

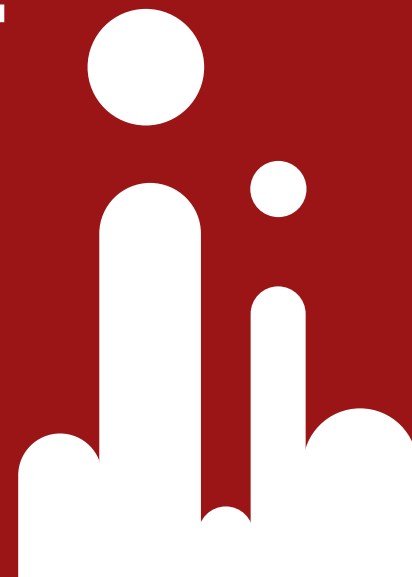


# SCRIBO

Teacher: Mgr. Eva Wolfová

School year: 2020 - 2021

Slovakia



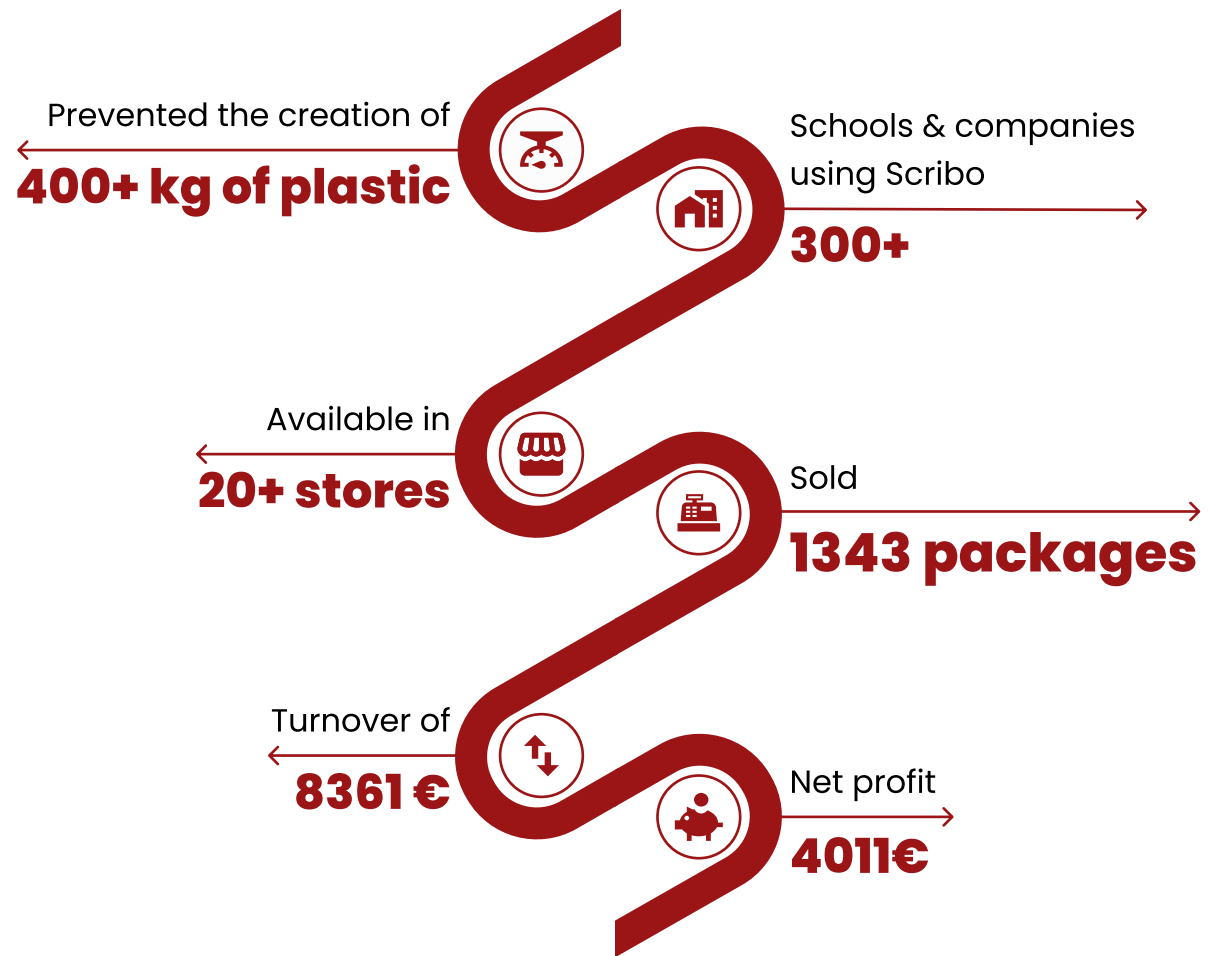
# Executive summary

## Mission

We are helping schools, companies and the society to become progressively more sustainable with a novel, ecological way of writing on whiteboards. We are raising people's awareness about the impact of plastic markers to eliminate thousands of tons of plastic created every year.

## Product

Scribo Markers are ecological whiteboard markers made of recycled wax waste. Our product offers a solution to dry-erase markers that are not being recycled, hence produce 700 000 tons of plastic waste every year worldwide. Scribo Markers will never dry out, don't produce any waste and last twice as long as regular markers saving both your money and the environment.



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# Problem analysis & Product

## Plastic dry-erase markers

Plastic waste from whiteboard markers is a global environmental problem. Every year 35 billion plastic markers are being produced worldwide. These markers are rarely recycled, as their plastic cover cannot be separated, generating 700 000 tons of waste that end up in landfill.

## Wax printers

Wax printers are a more cost-effective technology for big companies, but produce a considerable amount of wax waste that was being discarded until now. We collect this wax from several companies and agencies in Slovakia and then recycle it to produce Scribo Markers.



## Our product

Scribo Markers are zero-waste wax markers intended for writing on whiteboards and flip charts. They don't have a plastic cover so their whole body is used up when writing, thus not producing any excess waste. Their main additive is the waste produced by wax printers that we recycle by our production.

