

## **Triple R Engineering**

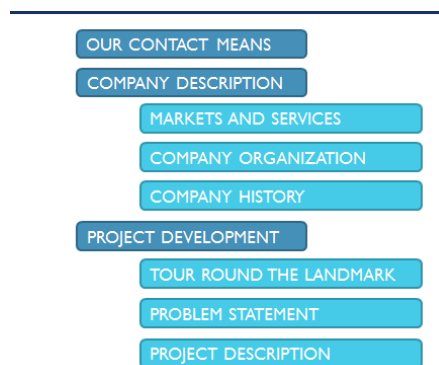
### **1. Introduction**

*Good morning. My name is Marco Miró and today I'm going to introduce myself and my partner Lautaro Tentor as enterprise owners. Both of us are 28 years old. We are from Paraná, Entre Ríos and we live here. Paraná is a small city located at the west side of Entre Ríos, connected to Santa Fe's capital with a tunnel. This province is at the northeast side of Argentina. It belongs to the Argentina's Mesopotamian region.*

*We both are electronics engineers. I hold a postgraduate degree in computing and my partner, Lautaro, holds a postgraduate degree in nanotechnology. As I said before, we are the owners of "Triple R engineering" a company destined to the manufacture of recycling machines and its maintenance basically.*

*The problem that we would like to face is the pollution problem. It is popularly known that in this city as in many other places in the word this is a very serious problem, and the Thompson beach is no exception. Most people nowadays prefer going to Villa Urquiza or Oro Verde for example (that are cities located near Paraná) instead of visiting a local place as for instance the Thompson beach. Our idea is to improve this place in order to make the families come back to visit and spend their family time in that beautiful place.*

### **COMPANY MAP:**



*This presentation is organized this way. First we are going to give you a detailed company description, dividing it in three different parts. Firstly we are going to talk about the markets and services that we are offering. Next, we will show you our company organization and in the last part we are going to talk about a little of our company history.*

*Secondly, we are going to tell you about our project development. It takes three parts as well. In first one we are going to give you a tour round the landmark, then we are going to state the problem that we want to face and finally, we are going to give you a project description.*

## 2. Company Description

### 2.1 Markets and Services/Products

*Now, let us start with markets and services.*

*This company is in the technology business, manufacturing different machines. Our factory is located in Paraná's industrial park. That's where we make the machines that we sell with the objective of helping people to recycle. If we can help them to do that in an easier and more interesting way, we will be helping the people, the environment and it will be better for all of us.*

*We are offering our products and services to the City Hall in particular and to enterprises which are concerned with the corporate social responsibility world. This is a great chance to link the name of your company with the recycling stuff. We are offering our products and services in Paraná at least for the moment. Then we are going to see the expansion possibility.*

*We are offering two different kind of recycling machines. One machine is an indoor machine that is capable of recycling a lot of plastic, cans, papers, to name a few. The particularity of this machine is that, before using it you have to transact a plastic card in order to make you gain points when you recycle. The idea is that you link your card with your DNI and, when you recycle for example a can or a plastic bottle in this machine, it gives you points in your card by introducing your DNI in the machine. This points will be exchangeable in the adhered shops.*

*The other machine is an outdoor machine that is pretty the same as the indoor machine, the main difference is that the indoor machine is connected with a wire and the outdoor machine is a waterproof machine that works with solar energy. The behavior of this machine is the same as the other but it has the particularity that you can put it wherever you want, for instance, on the Thompson beach.*

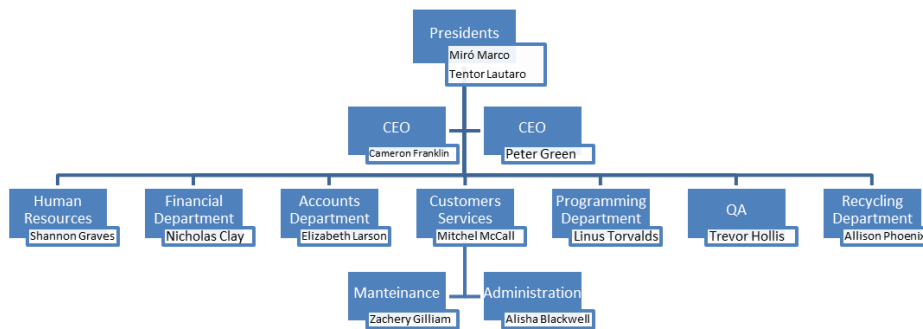


*This is a picture of the outdoor machine*



Here, in this picture, you can see an outdoor machine.

