



Plastic Whale

7XSUC0 Design for a sustainable future: specializing ENTERPRISE

Louis Bartholomeus	1436392
Jorg Eikens	1261886
Amira Grootaers	1435876
Julie Heij	1449575
Noah de Wijs	1371711

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Team Collaboration



In this chapter, the collaboration of our team into the process of this course is described. This entails how and where we worked together, how we divided tasks and topics we implemented in the meetings to stay motivated.

Meetings

Our group decided that on-campus meetings are the preferred option. However, in case someone is not able to come because of different reasons (have a cold or not being in Eindhoven at that specific time), then the meeting would be scheduled in an online version. One of the group members was not in Eindhoven for the first two weeks and due to this, all the meetings during that time were online. Afterwards, we decided that the Monday meetings would be held online because they were in the morning and some people had to travel some time to get to the campus. Meanwhile, on Thursdays, the meetings would be on campus, which facilitates the interaction of ideas and concepts between the group members.

Tools and platforms

Regarding online tools, we firstly used Outlook to contact each other. However, we shared our telephone numbers in order to create a WhatsApp group. From this platform, we distributed the tasks and planned a first meeting. WhatsApp was a good platform for quickly discussing problems or challenges we were facing when carrying out some sections of the assignment. The online meetings were held via MS Teams, because it is the platform we used for the lectures of this course and all team members were familiar with it. The first online meeting aimed to get to know each other better and discuss our expectations and personal goals for this assignment. Furthermore, we created a Google Drive word document where everyone on the team could add ideas or information for the final assignment.

Collaboration

We think that the main etiquette rules we should follow during meetings is to make clear and brief points; first search and then ask; and stay on topic, in order to make meetings the most efficient as possible. Also, respect each other's opinion to create a friendly environment where everyone feels that they can contribute towards the final goal; and submit assignments carefully, due to the different requisites that have to be fulfilled. Regarding the role of each of us in the team, we didn't assign a specific task for the different members. What we decided was to change the meeting minutes and chairing for every meeting we held, so that it is as fair as possible for all the group members. When we worked on campus, we first tried to book a room in order to have a private and silent environment to cooperate as much as possible. However, this option was not always available, and sometimes what we did was to reserve a table in the main floor of Metaforum, where a conversation tone can be held without bothering other people working or studying around you.

Staying motivated

Due to the current circumstances regarding Covid-19, the group members of this team have written down some tips regarding how to stay energetic and motivated.

Louis: What I think a good idea would be is to sometimes make small breaks between the meeting whenever these are long, and talk about different subjects which do not have to be course related, in order to strengthen our bond as a team. Individually, what I do in order to be motivated is plan on my Outlook agenda all the meetings and deadlines in order to have small and feasible objectives.

Julie: To keep myself motivated I try to start my study day early, so I am still productive. I often make a to-do list to keep an overview of my tasks, and it also gives a satisfying feeling to have a completed to-do list. Starting the day early allows me to have a study-free evening and relax with my roommates. Furthermore, I like to get to know my group mates on a personal level to keep the meetings fun. I think it would be nice to have lunch together (on campus or online) to get to know each other.

Amira: In these times of the pandemic and the second lockdown, gaining motivation to work on school sometimes is hard for me. Being able to study some days on campus really divides my study tasks and breaks and free time at home. In the group we have opted fast that we liked to meet each other on campus to have a good group dynamic and collaborate with each other. I hope to be able to continue this because real life interaction motivates me and makes the assignments and meetings easier.

Noah: I think it is important to clearly communicate between the team what tasks everyone is working on. Making sure there is a clear overview of the planning of the assignment will make executing these tasks much easier. Individually, I'm aiming to make sure I finish my tasks on time, so I can be available to help out other team members whenever this is necessary.

Evaluating meetings

Teamwork was evaluated at the end of every meeting. Each of us commented on the aspects which were being carried out properly, and also facets or features that could be improved. Furthermore, individual tips were also given in case that someone's cooperation with the team could be enhanced. Moreover, at the end of the meeting we set the schedule for the next meeting and conclude reviewing the tasks that had to be made.

Company Background



In January 2011 the company Plastic Whales was found. Its founder, Marius Smit, aimed to build a boat from plastic waste. The company organized the event called old Amsterdam plastic fishing. The first edition was in September 2011 and was an instant success. During this event, people gathered together to fish and clean plastic from the canals in Amsterdam. After crowding over more than 1200 people and 72 boats in the events, other companies started to show interest in participating. In March 2014 the company succeeded in making their first boat and was presented in the HISWA Boat Show. After this event, even more interest from larger investors and sponsors was gained and the Plastic Whale team grew. By November 2014, Plastic Whale became an official business, including shareholders, two new sponsors and a big bank loan.(Plastic Whale, 2019) In 2016, the company set up a Plastic Whale Foundation, a school program that aimed to involve children in the program.(Plastic Whale, 2019b) After creating more and more boats, the company expanded their goal and started creating furniture like office chairs and tables from the plastic collected. (Plastic Whale, 2021b)(Plastic Whale, 2021)

Plastic Whale's motto is to stop talking and start doing by creating treasure from plastic trash. They aim to inspire others and take action for plastic free waters. They are a small company but have plans to expand and reach more and more. Plastic Whale uses creativity, entrepreneurship and positivity to reach others and grow and convince fellow companies with their economic model. They split up their fishing sessions in three categories. Company clean up (online), company fishing and family & friends fishing. Company fishing consists of different companies joining Plastic Whale to go plastic fishing as a trip. As well as companies, families and friends can also go on plastic fishing trips using. They expanded their sources already, having the opportunity to go plastic fishing in not only the canals in Amsterdam but also in the old harbor in Rotterdam. Aside from these trips there is also the online corona proof company clean up.(Plastic Whale, 2021b) This aims to create a plastic free environment in your company. They also give workshops in the organized events to inspire and inform people on the company and current climate situation.

Current Business Model

To be able to spot opportunities for Plastic Whale and to improve its business model, it is important to understand its current business model. This is achieved by mapping and analyzing the model with the use of three tools: the Osterwalder Canvas, the Business Model Connect tool, and the Ecosystem Pie Model. These are further described below.

Osterwalder Canvas

Plastic Whale strives for a circular economy regarding plastics. Their value proposition can be split up in three parts. First, their economic value is the profit they get from the plastic fishing tours on the canals of Amsterdam. Secondly, the ecological value of this business is the reduction of plastics in the canals. This results in less microplastics which is better for the environment. The people who join the plastic fishing trips are educated on this topic and stimulated to take action. This way, they become more aware of the problem and learn how to treat the environment properly. This brings us to the last point; the social value. The social value is in this case the education of others. Plastic Whale is working on expanding their business to other cities in the Netherlands, Europe and even other continents. This way they would also create more jobs which adds on to the social value.

Plastic Whale's customers are very diverse. On the one hand the people who join the fishing trips are the direct customers of this business. They are either students who join the school program or people who join the public events. But everyone benefits from less plastic pollution, which makes them indirect customers of Plastic Whale. These fishing tours are the most important activities of the company. Promoting these tours is accomplished via online advertising on websites and social media.

The value proposition requires multiple resources. To begin, physical resources are needed for the plastic fishing tours. These are equipment like the boats and fishing nets, and also a place to store the collected plastic. When it comes to human resources, Plastic Whale relies on the skippers who give the tours and educate the participants. These resources are also the main costs of the organization. The maintenance of the equipment, transport and the storage together with the salary of the staff form the costs. The main revenues are then the fishing tours and sponsorships.

Plastic Whale has quite a lot of partners. In appendix 1.1 some of them are listed. One of the most important partners is Vepa. (Vepa the furniture factory, 2021) This company uses the collected plastics and turns these into a type of felt. This felt is then used to create new products, like chairs and lamps. By selling these products, more awareness is created because people see that with plastic waste new designs can be made. An overview of the Osterwalder Canvas can be found in appendix 1.2

Business Model Connect

When looking at Plastic Whale from the Business Model Connect perspective, it is hard to find a clear structure. Therefore, the business model is mapped (appendix 1.3) with a make-sell structure in combination with other stakeholders. The Business Model Connect tool helps to get an overview of these involved stakeholders and the value transfers.

The longevity of the value creation depends on the perspective you take when looking at the value proposition. On the one hand, the tours take up only a couple of hours which makes the longevity quite short. But on the other hand, the experience and gained knowledge might last a lifetime. There is no product ownership because the tours are a service. One pays for one tour per time. There is no option for a subscription.

The content that is used in the value transfers are services, knowledge, waste, money and reputation. This content is rather sustainable and transferred sustainably, except for the collected waste. The organization has to transport the plastics to a storage place and to Vepa. Doing this by car is not the most sustainable way. But Plastic Whale does create value while also keeping in mind the environment, by using waste as a raw material for their products. Furthermore, Plastic Whale creates social wealth; they educate others to increase awareness about plastic pollution and its consequences.

Ecosystem Pie Model

The ecosystem value proposition is plastic-free waters. This value proposition is directed to the community where this business is being carried out, because they will benefit from less plastic in their environment, but also potential furniture customers, due to the fact that from this plastic new furniture will be made.

The main actors involved in making this ecosystem value proposition is Plastic Whale, the identity that started this movement; volunteers and sponsors, which make this program economically feasible; the recycling companies, which modify the plastic for the production of new items; and finally, Plastic Whale's staff, who share their knowledge with the company. Plastic Whale has as resource its brand name, recognition in the community and connections with volunteers, businesses and sponsors. Their main activity is to organize events, school education programs and presentations. Volunteers and sponsors have as resources time, ideas, knowledge and economic capital. Their main action is to advertise in a community perspective the existence of this movement. Company staff members have as resources, expertise and knowledge on the domain. Their main action is to make Plastic Whale a worldwide business. Finally, the recycling companies have as resources their infrastructure, expertise and knowledge regarding this process; and their main activity is to transform plastics into pellets.