Scribo Markers are not based on a liquid base, so they never dry out. They last twice as long as regular markers, making them economically efficient. They guarantee vibrant colors and dry erasability without the need for cleaning agents. Their ergonomic shape guides even the smallest kids to the right grip. This makes Scribo Marker ideal for school, but also office environments.



# Production

We've developed the perfect Scribo Marker after performing more than 350 different experiments with several additives. Firstly, we melt the main materials in precise ratios to achieve comfortable writing and erasing qualities. Subsequently, the mixture is poured into molds that guarantee even cooling of the markers, thus achieving the desired stiffness.

We apply a layer of protective coating, preventing it from staining the hands of users. We ensure the consistency of the production quality using systematic checks on each production batch. Thanks to our customers' feedback, we managed to improve the composition of the coloured markers after a month of sales and achieved far more vibrant colours.



**1** weighing ingredients

**2** melting ingredients

**4** protective coating

**3** pouring into the molds

**5** packing

**6** final product - Scribo Marker

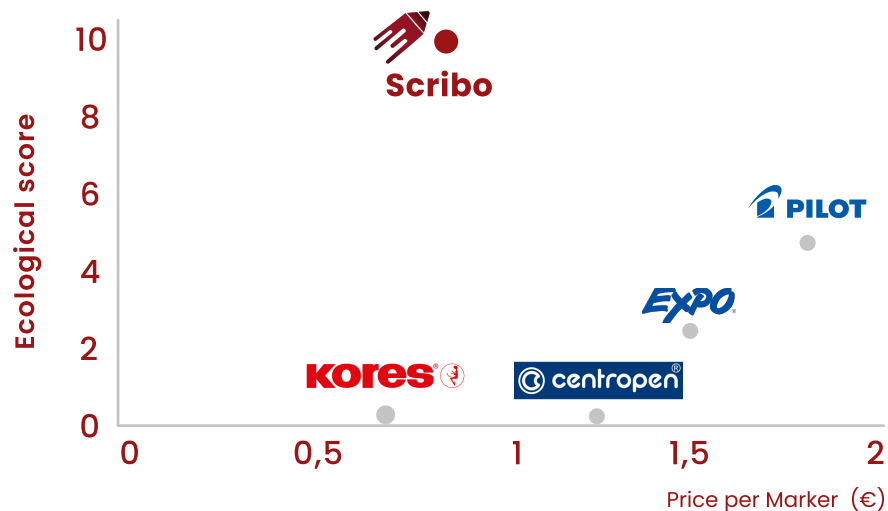
## Production optimization

Initially, we used silicone molds that could produce 3 markers at once. However, in order to supply the ever-increasing demand we had to speed up the production process. We researched the production process of crayons from other companies and decided to use a similar method as the Czech company Rodas. In cooperation with Technical University of Košice we have developed new 3D printed molds from high-resistant onyx material that allow us to produce 20 markers at once. In addition we have implemented a parallel production of several colors at the same time. These steps bring us closer to our goal of a fully automated production process.

