



## Market Expansion Challenge

Team number: 69

Client company name: Plastic Revolutions

<b>Authors:</b>	<b>Countries:</b>	<b>Emails</b>
-----------------	-------------------	---------------

Jasmine Ortega	USA	<a href="mailto:jasmine.ortega@washburn.edu">jasmine.ortega@washburn.edu</a>
----------------	-----	--

Tasks: Threats for the SWOT analysis, economic environment, market size, number of potential customers and their characteristics, form of entry evaluation, and recommended sales strategies. In addition to writing the above sections, I reviewed and rewrote sections 3 and 4, was the team leader for section 4, and helped with the final check of the report before submission.

Philippe Fiks Brukirer Fajer	Brazil	<a href="mailto:philipe903@gmail.com">philipe903@gmail.com</a>
------------------------------	--------	--

Tasks: The geography & demographics criteria, the trade and labor laws, pricing, and trade regulation sections.

Juan Pablo Perez Calderon	Colombia	<a href="mailto:jperezc2@eafit.edu.com">jperezc2@eafit.edu.com</a>
---------------------------	----------	--

Tasks: Risks of transportation, allocation of marketing budget, analysis of legal and political environment, and did all but the threats for the SWOT analysis. In addition, was also a team leader for a week.

Andres Felipe Garcia Diaz	Colombia	<a href="mailto:andresfelipe.garcia@urosario.edu.com">andresfelipe.garcia@urosario.edu.com</a>
---------------------------	----------	--

Tasks: Main competitors, competitive environment, analysis of Market of Mexico, optimal transportation and help with APA style and form of document

Jenny Marcela Higueta Beltran	Colombia	<a href="mailto:jennym.higuitab@konradlorenz.edu.com">jennym.higuitab@konradlorenz.edu.com</a>
-------------------------------	----------	--

Tasks: Cultural environment of the market success criteria, main competitors and their strengths and weaknesses, discussed if the product name, packaging or features should be modified and traditions of the consumers in the new market.

Martijn van der Kamp	Netherlands	<a href="mailto:M.R.van.der.Kamp@student.rug.nl">M.R.van.der.Kamp@student.rug.nl</a>
----------------------	-------------	--

Tasks: Main customers, Market selection and Analysis, analysis of the market in Germany, Comparison of the selected countries, optimal transportation, intermediaries, (current) prices, structuring the report. I reviewed and rewrote section 1 and 2 + final check. I was also the team leader during section 1, 2, 6 and 7. Try to assist the team leaders in week 3, 4 and 5.

Date: 14 October 2016

**Table of contents**

<b>Executive summary</b> .....	2
<b>1. Company competitive position analysis</b> .....	3
1.1 Company description.....	3
1.2 Main customers.....	3
1.3 Main competitors.....	4
1.4 SWOT-analysis.....	4
<b>2. Market success criteria</b> .....	5
2.1 Geography and demographics.....	5
2.2 Economic environment.....	6
2.3 Political and legal environment.....	7
2.4 Cultural environment.....	7
2.5 Competitive environment.....	8
<b>3. Market selection and analysis</b> .....	8
3.1 Analysis of the market in Mexico.....	9
3.2 Analysis of the market in Germany.....	10
3.3 Comparison between the selected countries.....	11
3.4 Market size.....	12
3.5 Potential customers and their characteristics.....	13
3.6 Main competitors and their strengths and weaknesses.....	15
3.7 Cultural environment.....	16
3.8 Legal and political environment.....	17
3.9 Economic environment.....	18
3.10 Trade and labor laws.....	19
<b>4. Logistics</b> .....	20
4.1 Available transportation options.....	20
4.2 Optimal transportation option.....	21
4.3 Transportation costs.....	22
4.4 Relevant trade regulations.....	23
4.5 Intermediaries.....	24
4.6 Risks.....	25
<b>5. Pricing</b> .....	26
5.1 Current prices.....	27
5.2 Price strategy.....	30
5.3 Sales strategy.....	31
<b>6. Promotion and marketing</b> .....	32
6.1 Advertisement and promotion.....	32
6.2 Allocation of the marketing budget.....	35
<b>7. References</b> .....	36

## Executive summary

The following document is a detailed expansion plan for Plastic Revolutions Inc. resulting from an in depth analysis of the company, market success criteria, market selection. With relation to logistics, pricing, promotion, and marketing strategy for the chosen market. The first part of our work was an analysis of the company itself. This showed interesting information such as a wide scope of customers, low pricing, ISO certification, large supply of raw material and the capacity to export PRI's product worldwide.

Armed with this and so many other facts and figures, we drew our attention to possible market success criteria. After due diligence, the criteria was established. Some criteria include: markets with high plastic regulations, high educational levels, high levels of income, high levels of employment, and economic integration with the origin country.

With this in hand, two prospective markets were chosen: Mexico and Germany. Scrutinizing their geography, demographics, economic environment, trade regulations, political environment, legal environment, cultural environment, and competitive environment we opted for selecting Germany. The Teutonic country showed promising aspects in general from their favorable trade treaties with US, their large consumption, their economic vitality, and their thorough environmental support to their high levels of human development.

With Germany set in mind, we strategized for PRI's entrance into this market. Some of elements of this plan was understanding how the HDPE market worked, knowing they provide to their customers, and is also a semi-commodity. This meant pricing would be established by the market and our promotion would be extremely specific.