Plastic Whale captures value by gaining recognition in the market, economic profit and integration with the community. Furthermore, volunteers capture value by creating new networks with other people, social interaction and acceptance and respect from their community. Sponsors receive self-esteem, feeling of belonging to a community and also acceptance. Moreover, the staff obtains economic profit and labor experience in exchange; and finally, sponsors get advertisement for their business, recognition and acceptance of the community.

After having analyzed the different actors in the EPM, we can define how risky each actor is from the perspective of making the ecosystem value proposition happen. From our point of view, we believe that the riskiness of most of the actors is low, except for the sponsors and the recycling companies. Support of sponsors may be affected by the image of Plastic Whale towards the community and recycling companies might be unwilling to offer that service because of lack of profit. Regarding dependence on the ecosystem, we think that most actors have low dependence on the ecosystem, except for Plastic Whale as well as their workers, which we consider that their dependence could be considered medium or high, as their income depends on the development of the business. A visualization of the ideas explained above can be found in appendix 1.4

Company Context: Regime analysis

In order to analyze the current and possible business model strategies for the company as well as its competitors, it is important to analyze the sociotechnical system in which they are active. This system is often referred to as the incumbent regime, which in this case is the circular plastics industry. This regime is incredibly large and complicated, so the separate regime dimension and their element will be analyzed. The following regime dimensions will be considered: Policy and regulations, Infrastructure, Culture and symbolic meaning, Techno-scientific knowledge, Markets and user-practices, Technology and Industrial networks.

Regime Dimensions

Policy and regulations

The first dimension to consider is the current policy and regulations around the regime. Two elements are important in this dimension: Government policy and the regulations in the industry itself. Government policy includes aspects like laws and guidelines from certain governing entities such as the European Union that influence the regime. As an example, the European commission introduced a law in 2019 which would ban certain single use plastic items. These types of policy decisions directly affect the way in which the regime operates, as all companies active in this industry will have to adhere to these policies. The second element regards aspects surrounding existing industry regulations. In contrast to government policy, these regulations relate to how the existing regime operates, as there is often one dominant strategy across the entire regime. In this particular regime, it is focused on circularity, so all activities in some ways relate to this general strategy. As a more specific example, there are several organizations in this regime made up of stakeholders who work together and thus follow similar regulations. A good example of this in Europe is the Circular plastics alliance.

Infrastructure

The second dimension relates to the overall infrastructure of the regime. The two most important elements are the current infrastructure around recycling as well as the various other options. The majority of the current infrastructure in the circular plastics regime is centered around recycling. Existing plastic waste is reprocessed using recycling techniques in order to return it to the beginning of the value chain. While much of the regime is currently focused on the recycling of plastics, there are other alternatives to deal with plastic waste. One example of this is a product service system, where companies sell products as services which the consumer gets to use for a certain time period. This increases the lifespan of products and reduces the amount of waste from products that are thrown away because the customer no longer needs them.

Culture and symbolic meaning

The third dimension covers the cultural and symbolic meaning of plastics. The two elements to consider are the current image of plastics and people's climate consciousness. Plastic has been a prominent product during the last 20-30 years and its production and consumption has increased significantly. As a result, plastics have gained a clear image as a cheap and disposable product. An article from Arizona State University which discussed the negative consequences of plastic put it quite clearly: 'Single-use plastics — such as cups with straws, takeout containers and water bottles — are so common in our culture of convenience that we often don't give them a second thought.' In direct contrast to these stands the increase in climate consciousness in today's culture. While the general image of plastics remains, more and more people have started to become aware about the current state of the climate. The general opinion of various aspects regarding the climate have started to drastically change over the last few years. This also extends to the plastics industry, as peoples opinions on single use plastics have changed drastically. According to a public poll in the UK form 2019, the majority is in favor of banning single use plastics (54%) (Oceana, 2019).

Techno-scientific knowledge

The fourth dimension relates to the techno-scientific knowledge of the regime. The important elements consist of the knowledge on the production cycle, as well as the expansion towards circularity. Much of the techno-scientific knowledge in this regime is focused around the production cycle. While circularity is a more recent development, the overall plastics industry has been around for a while. Much of the current techno-scientific knowledge relates to efficiency, such as an article in the journal of energy and environmental engineering regarding the efficiency of energy use in the production of polymers (Khripho et al., 2016). The techno-scientific knowledge regarding the circularity aspect of the regime is not nearly as developed. This core part of the regime is still in its earlier stages of development, so the knowledge base is still being developed.

Markets and user-practices

The fifth dimension covers the markets and user practices in the regime. The two elements to consider are the nature of the market and the recycling practices of users. The market of the circular plastics regime presents an interesting case, as the traditional plastics market is quite old with many defined market practices. In contrast, the market developments towards circularity in the regime have happened much more recently. In this market, it is also important to consider the user practices. In this case, an important factor is the recycling practices of users. Much of the plastic waste from the market comes from the users who buy the product. In order to achieve circularity, this plastic waste has to be recycled and users are often responsible for this themselves. Providing a

robust recycling infrastructure can boost recycling rates of customers. This is the case in the Netherlands, where roughly 37% of plastic waste was recycled in 2017 (WUR, 2021).

Technology

The sixth dimension covers the underlying technology of the regime. The important elements to consider are the technological advancements regarding recycling and further circular options. The most prominent technology in this regime as of now is recycling. In the pursuit of circularity, recycling is a relatively simple step which can massively increase the sustainability of the regime. There are many startups in this regime such as our company as well as bigger companies like ocean cleanup which focus on recycling plastic waste. There are other technologies which can be utilized to promote circularity, such as directly reusing products. The technology behind this part of the regime is currently underdeveloped, as much of the focus lies on recycling.

Industrial networks

The last dimension includes the industrial networks within the regime. The important elements to consider are the established industry networks and the stakeholder networks. The regime for circular plastics has evolved from the traditional plastics regime, which means much of the established industry networks of this previous regime still exist. While new networks are being implemented into the regime, most of the traditional networks around for instance the production and the distribution of plastics still persist. In contrast to these physical networks, the regime also has a number of networks between the different stakeholders within the regime. One important example is the interaction with various governmental institutions such as the European Union.

Opportunity spotting

In this chapter, the business models of four companies are analyzed, aiming to find parts that can be transferred to the business model of Plastic Whale. Two of the analyzed companies are competing companies and the other two are companies that went through a similar development. These analyses are further described below. Finally, this chapter discusses three innovative solutions that are based on business model research.

Competing companies

By looking into the business model of competitors, it is possible to find parts of that business model and transfer it to your business model to improve it. Therefore, two competitors of Plastic Whale are analyzed below using the Osterwalder Canvas and the Business Model Connect tool. Then, the similarities and differences are discussed after which the transferable parts are explained.

The Great Bubble Barrier

The first competitor we chose is The Great Bubble Barrier as they collect plastics from rivers and canals, and is a Dutch start-up in Amsterdam, just like Plastic Whale. The Great Bubble Barrier does this with the help of tubes with holes with air. This creates an upward thrust which brings the plastic waste to the surface of the water. This way, the plastic can be collected more easily by the systems on the riverside. Using air makes it also more fish- and ship-friendly. Their business model is analyzed below using the Osterwalder Canvas and the Business Model Connect Tool.

Osterwalder Canvas

The value proposition of The Great Bubble Barrier contains three main points. Firstly, their ecological value concerns the reduction of the amount of plastics that ends up in the oceans. This way, they save lives from many animals that ingest microplastics or get entangled by it. Secondly, by investigating the plastics and collecting the data, they contribute to the knowledge on plastic pollution. They aim to increase awareness about this problem. This is the social value of their value proposition. At the bottom of their list is the economical value. Their main income is earned by constructing the Bubble Barriers.

Customers of The Great Bubble Barrier are municipalities and water management boards who want to minimize the plastic litter in the rivers or canals in their area. The Bubble Barrier will save them a lot of costs. With only a one-time payment, this is a very beneficial investment. These are also the main revenues of the organization. At the beginning of their career, the company was awarded multiple prizes, which allowed them to do pilot studies with their Bubble Barriers. In 2018, they started a crowdfunding campaign to fund their very first Bubble Barrier. Quickly after this, the organization was accepted to the second part of the accelerator program of the EU which gave them more resources, knowledge and tools to build on.

The Great Bubble Barrier already has quite some partners. Appendix 2.3 Shows an overview of these partners and the visualization of the Osterwalder Canvas can be found in appendix 2.1.

Business Model Connect

With the Business Model Connect tool, it is easy to map the value transfers between different stakeholders. The schematic of the business model of The Great Bubble Barrier can be found in

appendix 2.2 The basic structure of their business model is a make-sell structure. They sell their Bubble Barriers to municipalities for which they receive money. The longevity that is used in the value creation is durable. The tubes through which the air flows can be used for a long time and with good maintenance its lifetime can be prolonged. As explained in the previous paragraph, the product ownership is in the form of ownership. The Bubble Barrier belongs to the customer after the construction is finished. Furthermore, the customer pays per unit and pays only once.

The business model of the organization is rather sustainable. Their value creation lasts for a long time and focuses mainly on ecological value instead of economical value. With their business, they contribute a lot to the environment.

Similarities

Firstly, both Plastic Whale and The Great Bubble Barrier are Dutch start-ups that began with local projects in Amsterdam. They both aim to expand their business to other cities and countries. Secondly, they aim to educate others to raise awareness about the plastic soup problem. They hope that this results in less litter in the canals which is their ultimate goal. Lastly, the organizations reach their customers through the same channels. They promote their business by online advertising via their site and social media.

