

# FESTERA

**WHERE TRASH BECOMES TREASURE**

**STUDENT COMPANY REPORT**

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**ESTONIA  
HUGO TREFFNER GYMNASIUM  
2016/2017**

# 1. EXECUTIVE SUMMMARY

Mission Statement - make living green so comfortable that it becomes a natural way of life



1. Add thin layer of composting powder
2. Throw in first waste
3. Add a bit of bacterial liquid
4. Plug in!
5. Keep adding trash
6. Add substances every two weeks
7. After 2 months, take out the humus!

Figure 1: Simple Manual



Figure 2: Impact

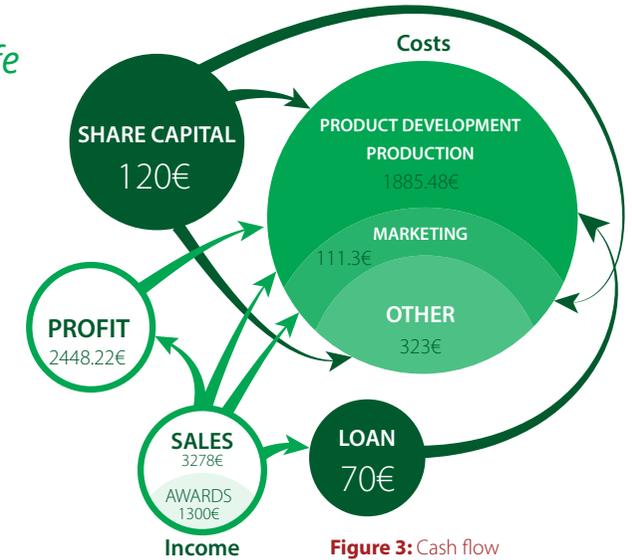


Figure 4: Company Timeline

## Product

Festera produces innovative bioboxes that recycle food waste in the home environment.

## Advantages:

- 10 times quicker than common composting
- no smell
- comfortable
- producing nutritious humus
- natural fertilizer
- indoors, operational around the year

Vision - Bioboxes are as common as smoke detectors.

## Looking Back

We have achieved all of our goals: reducing the carbon footprint of an average household, promoting sustainable recycling culture in general, improving our business skills as a team and doing all of that profitably.

We have created a complicated product in co-operation with over 30 specialists and enterprises. Festera biobox qualified for the CE certificate, the product is still in continuous development.

Festera has received 10 prizes from 6 different business and innovation competitions. Last but not least, Festera LLC was founded on June 8, 2017.

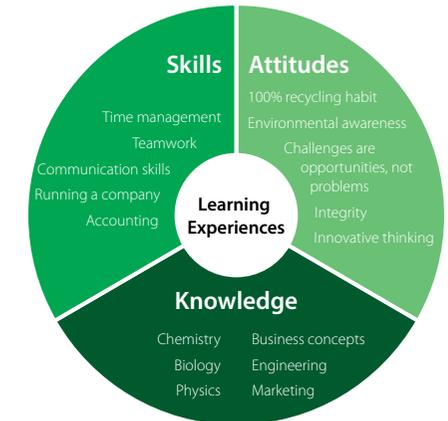


Figure 5: Learning Experiences

## Table of Contents

1. EXECUTIVE SUMMARY
2. PRODUCT
3. THE DIFFERENCE WE MAKE
4. PRODUCT DEVELOPMENT
5. BUSINESS STRUCTURE
6. MARKETING
7. RESULTS
8. CHALLENGES
9. FUTURE
10. ADDITIONAL INFORMATION

## 2. PRODUCT

*Festera produces indoor trash cans - "bioboxes" - that recycle biological waste. In less than two months all of the family's food waste is turned into a box full of humus.*

Our solution is unique and innovative - we use two microbiological substances, heating and ventilation. The process is user-friendly, extremely fast and odourless. Using a Festera biobox reduces the ecological footprint of a household by an estimated 8.3%<sup>[1]</sup>.

### Using the Biobox

Currently Festera produces two versions of the biobox - Magna (40l) and Minima (25l). When using the bigger version, an average 4-member family has to empty it once every 2-3 months instead of taking food leftovers out every other day. The volume of the trash is reduced by over 2 times during this time Using our product is passive - there is no need to take care of it daily. It takes about a month to produce humus with Festera, in standard outdoor conditions it would take about a year<sup>[2]</sup>. Electrical consumption of the biobox is marginal - when plugged in for a month, it takes

Gas	Festera	Festera + air	Safe limit
CO <sub>2</sub>	0,032%	0,097%	0,1%
CO	0,034%	0,034%	0,52%

