



2021/2022 SOLAR STICKERS

school: Prof. Ivan Apostolov
teacher: Deyan Doikov
Sofia, Bulgaria

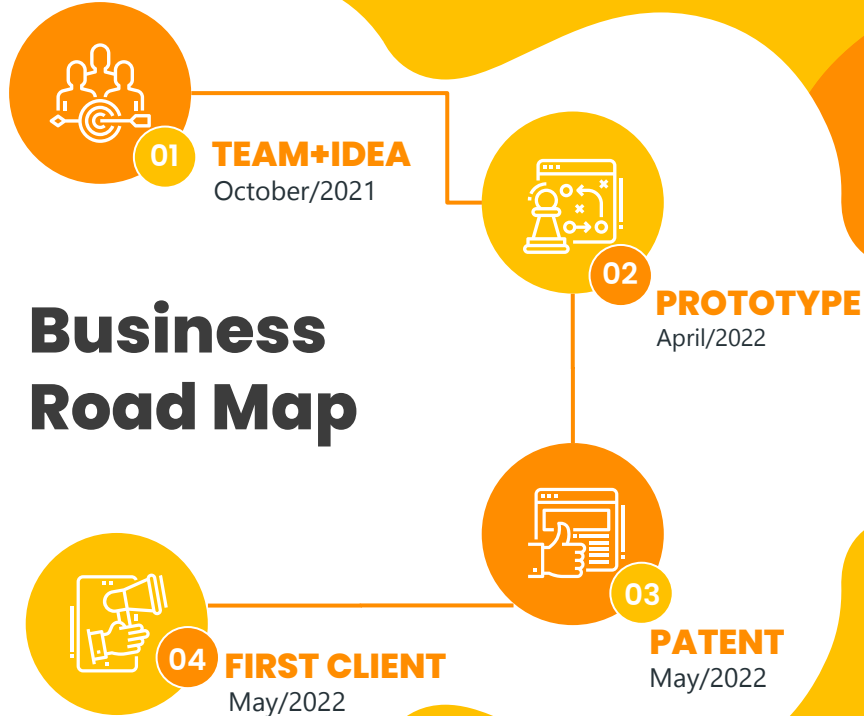
Email: **solarstickers@abv.bg**

Tel. **+359883909903**

Web: **solarstickers.wordpress.com**

01 EXECUTIVE SUMMARY

Business Road Map



THE PROBLEM WE SOLVE

Storing water in plastic bottles at temperatures above 40 degrees can be dangerous to human health.

The plastic from the bottle releases harmful microelements and swallowing them regularly with water intake can damage a person's health in the long run.

OUR PRODUCT

We produce stickers that stick or print to the water bottles and indicate whether the water is drinkable or not. When the temperature of the water in the bottle exceeds over 40 degrees the sticker changes the color from orange to yellow and indicates that the water is not drinkable!

02 PROBLEM OVERVIEW

OUR RESEARCH

We made a research in which we found out that 10 out of the plastic bottles are made of PET and PETE.

The marking indicates that this plastic is harmless and safe, but regardless of that the bottles should be stored away from direct sunlight. Because when plastic is heated by through direct sunlight, harmful micro-particles, which cause a series of harmful diseases to the human body.

OUR MISSION

We believe that everyone deserves clean and unpolluted water. So we made it our mission to minimise the consumption of polluted water.

We hope that one day our stickers would be a quality guarantee.



SCIENTISTS SAY

Researchers from Dublin have proven that a person can consume as much plastic as a credit card if they use products stored in plastic packaging on a daily basis.

At the moment, the research institute in Vienna studying the plastic in people's blood and are proving that this problem will soon become a global one.



Is it dangerous to drink water from plastic bottles stored in a car heated by the hot summer sun?

What harmful substances are released from plastic and what is their effect on human health? Assoc. Prof. Dr. Sotir Marchev warned that water in plastic bottles stored in a hot car leads to cancer and baldness in adults and to earlier onset of puberty in children.



The warning on the label of bottles to be stored in a cool place is not an advertising gimmick.

On the label of every mineral water bottle says that the water should be kept away from direct sunlight.