# Finances

## Calculation of price

We determined the price based on the research of the market. By comparing the 30 best-selling whiteboard markers in Slovakia, we determined that the average price of the competition is 1.07 €/pc. We set a more favorable price of 5.00 € for a package of 6 markers, i.e. 0.83 €/pc, so that people don't have to choose between price and ecological impact. Unlike our competition, we save on the main component of the markers, which we collect for free. In our survey, 74% of respondents showed interest in this price out of total 156 respondents asked. The demand for coloured sets was 500% higher than for the black sets, which led us to increase their price to 6 €, which equalized the demand for both sets.



## Pay raise

After reaching the initial sales target of 300 packages, we increased the purchased quantities of materials in order to reduce the production costs. By establishing cooperation with suppliers PAM, Anjel and Frogpack, we have reduced the price of materials by 30%. Thanks to minimizing the material costs and optimizing our production, we've cut down the production cost per package from an initial 1,70€ to 1,10€. That allowed us to raise the salary of our employees from 0.6€/hour to 3€/hour.



|               | Plan    | Reality    |
|---------------|---------|------------|
| Packages Sold | 300     | 1343       |
| Turnover      | 1 650 € | 8 361,69 € |
| Profit        | 1 120 € | 4 011,30 € |

## Competition

Our only competitors are classic plastic markers for whiteboards. The best-selling ones are Expo and Centropen, but even their eco-friendlier alternatives, the refillable markers such as the Pilot V Board Master, still produce plastic waste.

We realised the value that the competition provides is a convenient way of writing on whiteboards. Our markers match the mentioned need and the unique added value of Scribo Markers is that they are zero-waste, they will never dry out and they are economically more beneficial.

## Profitability

The company's profit comes from the sale of the Scribo Markers with a margin of 75% and its delivery. This way, we were able to increase the issued share capital of 500€ tenfold after five months. Our variable costs represent the production price, which at current quantities is 1.10€ per package, including wages of 3.00€ per hour.

Fixed costs consist of one-time purchases of molds and production equipment. With the expansion to Germany and England, we estimate an increase in demand of 500%, based on our successful expansion to Czech Republic and Austria from April.

We strategically chose these countries based on demographic data of our website visitors and the number of schools in these countries. For this we will have to adjust our production capacity, by employing 2 people and purchasing more molds.

We'll split 75% of profit between our shareholders and 25% will be given to our employees as special rewards.

| Profit & Loss Account |   |                   |
|-----------------------|---|-------------------|
| A                     | Sales                                   | 8 361,69 €        |
| B                     | Purchases                               | 3 065,89 €        |
| C                     | Production Wages                        | 893,80 €          |
| D                     | Closing Stock                           | 290,00 €          |
| E                     | Cost of Sales (B+C-D)                   | 3 669,69 €        |
|                       | <b>Gross Profit (A-E)</b>               | <b>4 692,00 €</b> |
| F                     | Salaries, commissions and bonuses       | 380,00 €          |
| G                     | Stationery                              | 77,48 €           |
| H                     | Rent & Hire                             | 0,00 €            |
| I                     | Miscellaneous Expenditure               | 218,22€           |
| J                     | Registration Fee                        | 5,00 €            |
|                       | <b>Total Expenses (F+G+H+I+J)</b>       | <b>680,70 €</b>   |
| K                     | <b>Gross Profit Less Total Expenses</b> | <b>4 011,30 €</b> |
| L                     | Miscellaneous Income                    | 0,00 €            |
| M                     | <b>Net Profit (or Loss) (K+L)</b>       | <b>4 011,30 €</b> |
| N                     | Corporation Tax Payable (15%)           | 601,70 €          |
| O                     | <b>Profit after Tax (M-N)</b>           | <b>3 409,60 €</b> |
| P                     | <b>Appropriations of Profit (Q+R+S)</b> | <b>3 409,60 €</b> |
| Q                     | Dividends                               | 2 557,20 €        |
| R                     | Donations                               | 0,00 €            |
| S                     | Other                                   | 852,40 €          |
|                       | <b>Balance (O-P)</b>                    | <b>0,00 €</b>     |