**Table 1:** Amount of separating gases, ULS

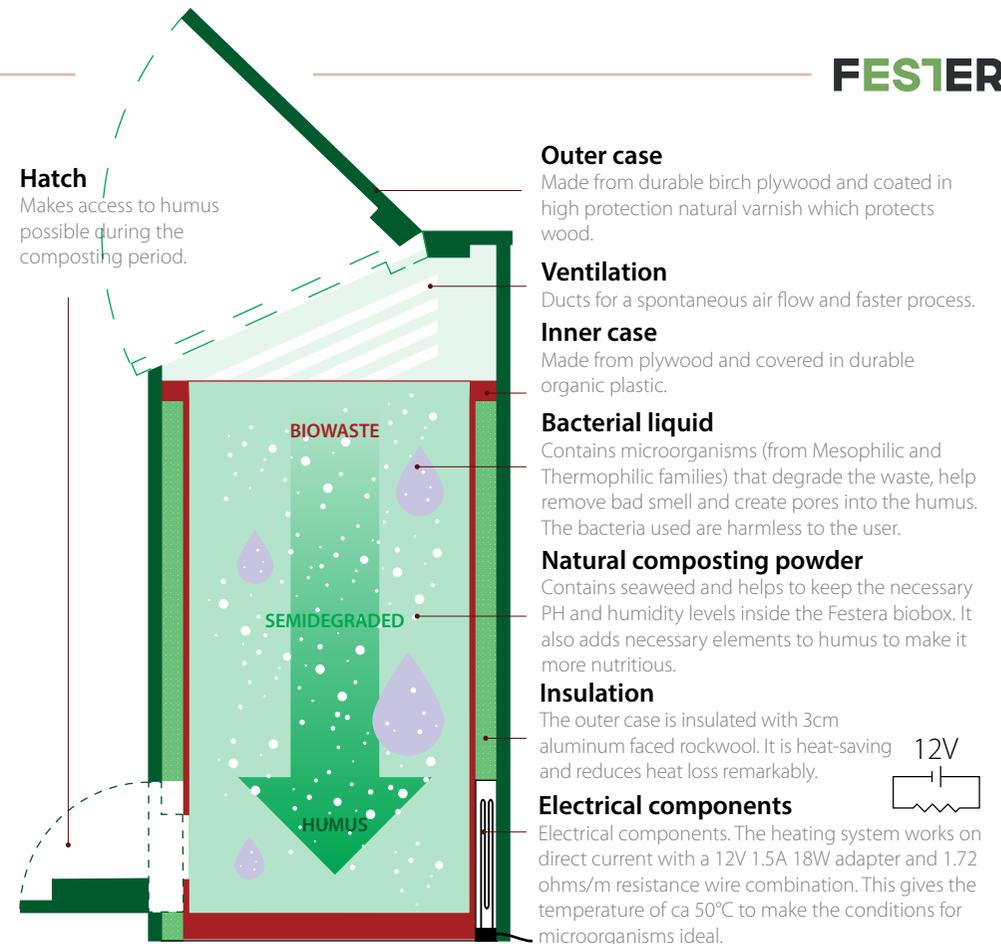
0.432 kW per hour and costs 9 cents per month for an average European citizen. 6-month set of two substances necessary for the process are included in the price of the biobox.

We were convinced from the beginning that we would continue as a limited liability company and therefore could give our clients a 2-year warranty. Considering the quality of components used in the production of our bioboxes we estimate their service life to be at least 10 -15 years.

### User Safety

Safety has always been our main priority. Fireproof varnish is used around the heater and the temperature only rises to 50 degrees. We tested the decomposing process successfully in Estonian University of Life Sciences to make sure that the amounts of separating gases (CO<sub>2</sub>, CO, CH<sub>4</sub>) are not harmful to the user (table 1). All the used materials are non-allergenic, the outer water-based polish is environmentally friendly. We have also paid attention to child safety - the corners of the lid are round. Bumpers avoid noisy closing of the biobox.

To ensure the safety of our product (and for marketing purposes), we found applying for the CE certificate<sup>[3]</sup> inevitable. It has been one of the most complex processes so far, as we had to conduct several safety



**Figure 6:** Technical Details of Festera Magna

tests at accredited labs. Our product had to comply with Restriction of Hazardous Substances Directive, The Electromagnetic Compatibility (EMC) Directive and General Product Safety Directive. Today we can proudly say that Festera's bioboxes and its solutions have been proven safe by the Technical Regulatory Authority of Estonia.

### Design and Functionality

We have designed 2 different versions:

Magna (40l) is optimal for an average Estonian family and the newer Minima (25l) was created in response to clients' feedback and research. Our aim is to create beautiful designs so the users do not have to hide Festera's bioboxes under their sinks, but can use them as a part of the decor. We have chosen minimalistic style to suit both cosy country houses and modern city kitchens. We also offer the option to customize the colour of your biobox for an extra fee.

### 3. THE DIFFERENCE WE MAKE

*We have taken the responsibility to promote green lifestyle, especially handling the waste correctly.*

#### Environmental Impact

Saving the environment should be everyone's concern - out of 17 warmest recorded years 16 have been after the year 2000<sup>[4]</sup>. Our product reduces the average user's carbon footprint 8.3% while actually making the users' life easier. This is quite a large impact since usually it takes so much effort to shave off even a percent or two. To achieve a similar effect per year, a person should stop using a car for a whole month or give up electricity for 3 months<sup>[5]</sup>. People do not recycle biowaste since it turns unpleasant really quickly; our biobox

surpasses these problems and allows easy and convenient recycling of biowaste. Carbon footprint of the production and of the electricity consumed is marginal.

Festera creates 3 main channels for preventing CO<sub>2</sub> from being released into the atmosphere. 1. It brings biowaste back to the natural cycle and keeps it from being burned and turned into CO and CO<sub>2</sub>. 2. Compost helps to bind carbon dioxide to the soil. 3. Self-made humus replaces chemical fertilizers - sources of harmful gases. In the long run, it saves fuel of garbage trucks.

**Ecological or carbon footprint<sup>[6]</sup>**  
*The total amount of greenhouse gas emissions caused by an individual, organisation, event or product.*

#### Social Impact

Perhaps even more important than the tangible results is the change in attitude towards recycling. Purchasing our product is a decisive step on the way towards sustainable recycling culture - over half of our customers have started to sort all of their waste.

Humus from our biobox is as nutritious as the other fertilizers but completely natural. Creating a community of self-supporting urban gardeners is a part of our vision - people growing at least some of their vegetables on their rooftops or in small gardens would be a great concept for

the future. Some clients already grow flowers, herbs, onions, etc. on their window sills on self-produced humus. Self-grown pure food is not so common these days - being able to follow the process is a great added value.