In the logistics field, truck transportation through strategic alliances weighed out as the most economical and effective option. Hence the grand plan was established and is as follows.

## 1. Company competitive position analysis

### 1.1. Company description

Plastic Revolutions Inc. (PRI) is a large plastic recycling company and centrally located in North Carolina, the United States. The company was founded in 1991 and is specialized in processing High Density Polyethylene (HDPE), but they provide also tolling and consulting services. Every year they spend around 12 million US dollars to purchase many forms and grades of scrap and consumer plastic. PRI is able to process 60.000 tons of plastic on a yearly basis, and their equipment recycles 100% of the process water. In 2008 they received the ISO 9001 registration which means that the products of PRI are from exceptional quality, compared to other companies it can be said that the quality of PRI is superior. Another strength is that they are certified by the US department, and they have a patent on their logo and the friction washer machine. There are locational advantages as tax-exempt, there are no property taxes on recycling equipment, land and buildings charged. PRI has excellent credit, and is able to expand their business to sustain their leading position in the plastic industry (Plastic Revolutions, 2016)

### 1.2 Main customers

The main types of customers are the companies who are processing a final product with the recycled plastic from plastic revolutions. According to the workforce of plastic revolutions, “our customers receive premium products”. However, plastic revolution don’t receive a premium price due the fact that the customers are price sensitive. The customers of plastic revolutions make different kinds of plastic products, the three most important customers/industries are:

- 1.** The automotive industry is an important customer for Plastic Revolutions. The automotive industry process under fender sound proofing for automobiles and kick boards for 53 ft. trailers.

2. The maritime/ marine industry process marine fingers piers and buoys with the recycled plastic from Plastic Revolutions.

3. The plastic & rubber manufacturing industry. Typical products for this industry are sewage / drainage pipes, plastic lumber, trash cans & dumpster lids. (Plastic Revolutions, 2016)

### 1.3 Main competitors

The main competitors of Plastic Revolutions in the USA are: Avangard Innovative (Texas), Emerald Pacific (Texas), PMC Biogenix (Tennessee) and Polychem USA (Massachusetts). (Avangard Innovative, 2016) (Emerald Pacific, 2016) (PMC Biogenix, 2016) (Polychem USA, 2016)

### 1.4 SWOT-analysis

The SWOT analysis, “which stands for strengths, weaknesses, opportunities and threats, is an analytical framework that can help your company face its greatest challenges and find its most promising new markets.” (Taylor, 2016).

<b>Strengths</b>	<b>Weakness</b>
<ul style="list-style-type: none"> <li>• Able to produce HDPE products (know-how)</li> <li>• Exceptional product quality</li> <li>• ISO 9001 registration</li> <li>• Excellent credibility</li> <li>• Logo and product patents</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent on the USA market</li> <li>• External communication</li> <li>• Lack of high-skilled managers</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Access to international / potential markets</li> <li>• Increasing awareness of sustainability worldwide</li> </ul>	<ul style="list-style-type: none"> <li>• (International) competition</li> <li>• Sensitive prices due small margins and dropping oil prices</li> <li>• Challenges in the plastic industry</li> </ul>

**Strengths:** Plastic Revolutions is one of the only two companies in the region that can process HDPE, they have the know-how. The products of Plastic Revolutions are from exceptional quality for which they received the ISO 9001 registration. Due their excellent credibility and patents they are able to expand their operations / to sustain their competitive position. (Plastic Revolutions, 2016)

**Weaknesses:** Plastic Revolutions is dependent on the USA market, they have to spread their risks to achieve a better competitive position. As stated in the Challenge Instruction, they have only one General Manager on who they rely, it would be good if PRI hires high-skilled workers to take the company to another level. The external communication can be improved, PRI need to adopt a more professional branding if they want to operate abroad. This will convince parties earlier to work together (Plastic Revolutions, 2016)

**Opportunities:** The plastic company is established in the United States, and “Statistics show that the United States is the largest consumer of molded plastic products.” (Larson, 2003) this means that there is a huge demand to supply and the plastic industry. PRI have to credibility to enter large markets as Europe or China. Also the increasing awareness of the need for sustainability worldwide is a change for PRI because recycling will be higher on the agenda of countries (PlasticsEurope, 2016).

**Threats:** The biggest threat is the international competition, especially companies from low labor costs countries. Because they are able to offer products for a lower price. Continuing drop of oil prices: Prices are falling again and will be a highly contributing factor a continuum of diminishing margins (The Week, 2016). Duplication of the business model: This business model can be duplicated at other strategic locations with a limited water supply to create unwanted competition. Challenges in recycling: Plastic is low density and low value can create more problems with major drawbacks from landfills as a sustainable resource for post-consumer products that continue to increase but are not used in recycling and instead contribute to the landfills (Plastics Revolution, 2016).

## 2. Market success criteria

### 2.1 Geography and demographics

The first key characteristic which is important for PRI is the ease of access and transportation. Since PRI is one of the leading recycling companies it is important to deliver fast and safe services, effective and easy accessible transportation will lower the freight costs, which plays a major part in the margins of a company.