Differences

The biggest difference between these organizations is that Plastic Whale uses the collected plastic litter to create new products, which makes them contribute to a circular economy. The municipalities who have a Bubble Barrier can decide for themselves what happens with the waste. Next to this, the organizations differ in the applied techniques for collecting the plastic. Where Plastic Whale uses boats and fishing nets, The Great Bubble Barrier uses an innovative technique which doesn't require any manpower after the construction of the tubes. Lastly, Plastic Whale builds on volunteers who join the fishing trips. The Great Bubble Barrier on the other hand has a permanent team of employees who work on the projects.

The Ocean Clean-up

The Ocean Clean-Up was founded in 2013 as an invention of a Dutch student Boyan Slat at the age of 18. It is a non-profit organization to spread awareness and reduce plastic waste.(The Ocean Cleanup, 2021) The foundation is focused onto cleaning up the large amount of plastic waste in the oceans and rivers in the world using the ocean cleanup invention.(*Ocean Cleanup*, 2020) The invention consists of a large arced fishing net to catch all plastic waste. The first mission called the great pacific garbage patch took place into the Pacific Ocean and was estimated to remove 50 percent of the plastic waste every five years.(The Ocean Cleanup, 2021a) Aside from cleaning the oceans an inceptor is also invented to prevent the plastic pollution from happening. It is 100% solar-powered and extracts plastics autonomously. (Peytavin & Slat, 2021)

Osterwalder Canvas

In appendix 2.4 you can see that the values of the company are divided into the three topics of the economical, ecological and social value. The service of the cleanup is offered in a long during project that collects plastics and transforms them into large usable components cleaning the polluted oceans. The needs of the social aspect as well as the ecological aspect rely upon the improvement of sustainability and climate through this company. Seeing as plastic pollution not only impacts the environment but also the health of humans. It is also valued in the economic aspect as nowadays the

estimated amount of money put into cleaning and preventing plastic pollution is between 6 and 19 billion USD. This is declared from the impact on tourism, fishing and aquaculture. They deliver the value of ensuring a more clean ocean to the customer as a service and eco-efficiency and introduce an innovative way of recycling plastics.

The company is a non-profit organization and founded to clean up the pollution and therefore optimize the living conditions of people all over the world. Therefore, the most valued customers are the ones having benefits from this clean up in the areas of governments but also fisheries, environmentalists and overall citizens.

The organization has four different categories of partners. First and most important, the most generous partners including the Dutch government. Secondly, the official partners collaborate and sponsor the company. Thirdly, the academic partners which consist mostly of universities and colleges all around the world. And lastly official supporters and suppliers. See appendix 2.4 Aside from these partners, customers also can make independent donations to fund the cleanup.

Business Model Connect

The business model of the Ocean Cleanup is visualized with the business model connect tool, see appendix 2.5 The model consists of a multi-sided symmetrical structure. Seeing as it is a non-profit foundation that aims for awareness and is mainly funded by donations and partnerships. Aside from this, an income is also gained through (re-)selling products to symmetrical parties for use. The company gathers the product supplies themselves to resell and for social and ecological value to clean up the oceans. Products found are sold or resold.

Ocean cleanup consists of a very social and ecological sustainable business model. As the foundation is aimed to raise awareness for the environment and thereby taps both social awareness and environmental prevention and action.

Similarities

The ocean cleanup is a non-profitable foundation as well as Plastic waste. Therefore, any profit made is put into improving the company and investments into the foundation. This is done through selling products made out of recycled plastic collected by the companies to customers. Aside from this, both companies are also set on spreading awareness through their projects and goals. Thereby gathering a larger community is a great achievement.

Differences

The ocean cleanup is rather more broad focused on rivers and oceans on a larger scale than Plastic Whale. Plastic Whale is currently only focused on the canals in Amsterdam and the Old Harbor in Rotterdam. Therefore, a more non-contact relationship is built with the customers in comparison with Plastic Whale. At Plastic Whale, customers get hands-on experiences with the company and can take matters into their own hands.

Transferable parts

After analyzing four companies and their business models, namely the Ocean Clean-up, Great Bubble Barrier, Lush and Ecosia, the transferable parts can be defined. The three most important and promising ones are described in this paragraph.

Firstly, Plastic Whale can improve their business by collecting plastics more often, like The Great Bubble Barrier collects plastics all the time with their installations. As for now, plastics are only collected during two public events per year and the school programs. The company could consider hiring permanent staff to collect plastic, increasing their ecological value. This would also result in more material for creating new products. This leads to the second point of improvement; creating smaller products that cost less money, like the sunglasses that are sold by The Ocean Clean-Up. This allows more consumers to buy a product that is made from recycled plastics, increasing the awareness of people on plastic pollution, and can also be a way of advertisement when handing out a small gadget with the logo during events. Lastly, Plastic Whale is now a rather small business that mainly focuses on Amsterdam. Expanding their business to other places would increase their value proposition, like The Ocean Clean-Up.

From the discussed options above, the first and second ones are the most easily transferable. The third option on the other hand will take more time, but remains a good improvement for the organization.

Related companies

Another way to identify possible improvements to the current business model of Plastic Whale is to look at the business models of companies which followed similar developments. In contrast to the competitors, these two companies do not operate in the sector of Plastic Whale, but there are notable similarities in their development as well as their business models which can provide useful information.

Ecosia

Ecosia is a search engine founded on the 7th December 2009. It donates 80% of its profits to non-profit organizations that focus on reforestation (Ecosia, 2019a), like WeForest. It considers itself a social business, CO2 negative (Ecosia, 2019b) and claims to support full financial transparency (Web Archive 2017). Furthermore, it also possesses the B Lab certified (Snopes, 2019). Certified B Corporations are businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose. Ecosia is available on Google Chrome, Firefox, Safari, Microsoft Edge, and other browsers as a default search engine by downloading the extension from the Chrome web store or Mozilla's Addon site respectively (Addons Mozilla, 2010).

Its long term objective is to plant more than 1000 million trees around the world before the beginning of 2025. As of 12 March 2020, Ecosia will be included as a default search engine option for Google Chrome in 47 markets. This addition represents the first time a non-for-profit search engine will appear as a choice to users (TechCrunch, 2020b). Moreover, the user searches on Ecosia are powered by 100% renewable energy; they plant trees that fight climate change by removing CO2 from the atmosphere, and they accelerate the energy transition away from fossil fuels by adding solar energy to the electricity grid (Ecosia Blog, 2020). Last but not least, it is important to state that Ecosia does not accept donations; in case you cannot help them by making them as your preferred search engine, you can also contribute by buying items on their online website.

Osterwalder Canvas

The value proposition that Ecosia offers to its customers is a search engine whose benefits are given to reforestation programs around the world. Its social value is based on providing economic capital to non-profit organizations, which provides jobs to the locals. These projects are carried out in

undeveloped countries and developing countries, bridging their differences with the first world. Furthermore, Ecosia committed to becoming a privacy-friendly search engine. Searches are encrypted and not stored permanently, and data is not sold to third-party advertisers. The company stated in its privacy policy that it does not create personal profiles based on search history, nor does it use external tracking tools like Google Analytics (Ecosia.org, n.d.). Regarding ecological value, it provides a solution for climate change and conservation of wildlife, increasing the area of rainforest; and the use of this search engine is 100% CO2 neutral.

The main innovation is the fact that search engines are normally traditional companies which make profit from the advertisements; but in this case, the profit is used for projects regarding climate change. The main customers are people that daily use search engines and are conscious and aware of the climate change problem. Customers are reached via advertisements and the company can be reached via their online website. Customer relationships are enhanced by great customer service support and social media.

Revenue streams and cost structure can be found on their monthly financial reports. Ecosia main sources of revenue are EcoLinks and EcoAds. For example, in the month of February 2020, Ecosia had a total income of €258,0715, from which around 58.8% was invested into tree planting, 15.1% for reserves for future projects; 4.6% for spreading the word (advertisements) and 21.6% for operational costs. Ecosia key partners are the local or international organizations that plant trees in countries where it is needed the most. For example, WeForest or Trees for the Future. An overview of the Osterwalder Canvas can be found in appendix 2.6

Business Model Connect

The general structure of the core business model of Ecosia can be visualized with the business model connect tool and can be found in appendix 2.7. The content of the value transfers include products, money, materials and reputation.

The business model follows an asymmetric multisided platform, although characteristics of a resale platform can also be seen. At its core, Ecosia receives technical support, search results and search ads of Microsoft Bing. From those searches, Ecosia receives revenue streams, of which 80% of the total is used to develop projects regarding wildlife conservation and reforestation; the other 20% is given for administration and operational costs. From the financed projects, they take a certain quantity of raw materials (cotton, silk, etc) to produce their own clothing brand. And finally, the user receives search results, sponsored links and Ecosia's clothing in exchange for search requests and money, respectively. Customers do not actually pay for the service offered by Ecosia; however, it makes profit every single time you click on a link in their search engine. Furthermore, the content that was used in the value transfers is basically money (between Ecosia and the project organizers), knowledge (between Ecosia and Microsoft Bing) and services (between Ecosia and the end-users).

Finally, we consider that Ecosia offers a sustainable value proposition from different perspectives. From an ecological point of view, they are helping the climate change cause and also for wildlife conservation. Moreover, the transfer of search requests and search links are 100% CO2 neutral as they are powered by the solar plans of Ecosia. From a social perspective, these projects are carried out in developing countries, improving their life conditions; and also for the user, as the search requests data are privacy-friendly, as they cannot be tracked. Due to these sustainable innovations, Ecosia was awarded with the B Lab certified.