#### Educational Impact

We want to take children back to nature-awareness. The kids living in cities often have no idea where the carrots in their salad come from. It is exciting and educating for them to experience the trouble and pleasure of growing their own food. Using Festera and sorting trash is like a game - we have created a playful user manual for children. Learning by playing helps them take recycling and nature-friendly life for granted. It is our mission - people should live green lives without even noticing. Kids can learn the cycle of nature - soil is created, plants are growing, crop is harvested and it will turn into soil again. They can see chemistry and biology functioning in real life.

Sure we cannot reach all the families, not everybody cares about the green

#### The Trouble with Trash

*In Estonia only 20% of waste is being sorted. 1/3 of household waste burned is biowaste that could be brought back to circulation. Every year 160,000 t of CO<sub>2</sub> is thrown into atmosphere. As seen on figures 7 and 8 both the recycling levels as well as overall trash production vary a lot between the countries. In some of our potential target markets it is important to start with introducing green thinking since recycling is not so widespread, in other countries we can focus more on sales.*

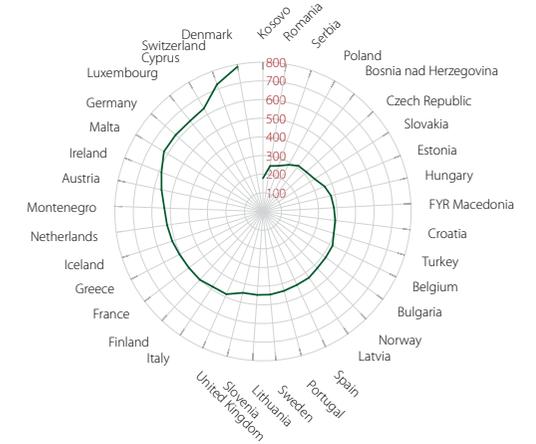


Figure 8: Municipal waste in kg per capita. Eurostat (2015)<sup>[7]</sup>

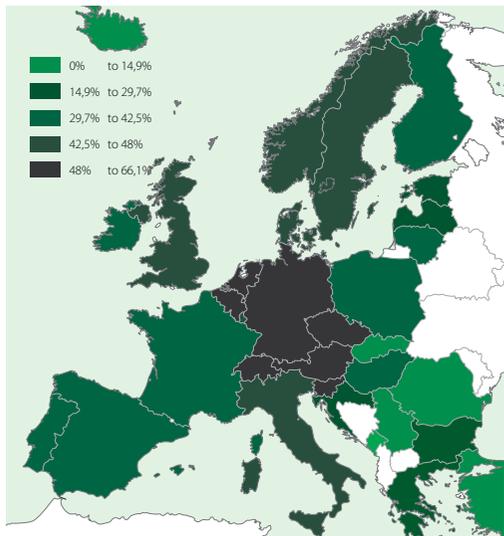


Figure 7: Municipal waste recycling rates. Eurostat (2015)<sup>[7]</sup>

way of thinking. To spread the mindset to as many kids as possible, we introduce our product and recycling in schools. We will start with pilot projects of taking our bioboxes to school corridors and canteens, our school has purchased 3 products, other schools have already shown their interest. Our vision is having our bioboxes in every Estonian school in a few years. Visiting schools offers a unique and constant marketing channel - people aware of green mindset are more likely to buy our product.

## 4. PRODUCT DEVELOPMENT

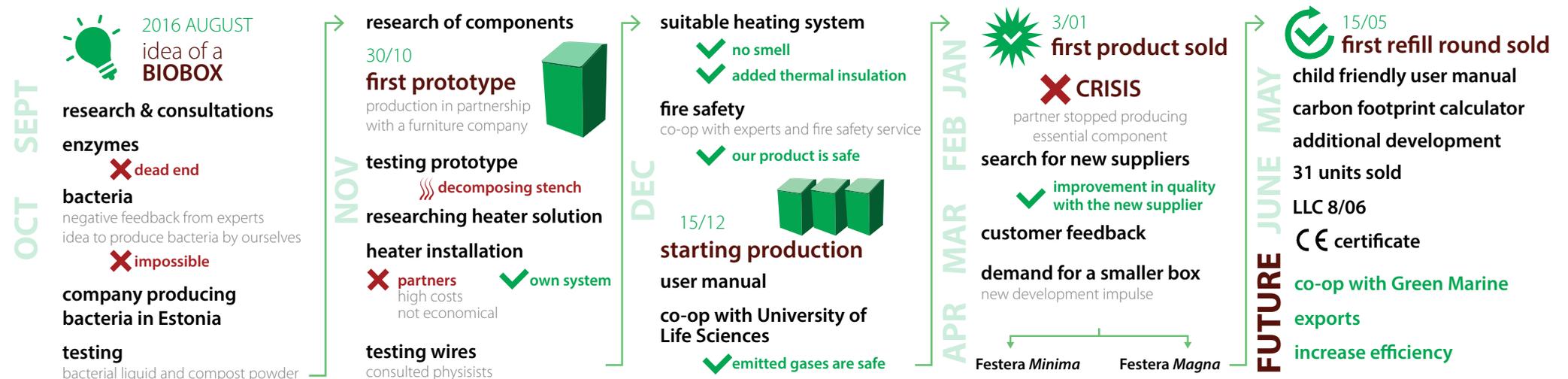


Figure 9: Product Development Timeline

Product development was both the most difficult as well as interesting process of the Festera experience. As can be seen on figure 9 the timeline of our biobox was not linear but had many branches and dead ends that had to be corrected or directed.