## 2.2 Company Organization



Now, we are going to tell you about our company organization.

**President:** Both of us, Mr. Marco Miró and Mr. Lautaro Tentor, are the company presidents. We are the head of the organization and our task is to exercise the legal representation of the company, lead and control the correct company performance, represent the company in every business and contracts with other companies. Also, we call and preside the Board of Directors reunions.

**CEO:** Mrs. Franklin and Mr. Green are the company CEOs. They are responsible for making decisions of the company strategies, inform about the objectives, management and achievements of the organization. They report to the presidents the current enterprise condition. They have to have some leadership functions, such as motivate and advise the employees that they have in charge.

**Human Resources:** Shannon Graves runs the Human Resources Department. This department is a very important one. Mrs. Graves is in charge of assuring the employees' rights like their payment, holidays, pension, etcetera. Her Job also consists on looking for people in order to work on this organization. This

recruitment task is important because the company's success depends in part on that.

**Financial Department:** *Nicholas Clay runs the Financial Department, which is responsible for managing the company's money. His function is to administrate the bank financial resources, as active and passive. Mr. Clay also advises the presidents in order to make some important decisions for the company.*

**Accounts Department:** *Elizabeth Larson is the head of the Accounts Department. This department is responsible for controlling the expenses and earnings, it also has the responsibility of controlling the Company's financial situation. Mrs. Larson's job is to know about the Enterprise payments and collections.*

**Customer Services:** *The head of this department is Mr. Mitchell McCall. This is the company department that relates with our customers. This department makes sure the client gets the product and that this product works well. We have two different departments that depend on this:*

**Maintenance:** *Zachery Gilliam is responsible for running the Maintenance Department. This department has to deal with the buyers that have problems with their machines. Once they corroborate the customer information, they can go wherever the machine is so as to fix it or find what the problem is. If we don't have a technician near the place, we send an expert to solve the problem. This department is very important because we manufacture machines and the clients have to know that if their machines don't work as expected, we will be there to sort out the problem.*

**Administration:** *The Administration Department is administrated by Alisha Blackwell. Administration is a department that keeps a permanent innovation and dynamism process. This allows the business adaptability, which helps with the correct resources management, in order to generate an extra value, quality and competitiveness.*

**Programming Department:** *This is a very important department in our business. Mr. Linus Torvalds is the head of this department. He and the other members of this department are responsible for programming the machines functions and helping the Maintenance Department in case the problem is an informatical issue. This department is important because without the functions inside the machines, they couldn't work as expected.*

**QA Department (Quality assurance):** *The QA department is in charge of controlling the production of our machines. The head of this department is Mr. Trevor Hollis and what he has to do is controlling that the production machines work as expected. The products that we manufacture have to follow some quality control, in order to offer a good commodity to our customers.*

**Recycling Department:** *The Recycling Department is led by Allison Phoenix. Her task is to collect the things that people put into the machines. Then, her job is to sell or donate the recycled materials to another enterprises or organizations. This job is done approximately two or three times a week, it depends on how often the machine is used. The department has to have a registration of how much each organization uses the machine in order to go to pick up the recycled materials only when it is necessary.*

## **2.3 Company History**

### **Time line**

*2010 Marco Miró founds Triple R Engineering.*

*2011 Mr. Lautaro Tentor joins the company.*

*2012 Triple R rents a bigger office.*

*2013 Triple R Engineering moves to Paraná*

*2014 Triple R achieves the highest sale in Argentina.*

*2016 Triple R expands its business.*

*2017 Triple R slightly increases its sales.*

*2018 The company moves to new premises.*

*2019 The company obtains sponsorship from FIFA.*

*Today Triple R Engineering leads the recycling business.*

### **A history about us.**

*At this point I'm going to tell you about our company history.*

*First of all Triple R Engineering was founded in 2010 by Marco Miró, an Electronics Engineering graduated from the National Technological University of Paraná. He started programming for companies and wanted to have his own company so he starts with the company in CABA. In 2011 Mr. Lautaro Tentor joined the company, he is also an electronics engineer graduated from the National Technological University of Paraná who programmed games and had the same need as his partner to have his own company.*