| Balance Sheet |  |
|---------------|--|
|               | <b>Current Assets</b>  |
|               | Stock 290,00 €   |
|               | Debtors 0,00 €   |
|               | Cash at Bank 0,00 €  |
|               | Cash in Hand 4 221,30 €  |
| <b>(A)</b>    | <b>Total Current Assets 4 511,30 €</b>                         |
|               | <b>Current Liabilities</b>                                     |
|               | bank overdraft 0,00 €  |
|               | loans 0,00 €   |
|               | creditors 0,00 €   |
|               | Corporation Tax Payable 601,70 €                               |
|               | VAT Due 0,00 €   |
| <b>(B)</b>    | <b>Total Current Liabilities 601,70 €</b>                      |
| <b>(C)</b>    | <b>Balance (A-B) 3 909,60 €</b>                                |
| <b>(D)</b>    | <b>Issued Share Capital: shares at 5 € 500,00 €</b>            |
| <b>(E)</b>    | <b>Profit &amp; Loss Account (Profit after Tax) 3 409,60 €</b> |
| <b>(F)</b>    | <b>Shareholders Funds (D+E) 3 909,60 €</b>                     |

\*balance by June 21st 2021

*Wolfová*

Mgr. Eva Wolfová

# Marketing

## Target groups

### Schools

55,95% of sales

Every school gradually replaces classic blackboards with modern whiteboards, which raises the demand for markers. We contact schools directly via email from our database with a personalised offer. To spread the message of ecology and our product, we use online webinars focused on education or environment and Facebook groups focused on teaching.

### Companies

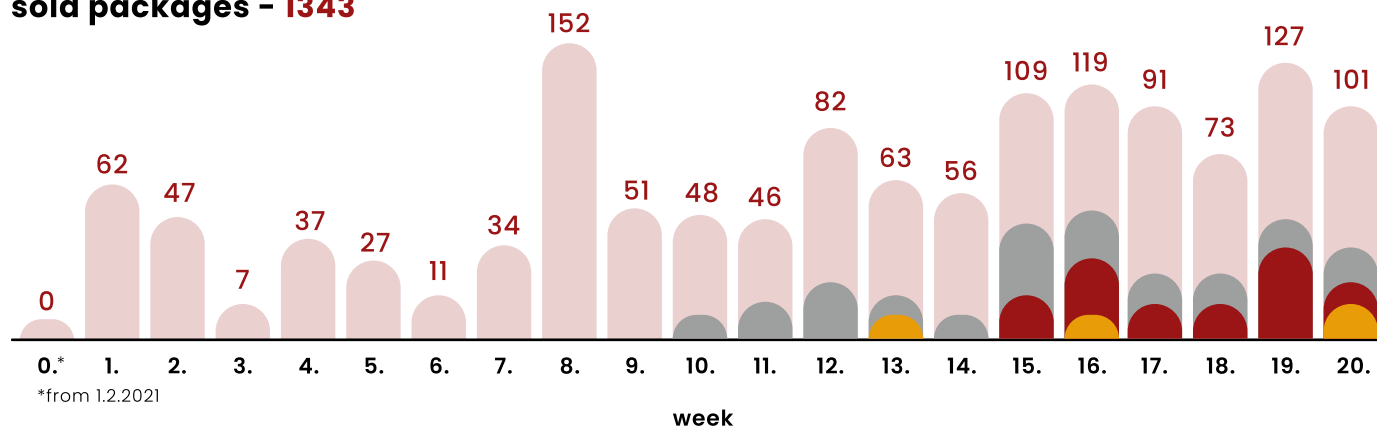
36,97% of sales

Companies, especially in the tech industry, use whiteboards during presentations and meetings. We promote our product through business-focused media articles, such as the Denník N, the most influential newspaper in Slovakia, and through social network LinkedIn.