### From an Idea to Reality

Right from the start most people liked our idea of an indoor biowaste recycler but were pessimistic whether we could achieve a working prototype. We received negative feedback from business contest juries who doubted that a student company could realize this idea. Even our own teacher was afraid that we are not able to fulfill our dream. In part they were right: our first idea of producing our own strain of enzymes or

bacteria was not feasible. We had to find alternative options and came up with pre-produced bacteria. However, there are severe restrictions on importing such substances from outside the EU. The easiest solution turned out to be finding an Estonian partner, which we fortunately could.

### Sticks and Stones

One problem solved, another arose. On the third week of our tests the compost started to stink and fruit flies appeared. We found that the temperature of the compost was too low (about 30 °C). We put the testcontainer in a bathroom with floor heating for a trial, where the compost achieved a temperature of 40 degrees and the stench and flies disappeared<sup>[8]</sup>. We needed to find a compact and

energy efficient heat source. None of the ones available in stores suited our needs. We contacted physicists who gave us recommendations for building our own system. We found the perfect solution by trial and error: the final result was a resistor wire based heating system.

### Details Make the Difference

Simultaneously we worked on the outer design of the biobox. While working on the appearance, we were inspired by the Nordic taste of furniture. For the sake of user's comfort and preserving the inner part, we added an extra box into the plywood shell. Air outlets for the aerobic bacteria also function as decorative elements. Our product manager developed and installed the heating system and assembled the finished box

in a workshop by himself. At the moment our partners supply us with details, but the assembling is done by ourselves.

### New Projects

Later product development included launching a smaller version of the biobox as well as adding a hatch and getting rid of the inner plastic bag in the larger version. We have started cooperating with the Green Marine to produce much larger bioboxes for the use on Tallink ships. Hopefully we can use the the same solution for other business to business sales as well as in school canteens. Whatever the direction - we have learned that with a product like ours the development process never ends. You always have to look for new solutions to stay competitive.

## 5. BUSINESS STRUCTURE

Festera has four members: the CEO Kevin Reisenbuk, production manager Kris-Robin Sirge, marketing manager Joonatan Oras and CFO Sandra Vösaste. When a decision has to be made, we all have one vote and the majority wins. In case of a tie, the person responsible for the given field decides. We took care to divide tasks equally since we chose not to pay salaries.

### Target Group and Clients

Right from the start we considered our primary target group to be environmentalists and vegans (at least 15,000 in Estonia). These people care about saving the environment but vegans also produce lots of biowaste. The next larger target group is urbanised people living fast-paced lives. We call this the “much-money-little-time” group. They value comfort, small ecological footprint, keeping up with time and design. So far these estimates have been proven to be true as most of our customers come from these

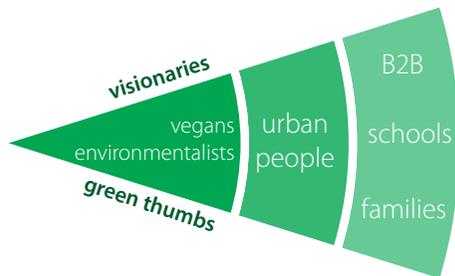


Figure 10: Target groups and potential clients

groups. Urban people can form even bigger part of the client base in the future because more and more cities are turning recycling mandatory.

A great opportunity for B2B sales arose in May when we received a cooperation offer from Green Marine LTD. It is the company in charge for the waste management in all bigger Estonian harbours and Tallink ships. Currently we are working on a pilot project to produce a special and much larger biobox for their needs. If the pilot turns out to be successful we can use the same product for other companies as well. The best scenario includes having the bigger versions of our bioboxes on more than 20 ships in a few years' time. Since they could not draw up a contract with a student company we had to establish our LLC already at the beginning of June.

### Competitive Analysis

We started our first competitive analysis before producing and renewed it continuously. Now we are proud to say that our biobox is unique - no other company producing recyclers for regular households uses the same solutions. We divided the competition into direct and indirect competitors.

Our bioboxes are innovative: they turned out to be unique in this market segment and price range, are readily

Competing Solutions	Festera's advantages	Their advantages
<a href="#">High-tech composters in USA</a> <i>direct competitor</i>	Low power usage, natural design, lower price, better for smaller kitchens	Automatic solutions, high efficiency, better known brands
<a href="#">Small simple boxes made of plastic or glass</a> <i>direct competitor</i>	Natural material does not smell, more efficient, more space for waste.	Lower price, washable in dishwashers
Municipal trash service <i>indirect competitor</i>	Saves time for users, low transportation costs, humus for plants	People are used to them
<a href="#">Solutions with earthworms</a> <i>indirect competitor</i>	Less care needed, more sterile, not everybody likes worms as pets, more waste can be processed, less restrictions for processed food, no insects	No power needed
Compost piles in gardens <i>indirect competitor</i>	Faster process, indoor possibility, no smell, usable	Easiest way to compost

Table 2: Competitive analysis

usable, and serve an exact purpose. We hope that this innovation will help keep Festera's bioboxes competitive on the market for a long time.

### Our Partners and Experts

We have had numerous partners and experts supporting us in the different stages of the complicated production. Since different stages needed different competence, we constantly looked for new experts. Biobox's wooden case is made by Estonian furniture company Sisuko who consulted us in developing the design and offered a place for building our final product. Estonian Environmental Investment Centre gave us an opportunity to participate in an educational contest with different

experts. The Centre of Creative Industries of Tartu facilitated the creation of our business model. We did easier design works ourselves, but bought most of the commercial photos and art & design service from our schoolmates. By doing so we were sure of the quality of the work and could also help young and talented people to get started.