Similarities

Both companies are non-profit organizations that try to fight for wildlife conservation and against pollution in our environment. Moreover, they are businesses founded around the same time, and they are in a position and situation where they have gained certain momentum, and they can no longer be considered as start-ups. Furthermore, we think that both should have a slight change in their respective business model to attract more customers to enhance their value proposition.

Differences

Ecosia sells products from its own brand while Plastic Whale gives the raw materials to Vepa, and then Vepa sells the furniture. Furthermore, Ecosia does not accept donations while Plastic Whale does. Plastic Whale offers an educational program to conscious people about pollution.

Moreover, Ecosia develops their projects in underdeveloped or developing countries, while Plastic Whale has spread mostly in Europe. And finally, Plastic Whale is more oriented into circularity and pollution whilst Ecosia is more aligned with climate change and economic and social development of developing countries.

Lush

The second company which will be analyzed is Lush, which sells various types of cosmetic products. Lush stands out amongst most cosmetic companies, as their products are handmade using vegan/vegetarian recipes. They are staunchly against animal cruelty, so none of their products and materials are tested on animals. Like Plastic Whale, sustainability is a core factor in the value proposition of Lush. Their primary goal is to provide animal cruelty-free, fresh cosmetic products. Lush is also very involved in activism, as they have participated in and sponsored various types of campaigns.

Osterwalder Canvas

The main value proposition of Lush focuses on both ecological and social value. All of Lush's products are handmade using vegetarian recipes (Lush, 2021). The resulting product is very sustainable, as Lush also does not add any chemicals which would increase the shelf life of the products (Lush, 2020). The products are themselves fresh and Lush ensures customers that no animal testing is involved in the production of the products (Lush, 2018). Lush also emphasizes it in its store experience, which provides additional social value to the consumer (Saltzman, 2017). Lush primarily sells its products directly to their customers. This is done either through their various stores which can be found in 44 countries (MBA Skool, 2020), as well as through their own website. This online presence is further bolstered by their focus on social media for marketing. In contrast to its competitors, Lush does not spend any money on traditional marketing and instead uses their considerable social media presence as well as their various campaigns to spread brand awareness (Casey, 2019).

Most of the key activities of the company relate to the production, distribution and sales of their cosmetic products. As has been mentioned, sustainability plays a big role in the production of their products. Lush's own environmental policy covers many sustainable aspects such as waste, which is kept to a minimum by using as little packaging as possible (Lush, 2020). The main resources which Lush uses to secure its unique position in the market are its brand and the accompanying cosmetic recipes as well as its various stores. Innovation also plays a big role in the company, as it is constantly experimenting with new recipes and methods to enhance the overall experience. Its key partners include the various suppliers of the materials and ingredients necessary to produce the cosmetic products as well as the distributor of the product.

The main revenue stream of the company comes from the sale of their products. Fixed costs include general administration costs as well as costs associated with operating their various stores. The variable costs consist mostly of the material costs of the products as well as employee salary. The company itself is privately owned, with some shareholders on an invitation only basis. The current CEO of the company is one of its founders, Mark Constantine. The Osterwalder Canvas can be found in appendix 2.8

Business Model Connect

The general structure of the core business model of Lush is visualized with the Business Model Connect tool and can be seen in appendix 2.9. The business model follows a make-sell structure, although elements of an asymmetric multisided platform are also present. At its core, Lush buys materials from a supplier which it turns into its products. These products are then sold to consumers. Lush also provides value to the community through donations and awareness campaigns. The products Lush sells have intentionally a short term durability since they do not add chemicals to increase the shelf life of the products. Customers pay on a price per product basis and own the products after purchase. The content of the value transfers include products, money, materials and reputation.

The business model of Lush is very sustainable, both in terms of environmental and social sustainability. Environmental sustainability plays an important role in many of Lush's value transfers. All the materials used in its recipes are cruelty-free and the recipes themselves are at least vegetarian. Lush has several policies regarding the environment such as limiting packaging waste and water usage by making solid products. They also provide social sustainability through donations to battle animal testing and various types of awareness campaigns using their considerable online presence.

Similarities

With both firms, sustainability lies at the core of the value propositions. Both firms show a heavy focus on sustainability in their value proposition and key activities. Both firms provide education towards the community. Plastic Whale actively aims to educate its customers through its activities and Lush is very active with its campaigns and general social media presence. The two companies both handle waste sustainably. Plastic Whale removes existing waste through its activities and Lush focuses on generating as little packaging waste as possible.

Differences

The two companies have different ways of selling products. Lush is more traditional, as it sells their products in their own stores while Plastic Whale offers experiences and sells their plastic to Vepa. The scale at which the two firms handle awareness and education differs. Plastic Whale focuses on local experiences with their education, while Lush's focus is bigger in scale. The size of the companies differs drastically. Plastic Whale is still relatively small, while Lush has many stores in different countries

Transferable parts

Now that the two related companies and their business models have been analyzed, the transferable parts of these businesses can be identified. Parts of the business models of Ecosia and Lush could be used to enhance the business model of Plastic Whale. These three parts will be described here.

One part of Ecosia's business model which can be promising for Plastic Whale is its focus on underdeveloped or developing countries. Plastic Whale is mostly operational in Europe as of now, but they could expand their operations to less developed countries. Especially educational efforts could prove to be incredibly useful for countries which are still developing. Another part which is present in both business models relates to the sale of their products. Both Ecosia and Lush sell their products in their own store, while Plastic Whale sells through Vepa. Making these products available directly from Plastic Whale's website could improve sales as Plastic Whale is the more recognizable brand. Lush Also puts a large emphasis on their social media presence as part of their business model, as they do not use any traditional marketing strategies. Plastic Whale can benefit from a similar strategy, as they already focus on events and other non-traditional ways of doing business. This would also help increase the scope of their education efforts.

Business model research

As a last part of opportunity spotting, literature on innovating business models is used to gain inspiration on options on how to create an innovation for the business model of Plastic Whale. In this paragraph, three innovative ideas are explained.

To begin, Bocken et al. (2014) explain the importance of collaboration between firms. Value is created by firms acting together, and therefore it is important that business models must take these collaborations into account. And because 90% of the business innovations are a combination of previously existing, successful businesses, Gassmann et al. created 55 patterns of business models that can serve as a base for forming a new business model. One of these patterns is the Open business model. In an open business model, the collaboration between organizations becomes the central source of value creation. Applying this structure to Plastic Whale could result in more collaborations with businesses similar to Vepa. This increases both their economical value and their reputation because they will be able to sell more products with their name on it.

Secondly, Taran et al. (2015) also focused their research on developing a list of business model configurations and categorizing these. Their result is a classification list of 61 business model configurations. One of the configurations that is useful for Plastic Whale is the Value chain service provider. This configuration put the emphasis on specializing in a specific part of the value chain. So Plastic Whale could, for example, put more money and time into their plastic fishing tours to improve their customer relationship. It would also increase their social value if more attention is spent to educating others.

Lastly, Plastic Whale may consider offering the fishing tours for free or for a lower price to their customers. This would attract more, so it implies a larger social impact, as more people are educated on the plastic pollution problem. But because this leads to lower revenues, premium versions of the tours can be sold for a higher price. This strategy is called Target the poor (Gassman et al., 2018).

Integration



First new business model

Into the first renewed business model, Plastic Whale will expand its plastic gathering efforts by hiring more employees who actively collect plastic. In this business model, Plastic Whale starts producing their own plastic products on their website using the increase in collected Plastics, while still selling the excess amounts to Vepa. The main value proposition stays the same, but the economic factor is enhanced. These changes would require significant changes to the current structure, which will be explained using business model mapping tools.

Osterwalder canvas

In this business model, Plastic Whale would keep its current value proposition as its main focus still lies around the ecological value of removing plastic. Its social value is also retained, as the plastic fishing tours as well as the educational campaigns would still occur. Its economic value would increase, as the company now offers products itself. The key activities undergo considerable changes, as overall plastic gathering would increase on top of the current fishing tours. Plastic Whale will also need to produce the new products which it aims to sell, which requires a significant change in its activities. Expanding Plastic Whale's activities to include production of products can be difficult and costly, so it will produce simple products which are easier to make. The key resources do not change, but the amount of required equipment and employees will increase. The key partners, which can be found in appendix 3.1 Largely stay the same, with the addition of distributors which are needed to transport their products. Vepa still remains an important partner, as all plastics which are not used in the production will still be sold to Vepa.

In this business model, the customer segments will also be extended. Plastic Whale now sells to general customers with its own products, on top of offering the fishing tours. Its customer channels will be enhanced by improving the overall look of the website, including the expansion of an online shop to sell the products. As a result of this increased focus on the website of Plastic Whale, it will also start selling products from Vepa through its webshop. Vepa will still produce the products independently, but they will sell them through Plastic Whale's online store. Plastic Whale engages much more with its customers through its customer relations and channels, so it is much more recognizable compared to Vepa. Selling Vepa's products as well as Plastic Whale's own products in one place has the opportunity to increase overall sales. Selling these products will become an additional revenue stream on top of the existing fishing tours. These new activities will also result in higher costs, as the cost of salary as well as the transport, equipment and storage will increase.

Business model connect

The visualization of this new business model using the business model connect tool does not change much compared to the old business model and can be found in appendix 3.2 The general structure follows aspects of a make-sell model with elements of a multi sided asymmetric platform. The most notable change is the inclusion of a new actor in the form of the customers who buy the products. These customers now buy all products through Plastic Whale's website. The remaining actors from the previous business are still present. The mechanisms used in the value creation are also expanded, as Plastic Whale now offers both short term experiences and long term products which the consumer owns. Customers still provide a one time payment for both services. The content of the various value transfers includes: Money, Materials, services and products.