The second key characteristics is the location, because it determines if PRI can profit from 'so called' locational advantages. Currently, PRI is tax-exempt and has most of their products going to the eastern coast of the United States with fluent infrastructure to transport the product by highways, state ports, and railways. With the location of PRI, it is in excellent (competitive) position to continue to expand as a company and start trading with other international companies (Plastic Revolutions, 2016)

## 2.2 Economic Environment

Prominent factors to be mindful of are trade regulations and local competitors. In order for PRI to continue to grow as an international company there are trade barriers they must comply with to do business and prevent potential violations. Based on the products PRI offers, it is important to keep in mind if trading with Europe to follow EU tax regulations, while at the same time be mindful how prominent Germany plays in being an exporter of rubber and plastics for many European countries (U.S. commercial service, 2015). Though companies in Germany would be fierce competitors, PRI can have a large benefit through integrated economic relationships due to the United States and EU having the largest bilateral trade relationship (European Commission, 2016). It would be the most beneficial for PRI if they continued to expand to countries with high plastic regulations and educational levels. Countries with high plastic regulations seems to correlate with countries with higher educational levels of the "green"

aspect. In order for PRI to earn a profit, there needs to be a stable enough environment with consistent incomes for their customers to continue to sell high volumes to consumers.

### 2.3 Political and Legal Environment

United States, a country that was seen 25 years ago as a destroyer of the environment with companies that were creating products with high percentage of chemicals, is now trying to change practices becoming friendlier with the environment and seeking to preserve it by implementing new environmental laws and mechanisms to fight against pollution and processes that can be harmful to the environment. With this, they also seek to reduce the manufacture and creation of new products, especially in the plastic industry. So the USA have implemented new laws and gives advantages to companies that recycles and that protects the natural environment trying to reduce this effect, trying to reduce the contamination issues, and to maintain the world “green” by protecting the environment. The government have created agencies, companies and norms that regulates this, one of it could be the Environmental Protection Agency (EPA), another one is National Environmental Policy Act. (US Environmental Protection Agency, 2016).

### 2.4 Cultural Environment

The worldwide concerns relating to the environment are growing, especially since societies are confronted with environmental issues as ground / air pollution. Problems as these create a worldwide awareness for the need of more sustainable products. The cultural values, tastes and preferences of people for environmental movements play here an important role. Because this determines till what extent environmentally friendly behavior become part of their lifestyle. As stated by Leonidas et al. (2010; p.1): “consumer becoming more ecologically conscious in the preferences and purchases of goods”. In other words, it means that the preferences of consumers plays a huge role in stimulating companies to use / produce recycled



materials. Which influences the design, packaging and marketing of plastic products (Leonidou et al., 2010).

## 2.5 Competitive environment

The consumption of plastic products is still growing. The increasing awareness for worldwide sustainable products is stimulated by new environmental policies (Plastics Europe, 2015). Which means that industry is constantly changing, so PRI have to be innovative to deal with these challenges. According to the American Chemistry council (2015) the competitive advantage of US companies is growing, especially the Plastic industry is ready for a revival. Because the competitiveness depends mainly on the difference between oil prices and natural gas prices. And these margins are more beneficial due the abundance of shale gas. They argued also that America will become one of the low-cost producers, which is an opportunity because PRI can increase their production / supply capacity. But at the other hand it also attracts new producers which can be dangerous for the competitive position of PRI (American Chemistry Council, 2015).

## 3. Market selection and Analysis

According to Worldwatch (2015) the average global production of plastic in 2014 is 311 million tons a year. The production and consumption of plastic products is still growing, especially since plastic products replace materials like glass and metal. However, the most concerning problem of plastic is the insufficiency of recovering and recycling of plastic. This causes negative effects across the worldwide environment.

The United Nations stated in their Environmental Program (2015) that between 22% and 43% of the plastic is wasted on a global scale by being disposed of in landfills where all it does it take up space and hurt communities. The large-scale consumers of plastic are the citizens of

Western Europe and North America because on average they consume 100kg plastic per person each year (Worldwatch, 2015). These are some analysis we felt were important in deciding to proceed in a market selection for PRI.

### Largest producers of plastic materials

According to Plastics Europe (2015), China is the largest producer of plastic materials with 26%, second is Europa with 20%, followed by America with 19%. Since 2006, when it comes to the production of plastic materials, there is a total decline of 3% in Europe and a decline of 4% in North America.

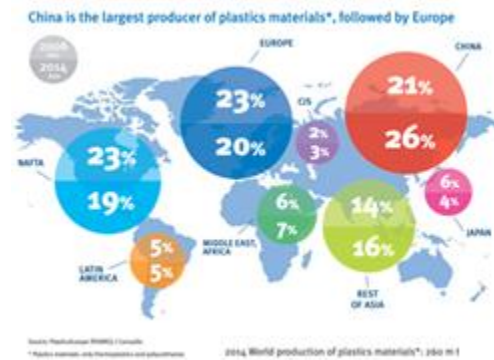


Figure 3.1 The producers of plastics materials by continent (Plastic Europe, 2015)

For Plastic Revolutions it is interesting to focus on the large-scale consumers because the waste of plastic in these countries are also very high. North America and Europe is therefore a chance for Plastic Revolutions because they can offer a solution to decline the environmental problems in these countries because they produce, by far, the most plastic products which will offer a lot of opportunity for PRI.