We have co-operated with 3 leading universities in Estonia - University of Tartu, University of Life Sciences and Tallinn University of Technology. Universities helped us to boost our product to maximum efficiency and make it safe for users (electrical engineering, separation of gases and other scientific questions). Altogether we have consulted with 33 specialists.

## 6. MARKETING

We used an integrated marketing approach where all of the details supported our key values - environment and customer focus. This included a common visual identity for all our materials (logo, product design, clothing, sales stand, photos, etc.) and saving resources on every step. If it was necessary to have printed materials we used recycled paper. Our own accounting was totally paper free.

### Sales Channels - More is Better

We sold 25% of our products through social media, 30% at trade fairs and 45% through our webpage. In our long-term plans we see resellers increasing to 90%. Although the profit margin is substantially lower than of direct sales, it offers many benefits: lower marketing costs, pre-existing sales network, larger sales volumes, brand development, etc. This way we can also focus more on product development. Our product can already be bought at six eco shops all over Estonia and at the newest market in central Tallinn. We are also in negotiations with the largest hardware store and furniture shop chains in Estonia.

### Events - Polar Bears and Prizes

In addition to student company events, we started taking part in business and innovation contests for startups where we got our first experience with

mouth-to-mouth marketing and learned networking. At first we were not very successful since nobody believed we can actually create a working prototype. However, we got invaluable feedback and a lot of questions we had to find answers to. Later, when we had a sellable product we started winning prizes. Altogether we got 10 awards at 6 contests, with total prize money 1,300€. The most thrilling experience was literally jumping into the unknown and ice cold water - at Polar Bear Pitching 2017 in Finland, Oulu we had to pitch in an icehole. The event was not only our first international experience, but training in -20 degrees in Estonia and finally competing in Oulu among startups was the most fun we have ever had with our team.

## BRUSSELS 2017

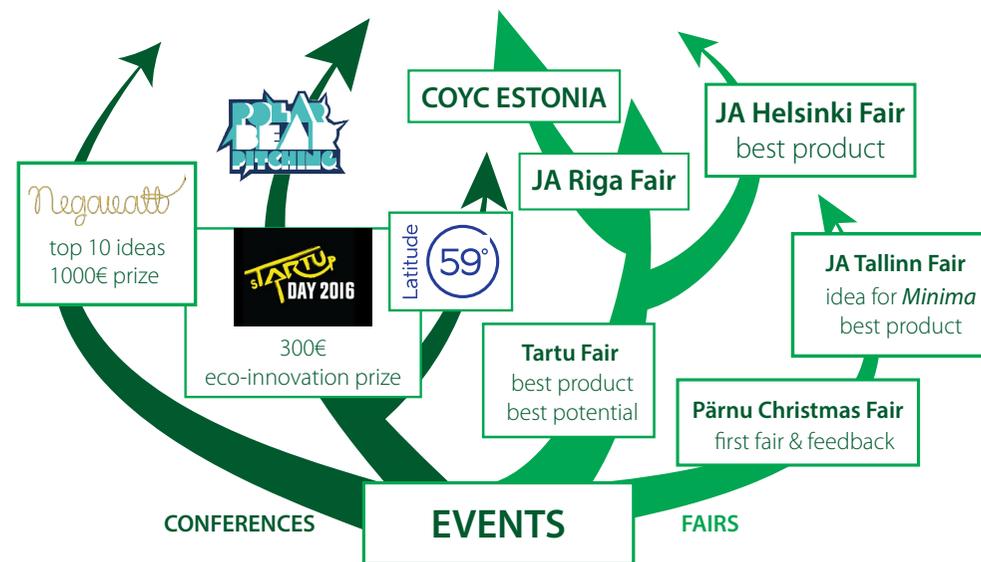


Figure 11: From Polar Bears to Brussels

Festera biobox. 4. Wide-ranging learning experience including problem solving, communicating with experts, etc.

### Festera in the Headlines

A great way to spread our green ideas and introduce our product has been media. About 30 publications and magazines (biggest newspaper among them) and 4 major radio stations in Estonia reflected our business during the student company period.

### “If you’re not on Facebook...”

Since we think that eco-friendliness should be planted to children’s minds in early childhood, we have given presentations in several conferences. In the biggest festival organised by University of Tartu we introduced recycling to more than 600 elementary school students. We were happy to receive an invitation to perform in a summer camp to 100 children.

The main benefits of these events are: 1. Free marketing as they are covered widely in Estonian media. 2. Both positive and critical feedback have helped us develop our product in unforeseen ways (e.g. the need for the CE certificate arose from one of these events). 3. Prize money that we reinvested in the development of the

Social media has been the best and easiest marketing channel for our target group. Our sponsored ads reached over 50,000 people. So far, we have sold 7 products through Facebook, therefore the expense has paid off (used 35 euros on advertising). We took our product to several photoshoots and made humorous videos for introducing Festera. Right now our Facebook and Instagram pages have more than 1,500 followers and our webpage has over 5,000 visitors. We have estimated that around 1% of our web page visitors actually purchase our product. In the near future we aim to bring up the number of visitors substantially through different campaigns. We will start with different challenges and have already reflected our clients’ success stories with Festera bioboxes.

# 7. RESULTS

We are satisfied that Festera has made a difference, but only a fraction has been done considering all the possibilities.