03 SOLUTION

OUR SOLAR STIKER HELP CUSTOMER TO BUY CLEAN OF PLASTIC AND TOXIC ELEMENTS WATER

Our sticker guarantee to customer that the bottle is been transported and stored correctly and it never been exposed to direct sunlight!

HOW DOES IT WORKS?

When the temperature of the water in the bottle **exceeds over 40 degrees** the sticker changes the color from orange to yellow **and indicates that the water is not drinkable!**



When the temperature exceeds over 40 degrees the sticker changes the color!



01

THE PROTOTYPE

This is our first prototype.

Based on our mutual work and research with our chemistry teacher, we found a special formula that changes color when heated and applied it to the design of our sticker.



02

THE PATENT

After discovering the special formula, we decided to protect it in the patent office and submitted the documents for patent registration.



03

THE FIRST CLIENT

Immediately after the filing of the patent, we found our first client, Pirin Spring, with whom we concluded a preliminary agreement for testing the product before its introduction into the commercial network.

OUR INTENTION IS THAT IN THE NEAR FUTURE, WHEN YOU BUY WATER FROM THE MARKET, IT WILL HAVE OUR STICKER ON THE BOTTLE, AND SOLAR STICKERS TO BE A GUARANTOR OF THE QUALITY OF THE WATER YOU BUY.

Our pricing strategy is to keep low price of the sticker, about 5 cents, and to benefit from the huge number of stickers printed on each water bottle.

04 MARKET AND MARKETING STRATEGY



We found that the most appropriate segments of consumers are active athletes, children and adolescents, mountaineers, and people engaged in outdoor activities.

We have already signed a contract with our first client, a bottling company for mineral and table water, which has established distribution channels both in Bulgaria and in many countries of the European Union.



In order to establish the product on the market, we plan to, with the help of our customers and government institutions, to make an information campaign for the proper storage of water, as well as the need for our product.

With our sticker, bottling companies will be able to prove to their customers that they care about their health by building a secure channel for quality production, transportation and storage at every stage of the distribution and sales process. Our sticker will be a guarantee of quality and competitive advantage.



OUR RESEARCH ON PRODUCT ATTITUDES

We conducted a survey among 120 respondents of different ages and interests and the data show:

100% of the surveyed mothers would like to have a guarantee for the quality of water storage.

100% of the surveyed athletes confirm that they would like the water they drink to have such a sticker as a guarantee of quality.

43% of respondents say they are not well informed About how to Store the water they consume.



05 OPERATIONS

OUR SECRET INGREDIENT,

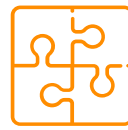
in which is the innovation of our invention is expressed, is hidden in a special powder, which changes color when heated by temperature or direct sunlight. At this stage we buy the powder ready from a manufacturer, but after we managed to find the formula we are looking for a way to just produce it in our production base more cost-effective.

INPUT RESOURCES AND PRODUCTION EQUIPMENT

For the production of stickers as input resources, in addition to the special powder, a special sticky paper and a special glue for gluing the powder to the sticker are needed.

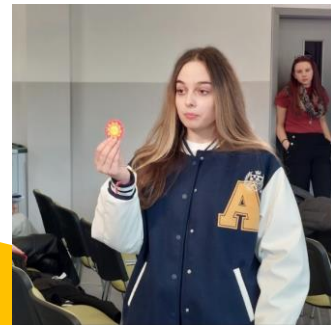
In the initial stage of mass production of the sticker will need standard printers for printing on paper, and special printers for sticking powder and machines for cutting stickers.

In the future, we plan to print the Solar Sticker directly on the manufacturer's label.



PRODUCTION PROCESS

In the following chart we will introduce you to the process of making our sticker from the input resources to the final product.



In the near future, with the mass entry of the product on the market, the process of 1) printing the design, 2) printing the powder, 3) cutting and 4) sticking the sticker will be fully automated, which will Reduce the cost of the sticker to 5 cents per sticker with profit included.