### 3.1 Analysis of the market in Mexico

Mexico has the fifteenth largest nominal GDP and the eleventh largest by purchasing power parity. GDP annual average growth for the period of 1995–2002 was 5.1%.<sup>[81]</sup> Mexico's Gross Domestic Product (GDP) in purchasing power parity (PPP) was estimated at US \$2.2602

trillion in 2015, and \$1.3673 trillion in nominal exchange rates. This information capitalizes on Mexico becoming a stronger and healthier economy through comparable costs that can help account for inflation for future companies in Mexico.

Mexico ranks as the 12<sup>th</sup> largest plastics consumer in the world. This would be beneficial for PRI to consider collaboration with Mexico's National Association of the Plastics Industry because the plastics industry has seen an average annual investment of more than \$1 billion dollars in the past ten years (Plastic Mexico, 2016). In addition, the plastics industry in Mexico are investing \$150 million in a pilot project to boost recycling in Mexico City. This would be a perfect chance for companies to use this opportunity as an investment.

### 3.2 Analysis of the market in Germany

According to figure 3.2, the demand for plastic in Europe is dominated and generated by five countries in total their demand is 63.9%. Germany has by far the largest demand (24.9%), followed by Italy (14.3%), France (9.6%), United Kingdom (7.7%) and Spain (7.4%). The total demand is 47.8 million ton.

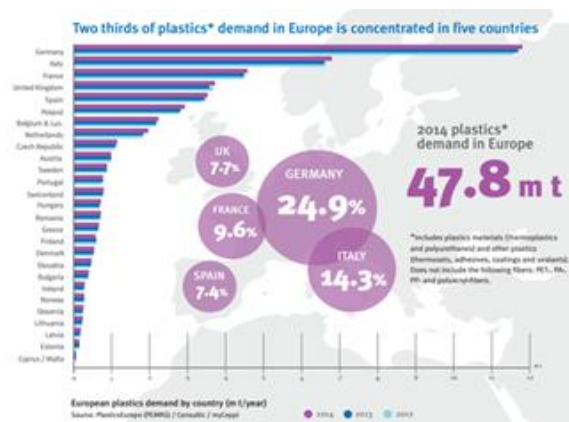


Figure 3.2 The demand for plastic in Europe (Plastic Europe, 2015)

Most of the plastic is used for the segments: packaging 39.5%, consumer and household appliances, furniture, sport and health and safety 22.7% and building & construction 20.1%.

The annual average of post-consumer plastics waste is 25.9 million ton. 8.0 million ton of the annual average still ends up on landfills, 10.2 million ton is used to generate energy, and 7.7 million ton is used for recycling or recovery. Since 2006, the recycling industry in Europe is grown with almost 64%. From this perspective the conclusion is that there is lots of potential for the recycling industry and thus for Plastic Revolutions.

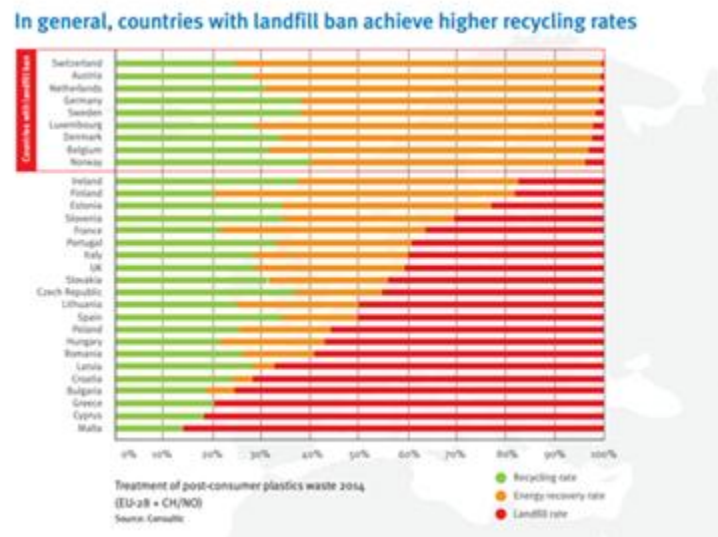


Figure 3.2 Recycling, energy recovery and landfill rate. (Plastic Europe, 2015)

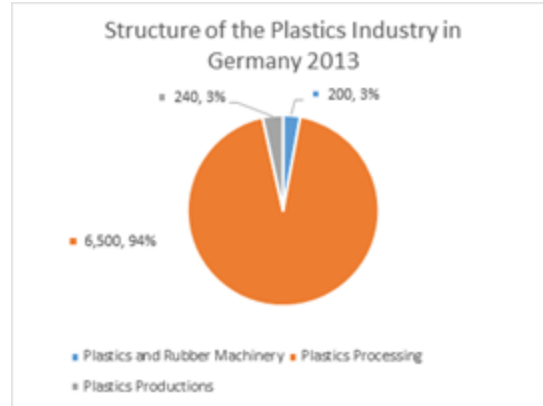
As presented in the chart above, the countries who have a landfill ban perform better when it comes to recycling rates. From the top five countries in Europe with the highest demand for plastic, only Germany has a landfill ban. Which means that it is not allowed to bring waste plastic to landfills and all the plastic need to be recycled or recovered. According to these statistics, Germany is one of the most sustainable countries in Europe. Germany is also an interesting country for Plastic Revolutions due their central and strategic location within Europe. It is easy accessible for other countries or clients due to Germany having excellent transportation opportunities. To capitalize on this, according to The World Bank (2016), Germany has the best infrastructure in the world.