## Impact

Today our biobox is in 31 homes, including that of our prime minister mr Jüri Ratas. Since we receive active mouth-to-mouth and online feedback from approximately half of our clients, we are also able to evaluate the impact Festera has had on people. Our client families have recycled almost 6,100 kg of trash and created as much humus - enough for fertilizing about 20,250 flowerpots. These actions have reduced the collective carbon footprint over 3,500 m<sup>2</sup>.

Even more important than the tangible results is the change in attitude we have seen in people. Festera has a wider impact than only the direct waste our clients recycle. A lot of our marketing efforts are

related to presentations in schools and conferences. We can estimate that through our customers the bioboxes have been introduced close to a thousand people. During different events we have presented our product and way of thinking to at least 5,000 people. We can estimate that our message has reached about 200,000 people through media.

## Finances

Share capital was 120€. It proved to be insufficient and we had to take a loan of 70€ to develop the first prototype. We are grateful to our partners for flexible contracts and setting long term payment deadlines so we could get started. A huge relief was our first prize in January - 300€ from an environmental contest. Further development could already be financed from sales.

We estimate that the proper starting capital should have been about 1,000€. This was, however, more than our founding members could afford. The fact that we could manage with minimal funds was an invaluable experience: it forced us to get very creative analyse all different options.

## Cost and Price of Product

The changes in production costs (figure 12) were due to newer

production techniques and raw materials. The biodegrading substances for 6 months are priced at 25€. Since we buy these substances in bulk the cost per one package is 9€ for us.

## Profit and Reinvestment

Our total income was 4,768€ of which 1,300€ was prize money. Our costs were 2,319.78€, profit 2448.22€ and profit margin 51.3% (24.1% without awards). Due to a long product development period real sales could be started at the beginning of 2017. The sales have gone up steadily during the past few months and we are confident that a whole year of selling will guarantee us a much larger income.

Without development of the Minima, continuously developing the Magna and acquiring the CE certificate our sales could have fallen by around 20-30% but we could have saved 755 €, making our hypothetical profit around 3,200€. We made this conscious choice to invest most of our profit including prize money into product development early on. In the long run, this decision will guarantee us a steady basis for the future, but in the short term this has definitely cut our profit. All of our remaining profit will be reinvested into Festera LLC.

## BALANCE SHEET (EUR) 5.06.17

Current Assets		Liabilities	
Stock	161	Bank Overdraft	0
Debtors	0	Loans	0
Cash in Bank	2,096.22	Creditors	0
Cash in Hand	311	<b>Owners Equity</b>	
		Profit	2,448.22
		Share Capital	120
<b>Total</b>	<b>2,568.22</b>	<b>Total Liabilities and Owners' Equity</b>	<b>2,568.22</b>

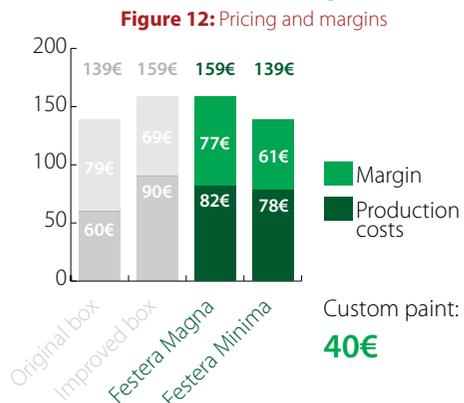
Table 3: Balance Sheet

## PROFIT AND LOSS ACCOUNT (EUR)

28.10.2016 - 5.06.2017

	Business plan	Actual	
<b>Income</b>		4,768	
Sales	3,570		3,278
Awards	0		1,300
<b>Materials (purchases)</b>	1000	1,146.48	
<b>Production Wages</b>	300	900	
<b>Closing Stock (2)</b>		161	
<b>Cost of Sales (B+C-D)</b>	1,300	1,885.48	
<b>Gross Profit (A-E)</b>	<b>2,270</b>		<b>2,882.52</b>
<b>Salaries, commissions and Bonuses</b>	0	5	
<b>Licences</b>		310	
<b>Registration fee</b>	5	13	
<b>Marketing cost</b>	100	106.3	
<b>Total Expenses</b>	105	<b>434.3</b>	
<b>Operating Profit</b>	<b>2,165</b>		2,448.22
<b>Miscellaneous Income</b>			
<b>Net Profit</b>			2,448.22
<b>Appropriations of Profit</b>	<b>2,165</b>	0	<b>2,448.22</b>
<b>Dividends</b>	2,165	0	
<b>Reinvested profit</b>	0	2,448.22	

Table 4: Profit and Loss Account



## 8. CHALLENGES

*The student company experience taught us that you can learn equally from achievements as you can from difficulties.*

experience that will be useful in business and in life.

### Scepticism

Belief in our product was the biggest challenge - our teachers said the it was impossible to make. It was hard to prove them wrong since we had little knowledge of biochemistry. Despite their disbelief and our dipping confidence, we started working and testing to achieve our goals. It turned out that solutions can be found if we engage ourselves with one thing at a time. Then we clearly understood the value of our team - when one of us lost motivation, three others were supporting. Team building events like swimming together in an icehole were great ways of motivating each other but also just having fun. The hope of changing the world has helped us to stay on track.

### Plan B

We needed very specific biodegrading substances for the process. Importing the substance would have been too expensive and time-consuming so we had to find a partner from Estonia. The other parts of our production are divided into many stages and that makes it vulnerable. We learned that we always need an alternative partner in case of some company dropping out of business.

### Getting Financially Creative

Money is always a problem. We had to make special agreements with our partners - paying them after selling the first products. While we were already making profit, we still wanted to continue developing our product and that was absorbing all our money. In order to maintain the quality, we took the risk of cutting expenses in marketing, but also understood that this is not a permanent solution.