*In the summer of 2012 the company rented a bigger office for which they hired 6 employees. The company was growing more and more so in 2013 we moved to Paraná. In our new headquarters in Paraná we managed to improve many sales and this also a large part of the collections and recycling. This is why we began to have many orders for the product since many people were joining the cause, and thus in 2014 we were one of the companies that sold most in Argentina.*

*Thanks to the great sales obtained in 2014, we were able to expand in mid-2016, and this caused sales to rise even more for 2017.*

*In 2018, thanks to the large increase in sales, we were able to break borders and set up new stores in different countries, which caused large companies to want to sponsor us, thus one of the companies that have patronized us since 2019 is the FIFA brand, one of the brands that move the world. Today thanks to all the sales and the hard work that each employee exerts Triple R Engineering leads the recycling business.*

### **3. Project Development**

#### **3.1. Tour round the landmark**



*Now, let me give you a little tour around the Thompson beach. It covers the northeast area of Paraná. You can see in this picture at the background some buildings. In the middle of the picture we can see the Paraná River, which is the second largest river in South America just after Amazonas River. There is an umbrella at the foreground, there are many trees in the background and we can see a person rowing in the river.*



*This is a picture of the Paraná River sunset, in which we can see two boats in the river. This is a perfect way to see how wonderful can the Thompson complex be especially at this time of the day. If we are talking about the night, you can have fun too. This is a place where you can find music, restaurants and different parties. If you want to just go and relax you will have a great time too, looking at the moon reflection on the river and taking a little of the calm that it can give you.*

### **3.2 Problem statement**

#### **3.2.1 Descriptions of the scenes that help picture the problem:**



*I am going to move to the other side of the landmark. In this picture you can see the ugly side of the story. At the foreground you can see the buildings of Paraná city. In this picture you can see that there is a lot of pollution on the sand and, if we don't do anything about that, it will bring serious problems to the ecosystem. In this pictures there are a lot of plastic bottles and other waste on the ground. Between Paraná and Santa Fe there is an island in the river. There is where people usually go fishing. If the fish eat just a little of that trash, they will be*

*intoxicated and that can cause health problems to the people who eat them, so it is a very dangerous problem too.*



*In the picture above we can see a picture of all the garbage that ends up into the river as a result of the trash that is thrown on the Thompson Beach. Although people complain about this situation, no one does anything to change it.*

### **3.2.2 Analysis of the factors that give rise to the problem**

*These are the factor that may cause all the garbage around the area. One of the main reasons is that people are lazy, so in order not to walk a few meters to throw the trash in a bin, they do it wherever they are, on the beach, in the river, on the streets, etcetera.*

*Another problem that we have in Paraná , especially on the Thompson Beach , is that there are a lot of street dogs, and they are the responsible for breaking the garbage bags. And this is a problem because as we saw before, this garbage may finish into the river or on the beach.*

*We think that if people have interest to recycling they will do it and we will be having less trash in the streets, beaches, river, and other public places.*

### **3.3Project description:**

#### **3.3.1 Stage I:**

*Now, let me talk about the specific work that we are conducting. We are carrying out our business in the Industrial Park of Paraná. In our factory we need to setup around ten big machines that are going to help us to manufacture our recycling machines.*

*We estimate that each machine will be ready approximately in 5 or 6 hours since the raw material arrives the factory until it is completely finished.*



*We need five different machines in order to create a production line. We have two different production lines: one of them for the inside machine and another one for the outside machine.*

*The first machine is in charge of the iron modeling, it design the different iron parts of the machine and following its own instructions it cuts the iron. The second machine transfers the iron plate to the third machine, in charge of joining the different iron parts.*

*Meanwhile, the second machine, the transporter one, waits next to it. Once the assembly is finished, the recycling machine skeleton is carried to the following machine.*

*This fourth machine is in charge of connecting all the different electronic components that the recycling machine has inside. It puts them into their places and weld them wherever they have to be at. If it is and inside machine, this will put a power source inside it and if it is an outside machine it will put a solar panel on top of it.*

*Once the internal job is already done, the transporter machine carries the recycling machine to the last one in the production line, it is the painter machine. As the name implies it has to paint the machine and plot it with the colour of our company. Then it continue the way in order to arrive at the place it will have to be, our customer place.*

### **3.3.2 Stage II:**

*It is not easy to end pollution, which is why we came up with the idea of starting with the collection of materials, because if we all collect and throw things where they should be, we'll do very well to our planet.*