### Individuals

7,08% of sales

**sold packages - 1343**



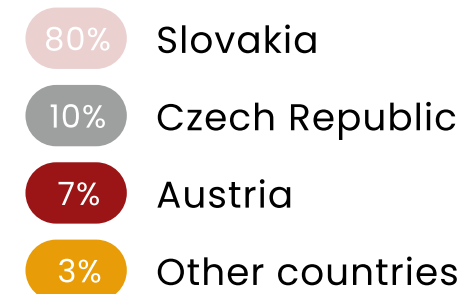
## Sales channels

### E-shop

We've sold 90% of all packages through our e-shop. By optimizing the website, we were able to increase the percentage of visitors who purchase Scribo Markers from 10% to 18%. In addition, our product is available on ekonetka.sk, but also on Amazon and Ebay for the whole European market.

### Stores

Despite our expectations, Scribo Markers have not been popular in zero-waste eco-shops, as only a few of their customers seek whiteboard markers. Based on this experience, we further focused on stationeries and wholesale office supplies, and Scribo markers are now available in 20 such shops.



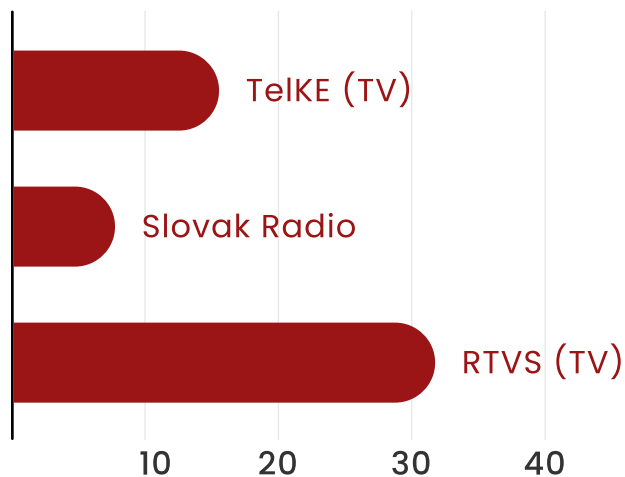
# Promotion



## Radio & Television

At first, after appearing in radios, we realized that this is not the ideal promotion of our product. Live interviews on television allow the viewers to see the product and its properties, which increases its credibility. Our predictions were confirmed when television appearances brought us almost three times more sales than radio appearances.

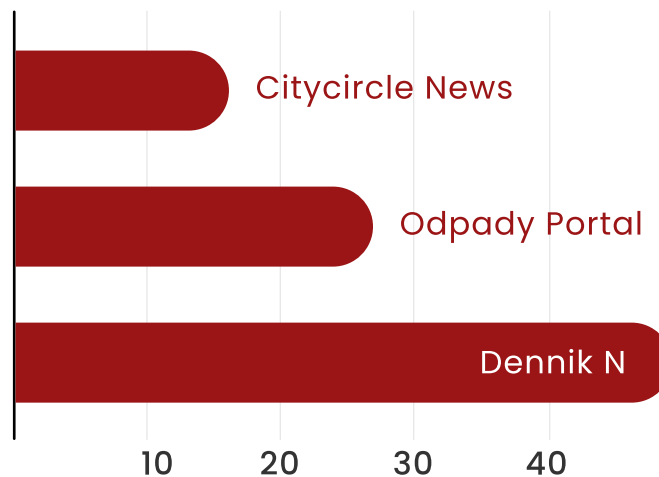
Number of orders after promotion



## Online media

We recorded the greatest impact on sales after appearing in online magazines that shared a direct link to our website. The best results are mainly achieved by national media focused on business and ecology, such as the economic section of Denník N newspaper and Odpady-portal blog site. Our appearances in the 5 most influential newspapers of Slovakia brought us 35% of our sales.

Number of orders after promotion



## Webinars

We promoted Scribo Markers through webinars focused on education and ecology to spread the idea of using recycled materials. We introduced our solution to the viewers more personally and gave them the opportunity to get to know us. We suppose that the great sales are a result of direct contact with the audience.