### Current Bottlenecks

We have not managed to solve all the problems yet. Our product is not properly protected today because we had no financial capability to pay for a patent application. Although we have continuously worked on our selling skills, it would be wise to hire a professional salesman in the future to increase our selling numbers.

### No Need to Know Everything

Although we prepared ourselves for a difficult product development process, it took us longer than expected - losing the smell, creating the electrical system and proving its safety were not to be achieved in one day. The need for professional advice (chemists, biologists, electricians) also turned out irreplaceable. We learned quickly that we can not know all the specifics in an area as complicated as ours. Reaching the right people was also an

	Problem	Period	Solution	Lessons learned
product development	Lack of belief in our product and us	Sept - Oct	Continuing until the viable product was ready	Do not let pessimists discourage you. If you want to achieve anything, you have to keep going.
	Not enough knowledge in technical fields	Oct - Nov	Contacting experts and specialists	No need to know everything ourselves, co-operation is the key.
	Finding biodegrading substances	Sept - Oct	Internet research	It is essential to be thorough in your research
	Product development took a lot of time	Sept - Dec	Dismantling the problems, allocation of tasks	Careful but flexible time management is important
	A vital supplier cut off co-operation	Jan	Looking for and finding an alternative	You always have to have a plan B (or even C)
saleswork	Our solution is unprotected	Oct - today	Unsolved as we could not take patent because of the short life cycle of a student company and participation at fairs. Industrial design is not enough.	An innovative product has to be protected before sales starts.
	Not a product for trade fairs	Dec - today	Other channels in addition to fairs, learning by doing	Learn how to negotiate, how to close the deal
	No special sales person in the team	Dec - today	All members were involved in selling, marketing manager was responsible	Highly specialised sales people have to be hired for making contacts with big organisations in Estonia and abroad.
finances	Not enough starting capital	Oct	Loan, getting creative, making agreements, competitions, investing all the profit back	Make the most of the least, it is impossible to make big business lacking resources, investment is necessary.
	Great expenses on product development	Oct - today	Cheap/free ways of marketing	Marketing is the easiest way for cutting expenses, but it is not a long-term solution
	Further need of investments	Dec - today	Participation in start-up competitions	External investors is needed for growth and development.

Table 5: Experiences

During our student company activities we have constantly kept in mind that we want to continue with our ideas and products. We have also started to compile a new business plan that will help us clarify our goals for the next few years. This plan is by no means complete and will be changed a lot during the coming months. Nevertheless, we believe that a detailed plan will be necessary for acquiring additional finances as well.

According to the current sales plan and estimating that we will sell about 200 Festera Magnas and 100 Minimas, our revenue after the first year would be 45,700 EUR of which cost of production is 28,580 EUR. The need of paying VAT is already included in these numbers. Marketing and the first steps in further development would demand about 10,000 EUR. Even when we do not achieve the planned selling numbers, we will reach our break even point within the first year by selling around 150 products.

Our short term plans show us going down two distinct roads. First, we are continuing with sales to private homes and will try to expand this to other countries in the near future as well. Secondly, if we manage to develop a larger biobox suitable for companies we are directly stepping into waste disposal. This is a very promising area but surely poses new challenges we are still not aware of.

## 1 YEAR GOALS

Sales	Production	Marketing	Finances	Company
200 units sold to homes	<ul style="list-style-type: none"> <li>Cooperation with furniture companies.</li> <li>start offering Festera bioboxes to integrated kitchens.</li> <li>Minimal product development needed.</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation with Green Marine</li> <li>container version of biobox (garbage crusher, over a ton of waste at one time) financed by Green Marine.</li> <li>In case of failure finding alternative financing channels (incubators, accelerators)</li> </ul>	<p>Participating in competitions for start-ups and eco-companies, at least 3 contests per year. Not a steady source of income, prize money as a bonus.</p> <p>To continue as a viable company- the need for capital the next year is almost 20,000€. Several options:</p> <ul style="list-style-type: none"> <li>Loans. Hard to get from banks. State agency Kredex offers loan guarantees for expanding companies. Enterprise Estonia. A government agency offering financial aid of up to 15,000€ for starting companies. Our profile fits their priorities.</li> <li>Enterprise Estonia funds development of design solutions.</li> <li>Business incubators and accelerators. Connect new ideas with specialists, an invaluable tool for networking and investors. First steps have been taken.</li> <li>Angel investors - hard to obtain their trust. More realistic to find them through accelerators and incubators.</li> </ul> <p>Additionally all of our profit will be reinvested into our LLC.</p>	<p>Specialised sales people needed for faster growth. Different payment methods considered (option agreements, commissions)</p>
100 units sold to schools, businesses	<ul style="list-style-type: none"> <li>Reorganising for mass production. Cuts costs for a single biobox.</li> <li>Continuous work on design; attracting lifestyle oriented people</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation with a start-up Click and Grow and other companies. promoting ecological thinking.</li> <li>Joint marketing campaigns. Our values and products complement each other.</li> </ul>		<p>Affected more than 3,000 citizens recycling habits and created a strong client base that spreads our green ideas like fire.</p>
	Patent for new product meant for large businesses.	Competitions for start-ups and eco-companies, a great marketing tool		