06 SALES & PROMOTION

TARGET GROUPS

BOTTLING COMPANIES

Our target customers are all mineral and carbonated water bottling companies in the European Union that are responsible for the health of their customers. This is the main group of customers to whom we have focused our sales efforts.

END USERS

The end users of our stickers will be the customers of the bottling companies. We have planned a special content marketing strategy for product and brand awareness.



**SOLAR STICKERS IN MEDIA
TV, RADIO & WEB**



SELLING TO BOTTLING COMPANIES

DIRECT SALES CHANNELS

The main way to sell bottling companies is through the main channels for direct sales: **1)** personal meetings; **2)** telephone calls; **3)** recommendations from friends; **4)** direct emails; **5)** contacting decision makers on LinkedIn. **6)** Website and Social Media. We also rely on selling to printing companies that work directly with bottling companies.

PRODUCT AND BRAND AWARENESS

WIDE PROMOTION OF THE PRODUCT AND ITS BENEFITS

To the public familiar with the problem of plastic in water and the solution through our sticker, we rely on a large-scale advertising campaign through all **1)** online, **2)** TV, **3)** radio and **4)** print media, ect. The campaign will be funded by bottling companies and government institutions.

CO-WORKING WITH ASSOCIATIONS AND INSTITUTIONS

We know that the best way to prevent people from drinking polluted water is when conservation of it become a state policy. That is why we plan work with national and European associations and agencies.

We have made our first sale of 500 stickers, with a special limited series of bottles of Pirin Spring, at the national golf cup in Pirin Golf and Spa on June 11-12, 2022.

**The event was an excellent
PR communication for our company!**

500 sales

07 MANAGEMENT



OUR TEAM AND RESPONSIBILITIES

MILENA TERZIEVA

CEO & Co Founder
HR Management
Marketing, Sales
Social Media

SLAVKA DERILOVA

COO & Co Founder
Production
Finance

VALENTINA HRANKOVA

Employee
Web and
Graphic Design
System Admin

HUMAN RESOURCE MANAGEMENT

At this stage in the development of Solar Stickers, it is represented by two owners and one employee. The management structure of the company is functional, as the activities are divided into several departments: Production, Marketing and Sales, Finance and Human Resource Management. The style of management of our company is democratic and favors each of the partners and employees to express themselves in this field of action, which is the best. The excellent communication between the team ensures the smooth functioning of our company. Our shared values and mission to protect human health through our product are a sure starting point that we all strive for together. In the process of work we work with the support of our teachers and mentors from the business.



08 PROFITABILITY

Solar Stickers' profit comes from the wholesale sale of our stickers to bottling companies. The selling price of one sticker is 5 euro cents, and the variable cost of making the sticker at this time is 2.5 euro cents. Profit margin of one sticker is 50%.

Price calculation

For the calculation of the unit price we have taken into account the cost of making a sticker + 50% profit margin. To determine the variable costs of a sticker, we have taken into account the cost of all necessary resources (in the form of materials for production, labor, energy resources, etc.).

In the near future, in automating the process of making stickers, and finding cheaper suppliers of the necessary raw materials for production, we aim to reduce the unit cost of the product and increase the profit margin.

Profitability

In our simple calculation, we found that in order for our company to be profitable at this level of fixed and variable costs, as well as sales price and profit margin, we need to reach 34,000 sales per month.

Break even point calculation	
Single sales price	€ 0,05
Variable price	€ 0,025
Contribution margin per unit	€ 0,025
Fixed cost	€ 850
Break even point (units)	34 000

Scalability

For a small market such as Bulgaria, we calculated that by selling a volume of 50,000,000 bottles of water on an annual basis and having a sticker on each bottle, we would realize a potential turnover of 1,250,000 euros. Imagine the profits we would make if we introduced our product to other markets, such as neighboring countries or the entire European Union.

*** ALL PRICES ON THIS SLIDE INCLUDE VAT AND IN EURO**

09 FINANCE

Balance Sheet Analysis

Our fixed assets are limited to the depreciated value of a laptop computer, because we intent to invest mainly in intangible assets (such as patent of the product). We compensate the negative financial result by relying on the financial support of a business angel (such as one of our parents). The level of liquidity at this stage of business development is optimal.