*That is why for the collection we carry out a series of steps so that our company is one of the best on this world and also we'll do a better future for our earth:*

- 1) The first step is the City Hall's call. When they come to us, we have to explain exactly how will be the process since the production of the machine up to its installation.*
- 2) When they agree, our Programming Department begins to prepare all the logic circuit behind the machine, that is the machine has to be capable of separating the different kind of waste that the client informs to us. Once this is ready, the process of making the machine starts as we mentioned before in Stage I.*
- 3) Depending on the amount of machines the City Hall asks for, we schedule the date of delivery with them. We estimate 5 to 6 hours per machine, so if only we are asked for only one or two, the machines will be delivered to the Thompson beach the same day, if not we keep in touch in order to set another date of delivery.*
- 4) Once the machines are manufactured, it is time to the QA Department. They have to be sure that the machines work as expected. To make sure of that they submit the machine to different testing.*
- 5) When the machines are completely ready, the Administration Department calls the transport so as to carry the machines wherever the city hall decides to put them, after a landmark evaluation. Our Maintenance Department goes to the place in order to explain them how the machine*

works and what they have to do in order to keep it working. If it is an inside machine is not a big deal because it only has to be plugged in, but if it is an outside machine, they have to analyze where is the best place to put on the machine in order to get the enough solar energy.

- 6) After the machine is installed, we explain how the points system works. The machine, as we mentioned before, detects what kind of material you are putting into it and its size. Depending on that it will give you different points on your target. It will give you 10 point for a small bottle of plastic, 15 point for a large one, 10 point for a can, 5 points for a plastic bag, 10 points plastic trays and cups and 5 points for each plastic top. When a person gets the enough points to earn a prize, he or she has to go to the adhered stores in order to claim their prizes.
- 7) Once the machine is full of trash, the City Hall has to call us in order to get there with the Maintenance Department and carry out all of the waste. After the machine is empty and clean, they return with the trash to the factory in order to continue with the process.
- 8) Once the employees in charge of the maintenance of the machine collect the materials, the Recycling Department is in charge of verifying that there are no crossed materials, that is, that they are not mixed.
- 9) At the end of the previous control they are in charge of donating the stuff to different places that they contacted before of this. We mainly donate the plastic to a company that we have an agreement, they use plastic to make different types of games for children such as rocking horses or plastic chairs and tables among other things.
- 10) Once the delivery of part of the materials is finished, if we do not donate, or sell everything, the City Council is responsible for removing the products that were left and taking them to the landfill.

### **3.3.3 Contingency plan:**

Here we are going to tell you about the different kind of problems that could arise when we are processing the machines. First of all, our machines works with sensors inside that, as we mentioned before, it has to identify what kind of material the person is putting into it as well as its size. If this sensor stops working or it gets broken, we will have to import a new one and this could be a complication because it could be difficult to find and if we find it, it will be quite expensive. The possible solution to this problem could be to buy a new sensor but of lower in quality, until we can find the sensor that we use normally.

Another problem that we may face is the machines decomposition. We face this problem with our Maintenance Department. They have to be capable of solving any kind of problem the machine may have because they are trained to do that. If the problem has to be with an informatical issue, our Programming Department will have to come and take a look to the machine in order to sort the problem out and continue with the process.

A sudden power outage is another problem that we could have. So as to sort this out we have bunch of generators that guarantee the electric power for the plant in a range of 2 to 3 hours. This time should be enough to the energy to return.

*In case of which a machine needs to be repaired and it needs an imported part and this part is not available outside the country, we will have to look for a national industry replacement. It is lower in quality but, until we can manage to get the imported one, it is going to work.*

*One of the problems that can arise is in the event that there is a storm or it is cloudy for several days, since our outdoor machine works with solar panels and if it runs out of power, the operating system can be damaged. For this reason, if this problem occurs, the machine automatically has a UPS generator that prevents it from turning off suddenly and prepares it for a quick shutdown.*

#### **4.0 Conclusion:**

*As we have mentioned throughout the presentation, our company tries to improve the environment by stopping pollution, this in addition to doing good to the world, does good to each of us since we take on different responsibilities and one of them is to take care of our future. Because there are not so many companies that are in charge of the collection in our city, we believe that the government can accept us quite easily since we are a company that seeks quality and charity. We are not a company that is based only on our own profits but we just want to take care of the world and thus we all win.*