## 3 year goals

<ul style="list-style-type: none"> <li>5,000 products sold to homes and businesses.</li> <li>Festera bioboxes on all Tallink ships, potentially on other shipping companies.</li> </ul>	<p>Accelerating production, widening manufacturing to more productive premises.</p> <ul style="list-style-type: none"> <li>Different high-design bioboxes for lifestyle focused upper-middle-class customers.</li> <li>Model range: still very compact models, also new designs taking biobox into the centre of attention in interior.</li> </ul>	<ul style="list-style-type: none"> <li>Expanding to Germany and Scandinavia (countries with larger incomes and eco-attitude), ca 20 million people with ecological thinking<sup>[9]</sup>. Reaching 1 percent - a huge market.</li> <li>Other European markets through e-sales.</li> <li>Attending large foreign trade fairs and exhibitions</li> <li>Enterprise Estonia funds participation of young companies with export goals.</li> </ul>	<ul style="list-style-type: none"> <li>Additional personnel (salesmen, product development)</li> <li>Fundings for expanding and export. The need for funding considerably higher for export than expanding on home market.</li> <li>E-sales on some of the markets, physical presence on others.</li> </ul>	<ul style="list-style-type: none"> <li>Affected more than 60,000 citizens recycling habits either directly or indirectly</li> </ul>
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Table 6: Goals



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## Acknowledgements

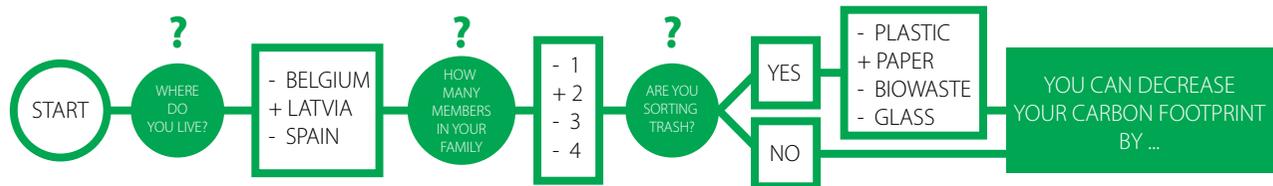
We would like to give our thanks to many supportive people who have encouraged us throughout the year:

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- Supporter Janeli Virnas
- Advisor Jürgen Jürgenson
- Our teacher Ülle Seevri
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- University of Tartu IdeaLab
- JA Estonia

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Festinator - Festera's fun and flexible app to calculate your ecological footprint



Festera comes from two words in Latin - festinate meaning quick and terra meaning land.

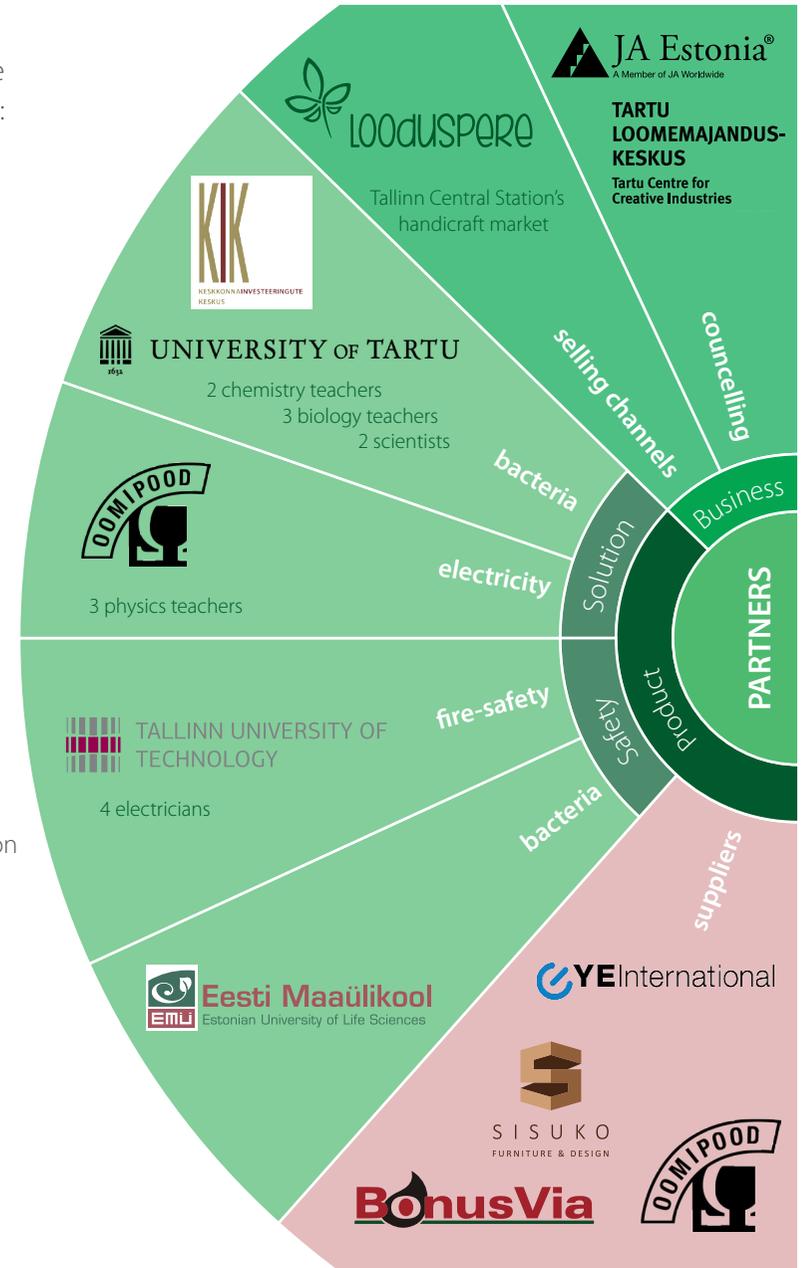


Figure 13: Partners



# FESTERA

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