P&L Analysis

Sales in 2022 are limited to a trial series of 500 stickers. In order to reduce the incurred losses we contracted to sell services in the form of a license for future periods. Until we reach BEP we are going to rely on preliminary contracts for future sales.

Profit & Loss Statement		
	2021	2022
A. Revenues		
1. Sales of Stickers	-	25,00 EUR
2. Sales of Services (Licence)	-	500,00 EUR
TOTAL SALES AND REVENU (1+2)	-	525,00 EUR
B. Expences		
1. Costs of goods sold	0,00 EUR	70,00 EUR
2. Expenditure on external services	0,00 EUR	270,00 EUR
3. Remuneration costs	-	-
4. Depreciation costs	250,00 EUR	250,00 EUR
5. Overheads	-	600,00 EUR
TOTAL Expenditures (1+2+3+4+5)	250,00 EUR	1 190,00 EUR
PROFIT BEFORE TAXES (A-B)	-250,00 EUR	-665,00 EUR
C. Taxes		
1. Profit tax (10%)	-	-
NET PROFIT (A-B-C)	-	-665,00 EUR

BALANCE SHEET		
	2021	2022
ASSETS		
A. Non-current assets		
I. Fixed assets		
Laptop, computer, tablet	250,00 EUR	250,00 EUR
II. Intangible assets	0,00 EUR	250,00 EUR
Total Non-current assets:	250,00 EUR	500,00 EUR
B. Current assets		
I. Inventories	0,00 EUR	100,00 EUR
Materials	0,00 EUR	100,00 EUR
Total Current assets:	0,00 EUR	200,00 EUR
TOTAL ASSETS (A + B)	250,00 EUR	700,00 EUR
CURRENT LIABILITIES		
A. Equity		
I. Fixed capital	0,00 EUR	250,00 EUR
II. Current profit (loss)	0,00 EUR	-665,00 EUR
Total Equity:	0,00 EUR	-415,00 EUR
B. Obligations		
I. Loan liabilities	250,00 EUR	250,00 EUR
II. Obligations to staff	0,00 EUR	0,00 EUR
III. Obligations to suppliers	0,00 EUR	0,00 EUR
Total Obligations	250,00 EUR	250,00 EUR
C. Financing	0,00 EUR	865,00 EUR
TOTAL LIABILITIES (A + B + C)	250,00 EUR	700,00 EUR

10 FUTURE

OPPORTUNITIES FOR GROWTH AND DEVELOPMENT OF OUR COMPANY

We appreciate the fact that humanity is looking for a cheaper substitute for plastic to avoid harm to both humans and the environment.

That is why, in order to secure the future of our company, we are ready to develop our stickers in other areas, such as: **1)** reporting the expiration date of a product; **2)** Reporting of thawing of a product that should be stored below freezing temperature, etc. So our business has potential to scale worldwide.



OUR CURRENT & FUTURE FOCUS

Launch of the sticker in mass use through our first customer.

Optimization of the production process with the possibility of printing the sticker Directly on the bottle label.

Implementation of a mass information campaign in order to inform the public with the problem caused by the plastic in water and impose the sticker as a standard for water quality.

Optimize the supply process to find cheaper inputs.

Finding new customers.

Building new institutional partnerships.

Finding profitable sources of financing when you need financial resources.

Development of the sticker as an indicator for **1)** shelf life and **2)** thawed product.



SPECIAL THANKS TO!

Mr. Deyan Doikov (teacher)

Mr. Ivan Petrov (teacher)

Mrs. Milena Koleva (teacher)

Mr. Viktor Veselinov (mentor)

Prof. Ivan Apostolov High School (team)

Junior Achievement Bulgaria (team)

Pirin Springs (partner)

Pirin Golf and Spa Resort (our first client)

CREDITS: This presentation template was created by Slidesgo, including icons by **Flaticon**, and infographics & images by **Freepik** and illustrations by **Storyset**



CONTACT US:

Email: **solarstickers@abv.bg**

Tel. **+359883909903**

Web: **solarstickers.wordpress.com**

FOLLOW US AT:



solar.stickers