Number of orders after promotion





# The management

## Our Team

Our team consists of 20 members with clearly defined roles under 4 departments. We found out how important it is that more people are responsible for each area. It was crucial for us, especially during the covid-19 pandemic, since in case a team member was temporarily absent others could replace their role. We always evaluate completed tasks on weekly calls, where we also set our new short-term goals using the task managing application Trello. We use open-book management, where everyone has access to all the shared documents and spreadsheets, so that everyone feels like a key part of the team.



### Oszkár – CEO

Oszkár is an example of a strong-minded leader who doesn't take "impossible" as an answer. With his hard work he always brings the team to the best results.

**3 team members**

### Jakub – financial manager

Besides finances, Jakub with his critical thinking always comes up with new ideas to improve all of the other departments and the company itself.

**3 team members**

### Grétka – marketing manager

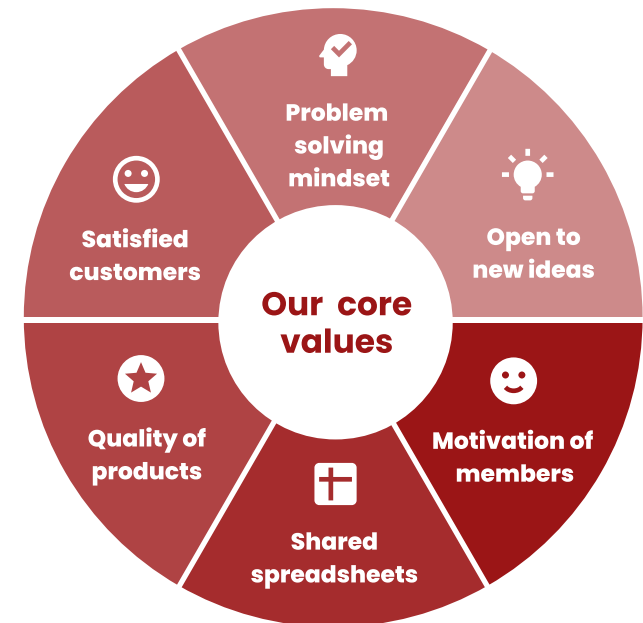
Grétka is our expert on marketing who effectively pushes the product to our customers. With her positive attitude, she always cheers up the whole team.

**5 team members**

### Mirka – production manager

Mirka is the silent force, who organizes the entire production, even during the challenging times of covid-19. This showcases her real operational skills.

**8 team members**



# Challenges

## Customer feedback

A common early feedback that we received was that our coloured markers were not vibrant enough or that they stained users' hands. We tackled this issue with a month of additional experimentation, and by the end of March 2021, we developed an improved version of Scribo Marker with vibrant colors and a protective coating layer that prevents markers from staining hands.

**Difficulty:** 🟡🟡🟡🟡🟡

**Solution:** Testing new additives

## Wax printers

After the increased demand for our markers, the wax from the Košice bailiff's office was no longer enough. We decided to contact the manufacturer of the wax printers, Xerox, to collect the wax waste in larger amounts. After promoting our product in the media, other companies producing this waste material, such as Freudenberg or Reprocentrum, also contacted us.

**Difficulty:** 🟡🟡🟡🟡🟡

**Solution:** Expand wax sources

## Production limit

To be able to keep up with the demand, in cooperation with Technical University in Košice we have designed new molds. They enable us to produce several markers at once. We have also 3D printed graduated cylinders to speed up the weighing process, thanks to which we can quickly measure the right amount of materials. These improvements allow us to produce twice as many markers in the same timespan.

**Difficulty:** 🟡🟡🟡🟡🟡

**Solution:** Production optimization

## Covid-19

During the covid-19 pandemic, most stationery were closed and the companies were forced to work remotely from home. This lowered the consumption of whiteboard markers. We've developed several scenarios with financial estimates. Eventually, we decided to focus mainly on primary schools that remained open.

**Difficulty:** 🟡🟡🟡🟡🟡

**Solution:** Change focus to primary schools



# Future

We are aware of the uniqueness of our product and the added value it brings to society, which motivates us in developing this idea even after the end of our JA student company. After seeing the success of Scribo Markers in Slovakia, Czech Republic and Austria, our goal is to enable the rest of Europe to write green as well.