The overall sustainability of this new business model comparable to the previous business model, as the core value proposition has not changed much. The business model still heavily features environmental and social sustainability through its gathering of plastics and educational activities.

The environmental sustainability increases due to the increase in plastic gathering efforts, but it also decreased as the new products Plastic Whale sells will also have to be transported. In short, both the value proposition and the activities as well as the value content are sustainable, while transferring said value is partly in an unsustainable manner.

Design elements

This new business model is made up of a number of transferable parts based on the analysis during the opportunity spotting. The first change was based on a common element in the business models of competing companies like The Great Bubble Barrier. This company constantly harvests plastics, while Plastic Whale only does this periodically during its fishing tours. Therefore, in order to stay competitive Plastic Whale increases the rate at which it harvests plastics in this new business model. Another element is common in both a competing company, Ocean Cleanup and a related company, Lush. Both of these companies sell products in their online store, while Plastic Whale only sells its plastics to Vepa. Plastic Whale can use the increase in plastic gathering to produce its own products. This would allow it to capture additional economic value while improving their online presence. The last change in this new business model, where Plastic Whale now also sells products from Vepa on their site was inspired by Lush. In their business model, Lush puts a big emphasis on their online presence. They are very active on social media, which brings attention to their online store. Plastic Whale has the opportunity to do the same, but it currently lacks an online store. This issue is partly solved in the new business model as Plastic Whale now produces and sells their own products. However, the efficiency of their store can improve if they also offer products from Vepa. With an increased social media presence, a consumer interested in these types of sustainable products is much more likely to recognize Plastic Whale than Vepa.

Ecosystem Pie Model

The EPM of this business model for Plastic Whale does not change substantially. However, the staff now will have different types of activities: organizing events and the educational program, as well as collecting plastic from the channels. Furthermore, the inability or unwillingness of volunteers to join the movement could increase due to the fact that now there are workers that get paid for doing the same job as the volunteers are supposed to do. Further explanation can be found on appendix 3.3.

Second new business model

Into the second business model, Plastic Whale expands their campaigns. The goal of this expansion also within the business model is to create a larger community. Because creating a larger community enlarges the awareness and increases funding. Focus in this renewed business model therefore lay within the communication to the customer and community.

Osterwalder canvas

By expanding campaigns to a larger scale more public is attracted and therefore the awareness increases. Also, by focusing on other countries more awareness is spread and an increase in funding. In the current business model the only channels used are the Plastic Whale website and social media platforms like Facebook and Instagram. (Plastic Whale, 2021a) These platforms are English language based and because of that also reachable by customers from outside the Netherlands. However, the company events are Netherlands based. By this, international customers and participants cannot practice their awareness within the company when wanted.

Methods to expand company campaigns consist of enlarging the campaign via social media by partnerships and real life campaigns during events, posters, banners, video ads and so on. In the department of customer segments, topics of children and aware people wanting to contribute are included. When expanding the campaigns onto a larger scale, a larger group of customers is targeted. Adding to this topic are international partners and customers wanting to contribute to a distance. By for example raising awareness through Plastic Whale in their own area and making financial contributions. Current activities of the companies take place in the canals of Amsterdam and in the old harbor in Rotterdam. By expanding the campaigns onto an international range, some events can also be organized in these.

All in all, expanding campaigns of Plastic Whale will enlarge the awareness of the topic and the company. And therefore the goals of the company are more and more fulfilled and more funding can be brought in. In Appendix 3.4 the newfound Osterwalder canvas with implemented changes can be found.

Business model connect

When implementing a larger campaign into the company business model, the community arises more. In the former business model connect the community consisted of the customers of Plastic Whale participating in collecting plastics and a reseller of plastics to create furniture named Vepa. By expanding campaigns internationally, a non-customer community is created. In this community more awareness and knowledge can be spread without participants being customers. This is advantageous for Plastic Whale because it creates opportunities to create partnerships and in the future set up events outside the Netherlands.

Creating a new segment for the upcoming community can be linked to the customers. Customers can transfer knowledge, awareness and can promote the community to take more action within. Being a part of this community therefore helps to gather knowledge but also experience within the field of climate change, environment and current policies and action. In exchange the company receives a platform to express, develop and promote their goals and events. In appendix 3.5, the transformed business model connect can be found.

Ecosystem Pie Model

The EPM doesn't differ significantly from the original Plastic Whale model. However, it is important to mention that the activities (events, presentation and the education program) of Plastic Whale and its staff members will be oriented in an international perspective. Furthermore, the riskiness of volunteers and sponsors would decrease due to the dimensionality of the program, as it would be easier to reach them due to the increased recognition. Further explanation can be found in Appendix 3.6

Design elements

Taking from the opportunity spotting, companies use platforms to gather awareness and funding. Plastic Whale makes great use of social media platforms. The company has not yet expanded their business onto a larger and more international scale. Taking from the other companies like the ocean cleanup, expanding the company does not necessarily mean expanding the company's location. By this, a campaign expansion is meant as a start up to continue further into the future.

Fit and Friction

These new business models will cause significant changes to Plastic Whale, but they will also affect how the company fits within the current socio technical regime. In order to investigate this aspect, the first new business model will be considered and its position within the regime will be analyzed. In this business model, Plastic Whale increases its plastic gathering efforts and now creates their own products out of plastics.

One general fit within the current regime is the commitment towards circularity. This business model promotes circularity by taking plastic waste and reintroducing it into the value chain as new products. This aspect is present in many parts of the regime such as the current technology which focuses on developing the circularity of the regime. Circularity is a complicated issue with many aspects and this business model provides a good example of how existing waste can be dealt with. Another fit within the existing regime is an element of the industrial networks, specifically the actor networks. The business model already makes use of numerous actor relationships in order to carry out its many activities, such as agreements between local municipalities like Amsterdam. These types of actor network make up an important element of the current regime. The general value proposition of this business model also fits well with the current culture in the regime. While plastics were often seen as cheap and disposable, people's increasing awareness of climate change has caused a shift in their perception of waste like plastic. The value proposition of this business model plays into this increase in awareness by focusing on the removal of plastic waste. This outlook towards plastic waste aligns it with the way the regime is starting to look at plastic.

One potential place of friction with this business model is the infrastructure of the current regime. Much of the current industry structure focuses on developing the recycling infrastructure in order to reduce plastic waste. However, the business model relies on gathering this plastic waste in order to produce the products. Without this plastic waste, the current business model can not function properly which causes friction, as the regime is currently aiming to eliminate this plastic pollution. This also causes friction with the current user practices of the regime, as much of the current plastic waste comes from the market's users. This is especially relevant for the current business model, as it operates in the Netherlands which already has a high recycling rate. This rate is only going to increase over the years. Another point of friction comes from the dimensions regarding policy. One of the main sources of plastic waste comes from single use plastics, yet the European Union will have banned ten types of common single use plastics. It is highly likely that these types of policy decisions will increase in the future as the regime continues to move towards circularity. This would limit the amount of plastic which can be gathered with the current business model strategy.

All these points of friction relate to one general development of the regime, namely the move away from plastic waste. Plastic Whale is itself a sustainable business which aims to combat plastic pollution, which means they support this general trend towards circularity within the regime. Because of this, stretch and transform is not a viable strategy to deal with this trend. They support the direction in which the regime is going, so it makes sense to follow a fit and conform strategy to solve these points of friction, in order to align themselves better with the regime. The element of the business model which will have to adapt includes the activities relating to the plastic gathering. In the short term, this adaptation is not yet necessary, as it will take some time for these changes to plastic pollution to make a noticeable difference. When this does happen in the medium to long term, Plastic Whale can adapt by moving its plastic gathering operations outside the Netherlands and eventually outside of Europe. Plastic pollution is a global issue and there are many countries, especially those which are still developing which could benefit a lot from The value proposition of this business model.

Internal production constraints

One possible constraint for the company relates to the first new business model. In this business model, Plastic Whale produces its own products from plastics. While Plastic Whale has access to the necessary materials, they lack the resources and skills involved with starting up production themselves as they are used to just selling the plastic to Vepa. Incorporating a new aspect like production into the key activities of a firm is complicated, as it requires knowledge on these processes. The overall size of the firm also increases, which increases costs associated with managing the company. In order to account for this, the new business model specifies that Plastic Whale focuses on the creation of small and simple products, while Vepa makes larger and more complicated ones. This will make moving towards this aspect of the new business model easier, as these products require less resources and skills to make. Plastic Whale can also look towards Vepa in order to get insight on the production of plastic products and the skills and resources involved. They are already partnered with Vepa, so they can use this to their advantage in order to move more successfully to this new business model.

A second constraint is relevant for both of the new business models and relates to the overall increase in activities for the firm. While both business models focus on different aspects, they require the firm to grow in size. As it was mentioned in the previous constraint, increasing a firm's size increases the required administration in order to keep things running smoothly. It also depends upon significant capital investments to fund this increase. On top of this, the company needs to find a way to efficiently navigate these developments. While this is certainly no easy task, Plastic Whale does have the benefit that their current company is still relatively small. This means most of the negative effects associated with transaction costs in economics, where the costs of expanding a business exponentially increases as a business grows larger, are not relevant yet. Plastic Whale can look at businesses like ocean cleanup which are much bigger in scale in order to get insight on operating a more complicated business model in this specific regime. It can also use its position as a sustainable company to get funding from the government to deal with the cost of expanding its business model.