### 3.3 Comparison between the selected Countries

Key characteristics	Mexico	Germany
<b>Geography and demographics</b>		
· Location	+	+
· Ease of access and transportation	+	+
<b>Economic environment</b>		
· Trade regulations	-	+
<b>Political and legal environment</b>		
· Political and legal systems	-	+
<b>Cultural environment</b>		
· Customer preferences and tastes	+	+
<b>Competitive environment</b>		
· How many competitors	+	-
· How established is the industry	-	+
<b>Total score</b>	<b>2</b>	<b>4</b>

### 3.4 Market Size

Since PRI is a well-established company that has the capacity to rapidly increase its production to grow into new markets, it is important to know the market size before a company decides to do business internationally. By evaluating the market size it helps the company get an estimate of the number of individuals in that market who could be potential buyers and customers for the company. According to Germany Trade and Invest (2015), the past 30 years international plastics production has grown by about 500 percent in the German economy. An influencing decision to choose Germany for our market selection was because the sales industry has generated more than 90 billion euros each year. The plastic industry in Germany is made up of about 7,000 companies in total which helps comprehend Germany being the leading market in Europe and accounting for about 25% of the demand in plastic (Germany Trade and Invest, 2015). The following chart helps to visualize the breakdown of the plastic companies in Germany and their major role in regards to plastic along with comparative percentages to all the plastic companies in the country.



With the dominance of plastic in the German market, they share some characteristics with current customers of PRI with the opportunities in construction and automobiles. For instance, construction is the second largest plastic end-user application that is used in pipes in Germany. The plastic industry in Germany predicts there will be a double digit growth in the next ten years with the plastic pipe industry (Germany Trade and Invest, 2015). This will be appealing to future customers as PRI currently produces plastic for different pipes in America.

PRI will also have a great opportunity in the automotive market in Germany. Currently, PRI supplies their plastic to customers for under fender and sound proofing for automobiles. This kind of supply would be great in Germany's market since the German automobile industry remains the country's most important domestic economic industry sector (Germany Trade and Invest, 2015). This presents a vital opportunity for PRI due to plastics having a role of being an innovator to be adaptive for new solutions in the automotive industry. With Germany providing promising opportunities requiring the supplies PRI currently provides for their customers and PRI's capacity to increase production there is promise in selecting Germany as a new market.

### 3.5 Potential Customers and their Characteristics

With Germany having a large market with almost 7,000 plastic companies, there is a great chance for numerous potential customers in this market. Plastic can be used for a large

variety of things in Germany such as: packaging, building and construction, electrical and electronics, automotive, and medical. However, to emphasize and build up the current customers PRI has, I will focus on providing information on potential customers and their characteristics in the automobile and construction industry.

Due to the strict regulations Germany has regarding the incineration of waste due to the lack of landfill area in the country, German automobile manufacturers are developing innovative ways to reduce automobile disposal. Having taking these measures seriously, this lead to the German Auto Recycling Law (GERMAUTO) proposal of requiring recycling of automobile parts. Some German auto manufacturers have made plans to recycle their models while others are redesigning models to use fewer materials (Germany Auto Recycling Law, n.d.). The German automobile industry shares a common characteristic of abiding to the deeply embedded pressure of recycling along with the need to have efficient products at a fast demand. This has stemmed from the problem Germany has with their landfills, creating an ample amount of customers for PRI to provide their products to in the automobile industry.

Based on the information provided to us, PRI provides recycled plastic to help in the construction business by manufacturing plastic products for sewage and drainage pipes, plastic lumber, trash cans, and dumpster lids. In Germany, the construction industry is a key factor in their infrastructure. PRI would have a large number of potential customers because the volume of commercial construction and public construction is predicted to increase. To help ensure construction continues to thrive in Germany, additional resources from *inter alia*, the municipal investment promotion fund, have been predicted to help this process by adding additional funds to help accommodate refugees. (DIW Berlin, 2015). The German construction industry makes a major contribution to generating value in their economy to help serve as an economic driver to

help generate prosperity. The construction companies in Germany have a common characteristic of providing reliable products to help ensure the safety and security of all construction outputs to continue to promote prosperity (Make it in Germany, n.d.). PRI would provide a solution since their reliable products are at a capacity to rapidly increase its production which will help keep up with the needed demand for German construction.

### 3.6 Main competitors and their strengths and weaknesses

The industry in Germany of recycling waste and recycling systems is very large. We know that this market is very competitive, so in this analysis we found two major companies that may be key to PRI's competition: Purus Plastics GmbH and Multiport GmbH and MultiPet GmbH. By analyzing these competitors' strengths and weaknesses it will help give an idea of the goal of the target audience of these local businesses and to see if there is an advantage PRI can obtain learning about the companies weaknesses.

#### **Multiport GmbH and MultiPet GmbH**

This company is located in the northwestern part of Germany based in Bad Oeynhausen. We believe this company can pose a threat to PRI due to the many strengths this company appears to have along with selling some of the same types of plastic recycling as PRI and then some. According to Multiport GmbH and MultiPet GmbH (2016), this company is one of the leading companies in the field of plastic and waste recycling in Germany with an emphasis on industrial affected markets through raw materials from PET bottles and canisters, bottles and drums of PE HD and PP, and packaging foils of PE LD. The company uses these raw materials from plastic waste to re-granulate and regrind to replace virgin material in the plastics industry for different applications (Multiport GmbH, MultiPet GmbH, 2016.) This company does have an advantage over PRI as it uses waste from one-way bottles and household collections are used in



recycling PET packages for MultiPet GmbH. With the large brand recognition, Multiport GmbH offers their products to the large majority of Europe.