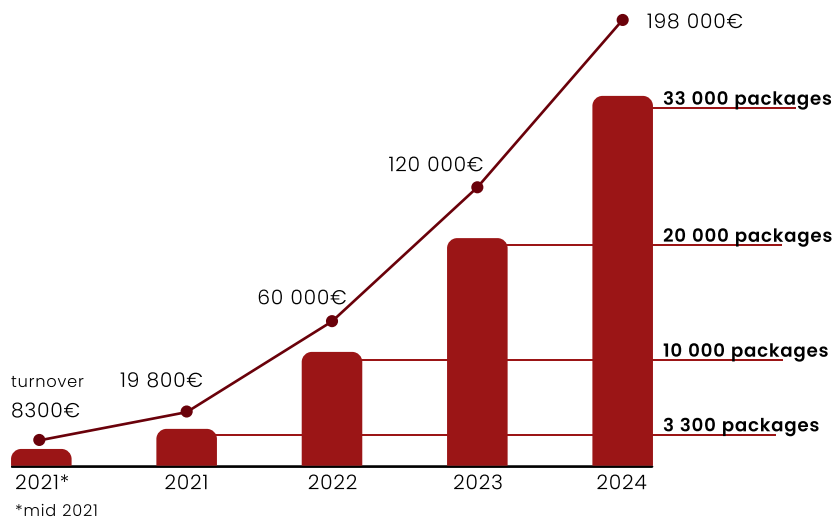
## Near future

end of 2021

We estimate the current share of our Scribo Markers on the Slovak market of the 2 million dry-erase markers at 0.3%, which we want to increase to 1% by the end of 2021. We have increased the sales from 200 to 350 packages a month. To achieve this goal, we need to maintain this rate of sales.

## Crowdfunding

In order to increase our production rate, we researched the production process of crayons of other companies. To accelerate the startup phase, we've launched a crowdfunding campaign on Startlab to finance our new improved molds for production, premises and 2 workers to supply the increasing demand. Thanks to these changes, we will be able to produce over 250 packages per week and reach our goal for this year.



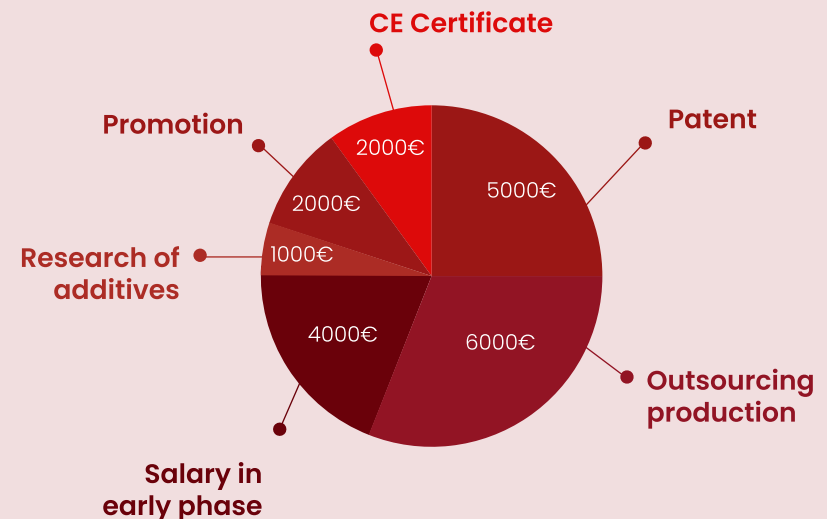
## Long-term

end of 2024

Our long-term goal for the next 3 years is to reach 10% of the Slovak dry-erase market and focus on increasing our share on the international market as well. We'll ensure the demand for our product by contacting Slovak and foreign schools and companies directly.

## Investment

We plan to raise a 20 000€ investment. So far, three private individuals and a startup accelerator called Crowdberry have contacted us. We will use this amount to get a CE certificate, patent, and gradually outsource the production. We will need 500 kg of wax waste, which is why we are currently in contact with Xerox - a manufacturer of wax printers.





## Special thanks to

PAM s.r.o. – supplier of pigment

iPaint – whiteboard manufacturer

Kaviareň Take it – pickup point of orders

Ľuboš Čapčara – photograph

Michal Šašala – expert from Technical University in KE

Alex Blandón, Lukáš Weiszer – mentoring

Gymnázium, Poštová 9, Košice

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