Moreover, a second constraint for the 2nd new business model is regarding the market, as this campaign can have an important impact gathering many volunteers, but there might be a lack of demand of furniture products, due to the fact that these items are produced in Europe at the moment and shipping them to different countries in the world might cause them to be too expensive for the local communities, specially when thinking that the program wants to be expanded to developing countries.

Validation



An important part of creating a new business model is to check whether it actually works the way it is intended. Therefore, a validation is needed. A validation can be made in various forms. In this chapter, a few options are explained. Firstly, the possibilities for us to validate

the new business models are discussed after which three ways of validation by the company itself are described.

As the designers of the new business models, there are multiple ways for us to see whether these models would be successful or not. Firstly, we have to clearly establish which are our new goals with the innovation we want to apply to our business model, as well as to specify which will be the targeted audience and what differentiates our product from others. Furthermore, we have to assess the market size and share. By doing so, we can gauge our business's potential and justify its launch. After having done the previous two steps, interviews are a great way to gain insight in someone's experience with a company. So an interview with customers would be a good way to check if they would like to see any changes in their relationship with the company and if the proposed business model meets their needs. This could help Plastic Whale to see if they might need to change their educational program or the way the fishing tours are organized. Besides interviews with customers, other stakeholders make a good interviewee too. They have a lot to say about their relationship with the company and in which way they would like to see any changes. As a last option, a survey could be sent out to obtain information. This way of quantitative research can lead to new insights than interviews, which is a qualitative way of doing research.










Next to this, the company itself can carry out several experiments to validate the business models. Plastic Whale can conduct customer interviews too. Or they could do small pilots. As explained before, Plastic Whale could consider creating and selling smaller products to their customers to increase their reach and their revenues. But it might be good to begin small before producing a big amount of a certain product that might not be sold. A pilot is a good way to do this. To explore possible international partnerships, Plastic Whale could do online campaigns to explore their options. This would be a good first step of the expansion of the company.

Appendix

Appendix 1.1 – Plastic Whale's partners



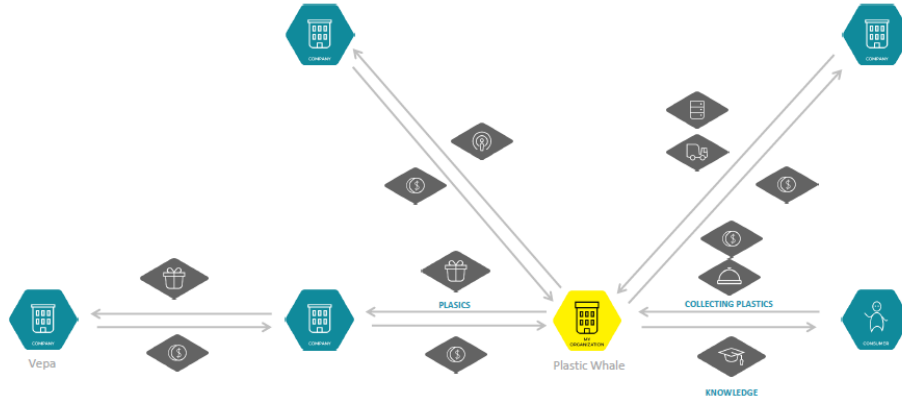
Appendix 1.2 – Osterwalder Canvas of Plastic Whale

<p>Key Partners </p> <ul style="list-style-type: none"> - Vepa - Gemeente Amsterdam - Ministerie Infrastructuur & Waterstaat - NS - Gemeente Rotterdam 	<p>Key Activities </p> <ul style="list-style-type: none"> - Plastic fishing tours 	<p>Value Proposition </p> <ul style="list-style-type: none"> - Social value: create awareness about plastic pollution, create jobs - Ecological value: less plastics in the waters - Economic value: money is earned with the fishing tours 	<p>Customer Relationships </p> <ul style="list-style-type: none"> - Transactional 	<p>Customer Segments </p> <ul style="list-style-type: none"> - People who want to help out with the plastic fishing (families, companies ..) - Children from group 7 & 8
<p>Key Resources </p> <ul style="list-style-type: none"> - Physical: equipment (fishing nets, boats), transport and storage - Human: skippers 		<p>Channels </p> <ul style="list-style-type: none"> - Website - Social media 		
<p>Cost Structure </p> <ul style="list-style-type: none"> - Transport and storage - Salary staff - Maintenance of equipment 		<p>Revenue Streams </p> <ul style="list-style-type: none"> - Plastic fishing tours 		

Appendix 1.3 – Business Model Connect of Plastic Whale

Value proposition

Plastic Whale offers their consumers plastic fishing tours during which plastic litter is collected and the participants are educated about plastic pollution. Therefore, Plastic Whale has an ecological and social value. They contribute to a better environment and social knowledge.



Business Model type(s):



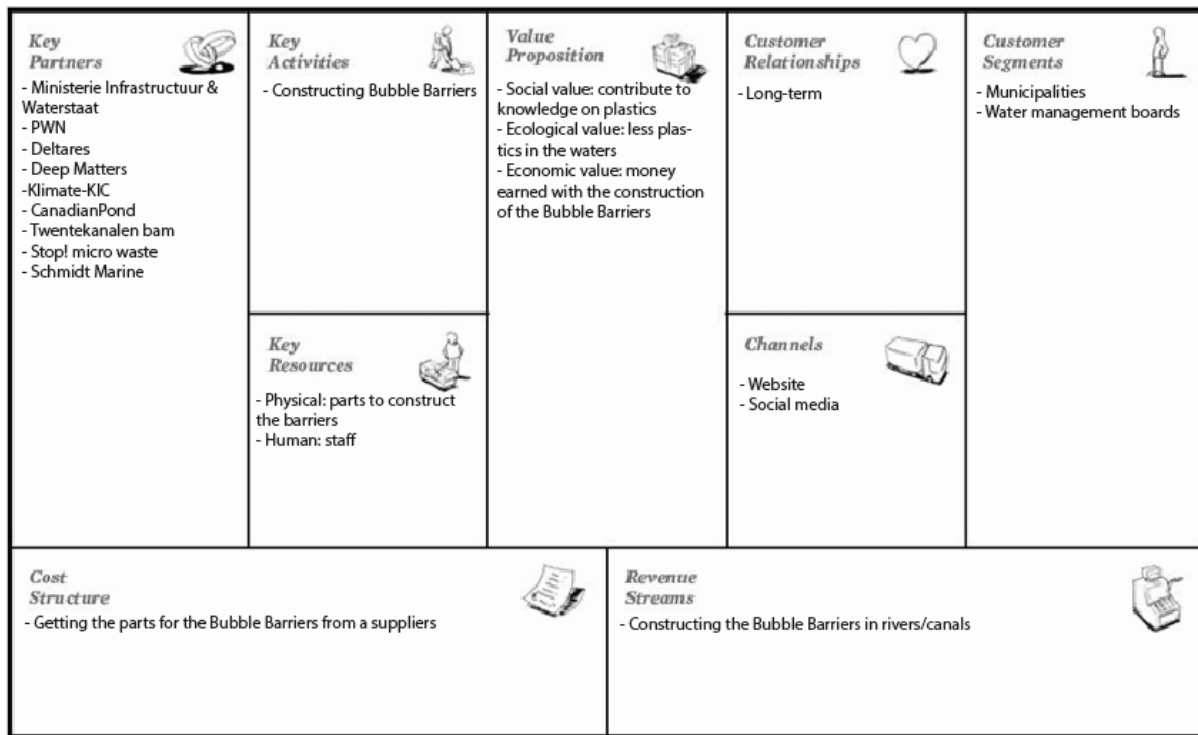
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Appendix 1.4 – Ecosystem Pie Model of Plastic Whale



Appendix 2.1 – Osterwalder Canvas of The Great Bubble Barrier

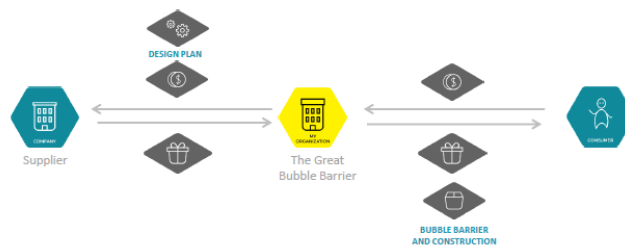


Appendix 2.2 Business Model Connect of The Great Bubble Barrier



Value proposition

The Great Bubble Barrier sells their Bubble Barriers to customers and assemble these for them. The components for this are bought from a supplier. The structure of the business model is a make-sell structure



Business Model type(s):