On the other hand, this company has a weakness of limiting their recognition to only one continent. By only having focus in the European market, it can create an advantage for PRI because they may not be as familiar with international businesses targeting the same target audience as them. However, since Multiport GmbH and MultiPet GmbH chooses to only offer their services locally, it can be a hard bond for PRI to breaks and win over customers.

### **Purus Plastics GmbH**

This company is located in the southeastern part of Germany based in Arzberg. According to their website, they develop solutions for a greener world through recycling waste from: plastic waste from the processing industry, used package material of industrial waste, and waste packaging from household collections. Purus Plastics is able to keep customer loyalty through cost-effective products for their customers with high-quality plastic granules. This company has strong brand recognition across multiple countries of Europe and hoping to expand with their sustainability (Purus Plastics GmbH, 2016).

On the flip side of things, Purus Plastics does not necessarily keep up with innovative technology. While they only serve countries in Europe, they do not process their materials with high molecular weight HDPE. Without HDPE, the company's products are more susceptible to environmental stress of warping and cracking (ExxonMobil, 2015). While it would be more costly if PRI considered this option, it would give more room for appealing advertisement to win over future potential customers.

### **3.7 Cultural environment**

Germany is one of the countries with a lot of culture and respect for the environment with

consciousness citizens who pay attention to recycling. This year, 2016, Germany occupies the third place in the Top Ten countries with recycling rates with a 48% of waste product recycled. (TopLisTenz, 2016). Education plays a huge role to determine cultural levels in a country. The majority of studies concludes that countries with highest rate of education tend to have better lifestyle and less ignorance people concerning factors that harm the environment. Knowing this, Germany can be a suitable country because this country enters in the top ten most educated countries.

Germany has multiple ways to recycle multiple materials in their country. Four years ago, the government implemented an effective way of recycling by color coding four types of recyclable materials: paper, food, cans, and plastic. Recycle machines are also prominent because it provides an incentive by giving rewards and “money” to the people that contribute with that recycle system. For example, someone who takes a functional recyclable bottle and places it in that machine, the machine will give the person a reward depending the amount of plastic bottles he recycles. While this reward is not tangible money, it is gave in a bill form that is accepted in supermarkets where they can use the bill to buy things.

These facts show us that Germany can be considered a potential country to enter for PRI, without mentioning that people from Germany are too organized and we all know that recycling process needs organized and consciousness people.

### 3.8 Legal and political environment

The main objective of waste policy is to avoid waste and to recycle with a goal to protect natural resources. A goal to help influence people to be aware of the waste policy is to recycle or dispose all municipal solid waste in an environmentally friendly manner. In addition to technical, social, and political conditions putting this plan into action also requires legal choices.

The Federal Republic of Germany is a democratic, federal and social constitutional state. This country characterizes for being strong in politics and everyone who violate the law pays a very hard punishment. With PRI being a business, the punishment would constitute as being monetary because they are the most applicate to businesses. Although the German legal system work differently than American systems, it is still deemed fair by legal specialist as the country provides many safeguards to ensure the fairness and free competition. In Germany, the administration of justice is divided into five branches: ordinary, labor, administrative, social and financial courts with three higher tiers that can re-assess court decisions.

Germany has been making a great effort to make sure recycling is becoming more recognized in their political environment. The main waste disposal statute in Germany is known as the Waste Management Act, KrWG, which incorporates the main structural elements of the Kreislaufwirtschafts (KrW) and Abfallgesetz (AbfG). The KrWG is a very young statute as it is just over four years old, but has been very powerful and beneficial. It is intended to tighten resources, the climate, and environmental protection regulations under Article 1 of “Gesetz zur Neuordnung des Kreislaufwirtschafts and Abfallrechts” (Umwelt Bundesamt, 2014).

In addition to the KrWG, there are other laws that help regulate companies using natural resources by pushing towards implementing more recyclable methods. They are enforced if a company uses too many raw materials and fails to recycle properly. If companies are not following these statutes, they are forced to pay higher taxes along with extra charges. With this in mind, it is important for companies entering into the German market to be ecological and environmentally friendly. Based on this analysis, PRI can easily enter into the German market as we believe there will not be too many problems for them to work and operate there.

### 3.9 Economic environment

Germany has a law that addresses the economy as a sustainable waste called KrW/AbfG, which translates to the “recycling and waste economy.” With this law, companies and projects concerning recycling emerged. Germany’s stable economy provides a lot of guarantees to help create a smooth transition to a “green” economy Germany helps with creation of ecological laws, where they seek to protect the environment and creates ideas and mechanisms to implement a better and healthier world. With Germany being a highly influential country, it is possible for other countries in the European Union to follow suit with their environmental ideas. According to Eurostat, Germany is Europe’s top recycler and has already hit the 2030 target.

This country is facing the challenges of accelerated technological change since they are constantly implementing more technology to the country. At the same time, this makes the country interesting for foreign investment. Germany is the fourth-largest economy with a nominal GDP of 3.7 trillion. The inflation in 2016 is 0.8% with a GINI coefficient of 30.3 (2015) and has an unemployment rate of 5.0%. It’s a country with an open market, with huge exports and imports and a huge currency flow.

### 3.10 Trade and Labor Laws

PRI's current business model is the fabrication of a plastic resin that is considered a semi-commodity. The commercialization of this product to other industries which use the resin would be as a raw material. PRI's efforts to reach out to other countries would be seen as an exporting process so there is potential that it does not involve direct employees working abroad. Only companies that have differentiated products maintain employees abroad when dealing with exportation. This means that labor laws in other countries do not affect PRI's efforts. Also, being a semi-commodity company, price is crucial for success and for being involved with exportation

trade laws do have a direct effect on the company's efforts. These trade laws are the import tax, the custom fees, and if existent (most commonly not) a quantity limit of importation.

In regards to Germany the import duty rate for HDPE is 5,5 and the import VAT is 19%. According to the International Trade Administration (2016), countries that import goods outside of the EU are subjected to an import turnover tax, Einfuhrumsatzsteuer, which is equal to the VAT rates. However, the United States has an advantage compared to other countries as there is an average tariff of just 3%. Currently Germany is working on trade laws with the United States and Japan, so this could potentially decrease costs (Heritage Foundation, 2016). Lastly, it is important for PRI to keep in mind The Integrated Tariff of the Community (TARIC) because it has a list of rules that apply to specific products that are imported into the EU territory (International Trade Administration, 2016).

## 4. Logistics

### 4.1 Available Transportation Options

For PRI to become successful in distributing their products overseas as a multinational enterprise or as an international business, it is important to weigh the options on what form of entry should be taken. Organizing the company for a successful entry into a foreign market takes a lot of consideration on what would best suit the company's needs as well as the riskiness the business is willing to take. The form of entry that we believe would be the most beneficial for PRI to enter into a new market in Germany would be through a strategic alliance.

#### **Strategic Alliances**

Strategic Alliances is the option believed to be beneficial for PRI to consider as a form of a market entry to start incorporating their products in the German market. This would be the riskiness form of market entry, compared to exporting and cooperative contracts, but the reason

is because the benefits are greater if achieved. The strategic alliance would involve creating a new entity with a local market in Germany. By partnering up with a local entity it could have promising results for PRI because they would most likely have ownership for half of the new company made by combining PRI with the local company. By choosing this route for an option of market entry, it also has avoidance of tariff and nontariff barriers of entry. While this option would be more demanding from PRI than exporting or cooperative contracts, it does mean the benefit of PRI only bearing part of the risks of the new business. Another benefit to choose strategic alliance for PRI would be the access to supplementary services. It would be a necessity for PRI to remember their competencies when becoming the new entity as it would allow a company to offer potential clients a new level of services without losing their capabilities. By entering into a strategic alliance with a local company this would allow the benefit of PRI to connect with the locals on a more personal level that can lead to strong client relationships and build brand recognition faster.

#### 4.2 Optimal Transportation Option

Germany is a strategic location for companies to establish their operations because it is located in the center of Europe. According to the World Bank (2016); Germany has the best infrastructure in the world which has helped Germany to grow to a leading position in the chemicals and plastics industry (Germany Trade and Invest, 2016). The neighbors of Germany are Denmark, Poland, Czech Republic, Austria, Switzerland, France, Belgium, Luxembourg and the Netherlands. All countries are EU members and therefore easily accessible by truck, train, harbors or plane. The transportation time is lower due the open borders / markets within the EU.



Figure 4.2 Transportations options in Germany (Germany Trade and Invest, 2015)

Almost all European countries are located within 1.000 km (1<sup>st</sup> circle) or 2.000 km (2<sup>nd</sup> circle) radius. The harbors in the north of Germany give Plastic Revolutions access to Scandinavia, the western harbors give access to other European harbors and overseas markets. The German Hub helps Plastic Revolutions to serve their clients virtually in every location. In the table below there is a comparison made between the different options. This is based on the information of Germany Trade and Invest (2016).

In terms of:	Transportation options			
	By truck	By train	By plane	By boat
Distance	1000 km / 2000 km	1000 km / 2000 km	1000 km / 2000 km	1000 km / 2000 km
Time	< 12h / < 24h	> 15h / > 30h	> 1.5h / > 3h	< 48h / < 96h
Reliability	High	Above average	High	Above average
Costs per ton	1200 US dollars	1050 US dollars	2100 US dollars	900 US dollars

The best transportation option for Plastic Revolutions depends of course on the destination of the products. According to our analysis, in terms of costs, timing and reliability the best transportation option within Europe is by truck. Germany has excellent roads, and over short and medium distances the transport by truck is costs effective, fast and a reliable method. The other transportation options give direct access to long distance routes.

### 4.3 Transportation Costs

As mentioned in the previous sections, Germany's infrastructure is very well-known and evaluated as the second best worldwide with many that consider the transportation and

infrastructure to be attractive (EY, 2015). Considering the transportation costs is important in the budget as well as the supply and value chain.

Road transport is the most used for goods in Germany. Indeed, 268 million tons of goods are transported by sea every year in Germany compared to the 2,767 million tons transported by road. On motorways there is a prevailing rate since 1995 for commercial vehicles with an authorized more than 12 tons total weight. Rates are sorted by day, week, month or year, and to pay them a certificate that the driver must present is obtained.