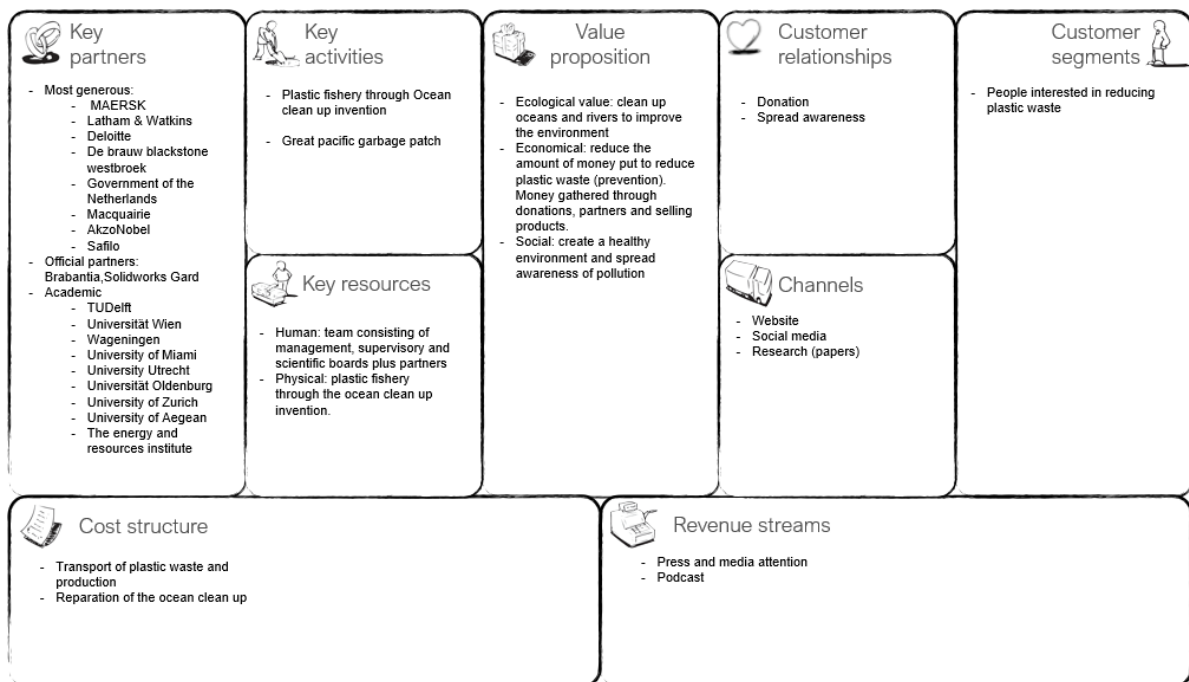
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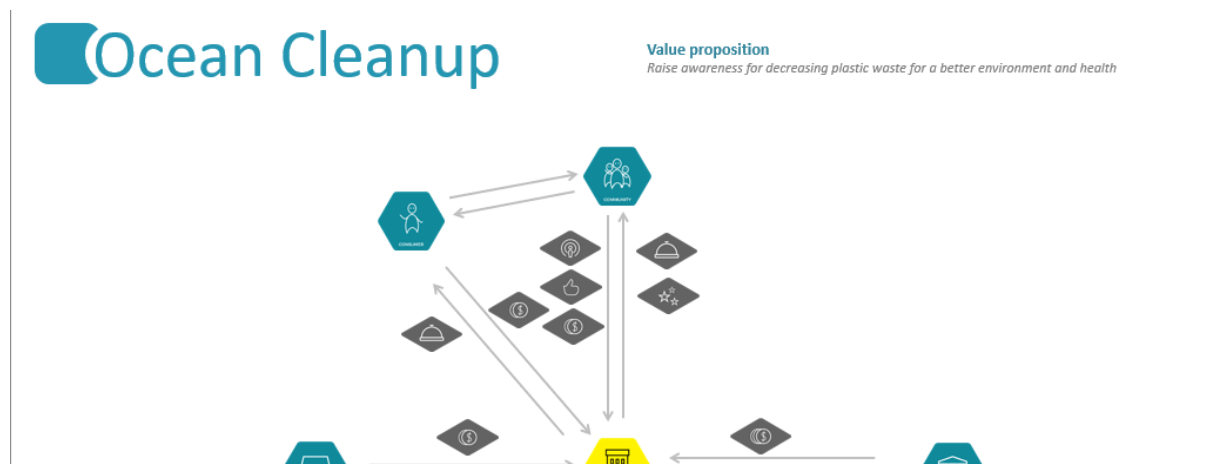
Appendix 2.3 – The Great Bubble Barrier’s partners



Appendix 2.4 – Osterwalder Canvas Ocean Clean-up

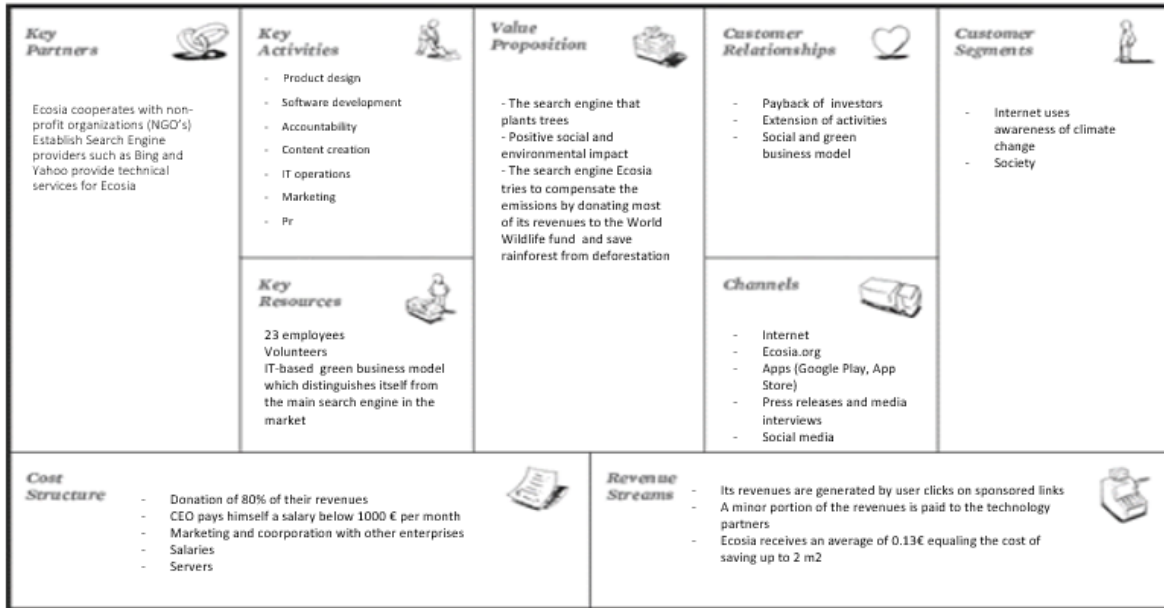


Appendix 2.5 – Business Model Connect of Ocean Clean-up

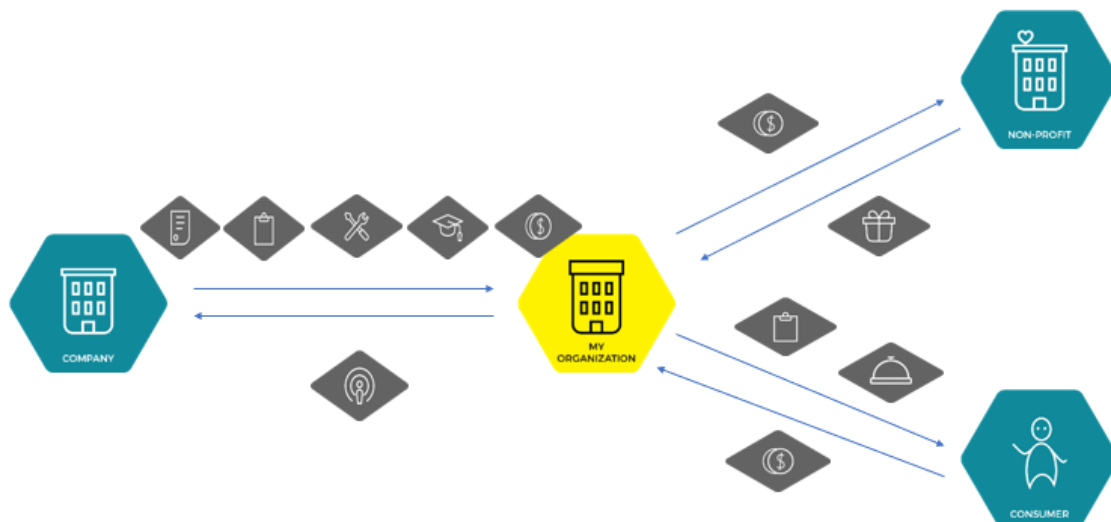


Appendix 2.6 – Osterwalder Canvas Ecosia

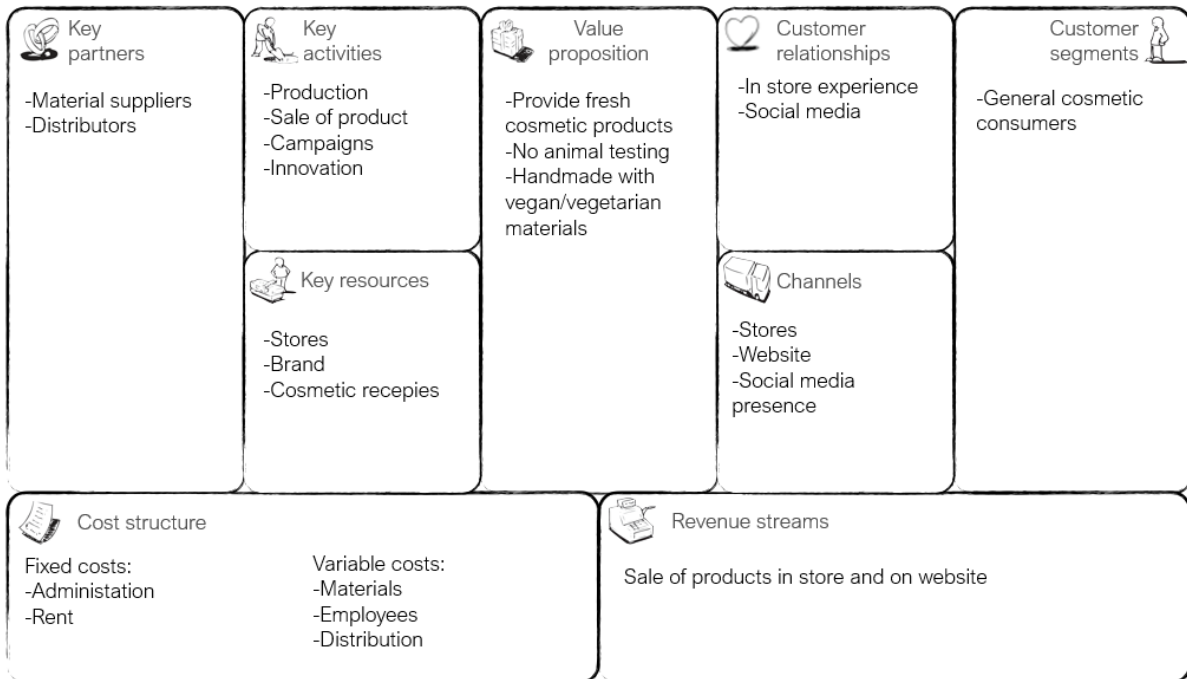
The Business Model Canvas



Appendix 2.7 – Business Model Connect Ecosia



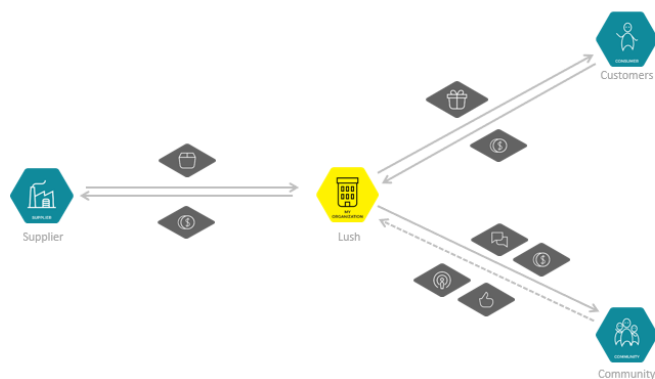
Appendix 2.8 – Osterwalder canvas Lush



Appendix 2.9 – Business Model Connect Lush



Value proposition
Fresh, handmade and cruelty free cosmetics.

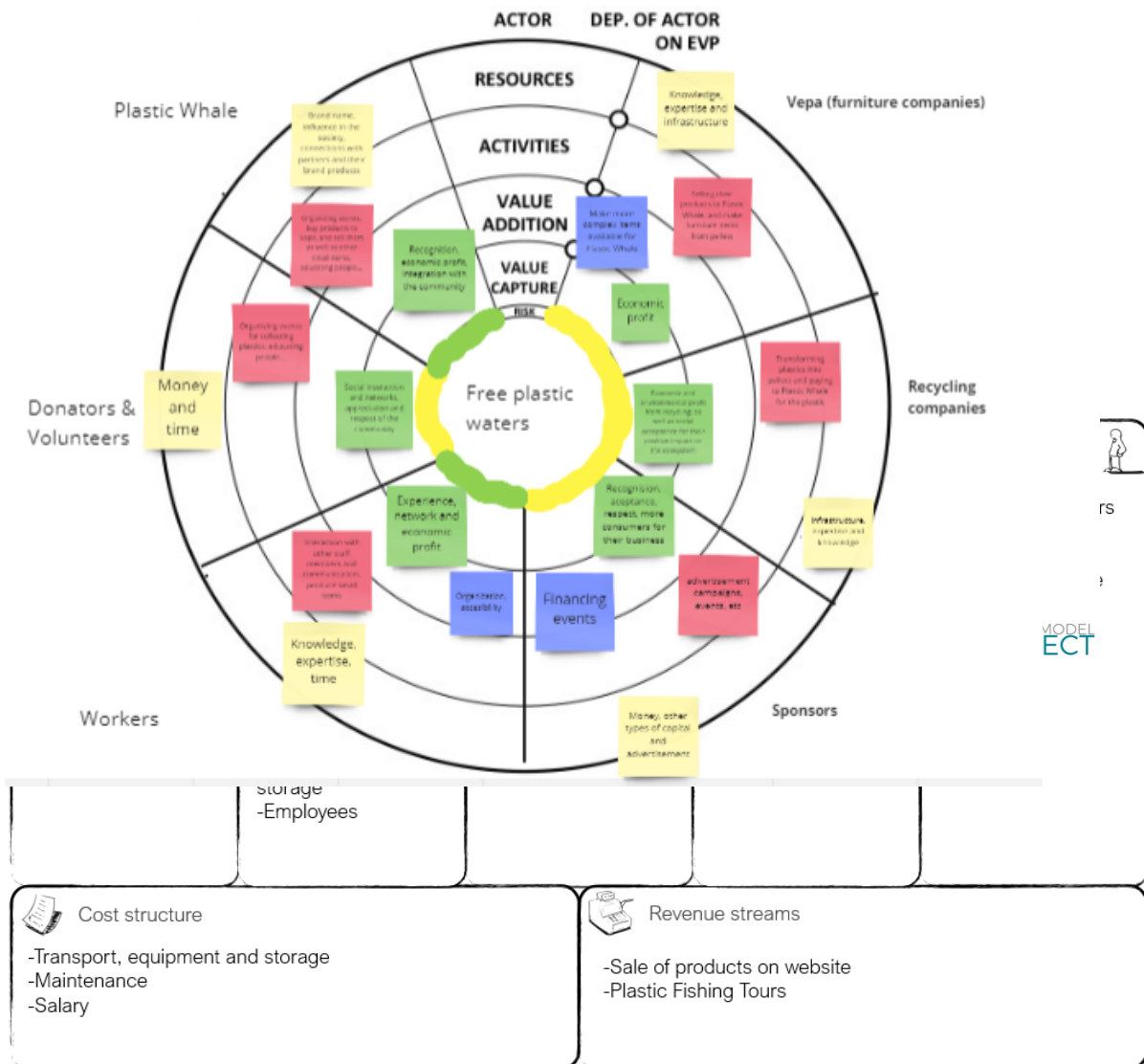


Appendix 3.1 – Osterwalder Canvas 1st new business model

Appendix 3.2 – Business Model Connect 1st new business model Plastic Whale

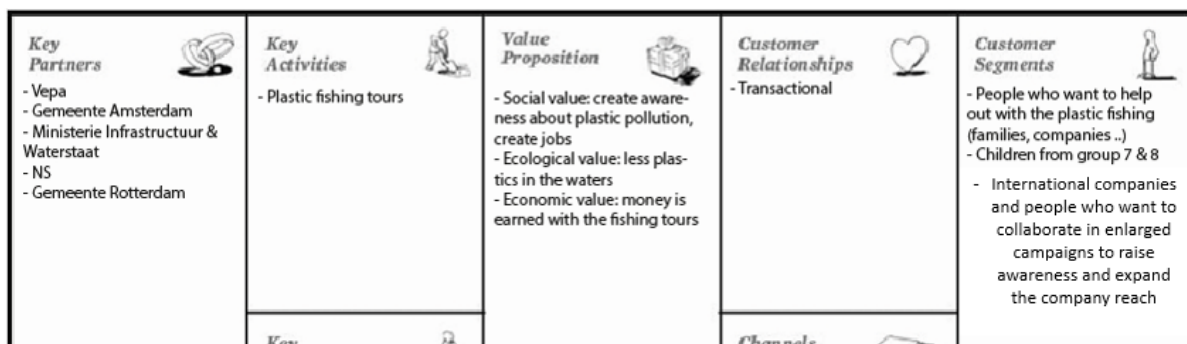


Value proposition
Gathers plastic and offers fishing tours to educate about plastic pollution. Sells products made from those plastics



Appendix 3.3 – Ecosystem Pie Model 1st New Business Model Plastic Whale

Appendix 3.4 – Osterwalder Canvas 2nd new business model Plastic Whale

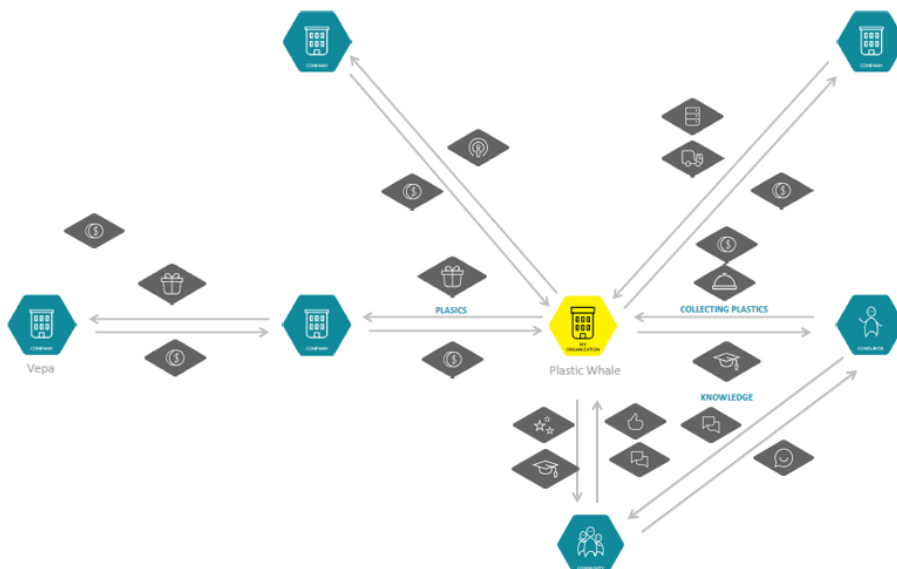


Appendix 3.5 – Business Model Connect 2nd new business model Plastic Whale

Appendix 3.6 – Ecosystem Pie Model 2nd business model of Plastic Whale



is collected has an ecological and social value. They contribute to a better environment and social knowledge.



Business Model type(s):



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