The company that would do the road transportation will be DHL because this company give us a lot of benefits. Some of which include: online track and trace with event notification, flexible and cost efficient transport options for full and partial loads, state of the art IT, and direct contact with DHL freight experts (DHL, 2016).

After calculations, we have determined the cost of road transportation per ton would be 20 euros. Included in this price would be the fiscalized storage, transit fiscalized, and the cost to transfer to another customs agent. Fiscalized storage charges will apply from the third day after arrival of shipping or notification of the customer's' agent- whichever occurs later. The concept of transit fiscalized is applied to a shipment of imports and exports when DHL has to open, manage, or record any type of transfer of the goods while in transit while being supervised under warranty. Lastly, transfer to another customs agent includes documentations customers request when release is transferred to an agent independent from management.

#### 4.4 Relevant Trade Regulations

Doing any trade exportation to EU it is necessary to make an SAD, Single Administrative Document, which specifies the goods, taxes, and custom duties that will be sent to the EU. Also when importing to Germany it is necessary to make an invoice with the customer's following



information: address, the location, issue number, issue Number, types of packages, precise description of articles, the quantity in normal commercial units, invoice price, terms of delivery, and payment (International Trade Administration, n.d.). Another regulated registration that is necessary is an Economic Operator Registration and Identification (EORI) which is required for all business outside of the EU that wish to ask for a customs declaration. Despite of all of these complications there are also good things when doing trade with the EU, Mutual Recognition Arrangement, signed by the EU and USA guarantees, according to the US Government, "benefits including expedited processing of shipments, reduced theft/losses, reduced data requirements, lower inspection costs, and enhanced loyalty and recognition" (Export.gov, 2016).

#### 4.5 Intermediaries

For Plastic Revolutions it is important to find reliable intermediaries. If you enter a new market it can be difficult to find freight forwarders, other transportation services or distributors. Therefore it is good to know how the value chain of the plastic industry in Germany looks like.

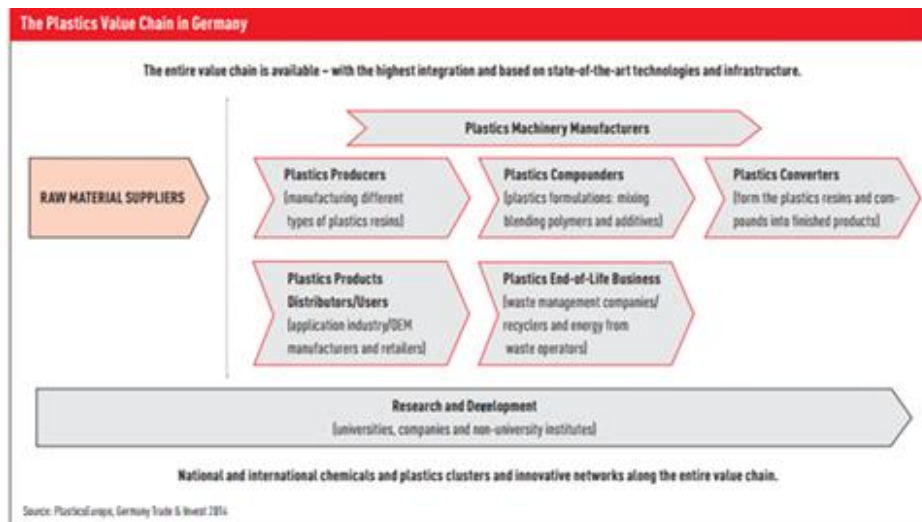


Figure 4.5 the value chain of the German plastic industry (Germany Trade & Invest, 2015)

In Germany there are so called 'specialized chemical parks', which means that all companies cluster together. In total there are 28 parks in Germany who are specialized in

manufacturing and recycling plastic products. According to Germany Trade & Invest (2015; p. 3): the Chemical Parks and sites concept allows investors to have access to the local partners and their infrastructure and resources they would require without the high costs of a greenfield investment.

Foreign companies such as Plastic Revolutions can enter the domestic, regional, or international market and still be able to use the cluster infrastructure and excellent R&D facilities. This is in line with our strategic recommendation; Plastic Revolutions should start a strategic alliance with a local partner. Das and Teng (2000; p. 33) investigated strategic alliances and define a strategic alliance as a: “voluntary cooperative inter-firm agreements aimed at achieving competitive advantage for partners.” This means that Plastic Revolution can profit together with a strategic German partner. Plastic Revolutions can seek resources of local partners in Germany this can be, for example, facilities, knowledge, and connections (Das and Teng, 2000). In this case Plastic Revolutions should use the transportation network of the local partner.

#### 4.6 Risks

Risks are inherent to every operation the company does and also in the daily routine, but these risks can be controlled and prevented beforehand. Based on this preparation, if risks occur people will know how to proceed and the risk will be in a lower percentage and less strong.

Germany is a country that sees punctuality as a very important factor and disrupting or breaking it is considered very disrespectful. This can damage possible negotiations and is one of the reasons why Germany invests a lot in infrastructure and technology to make things run without setbacks. Germany’s infrastructure is highly technological and very well constructed. This is why truck transportation is considered one of the best methods of transportation to use in Germany, as well as the cost effectiveness compared to other transportation methods.

Companies have been studying supply chains risks and impacts faced by logistics providers in the supply chain. (Husdal, 2015). There are many risks to take into account like *Supply Risks* which means dependence on a certain supplier, production delays or disruption, rigid contracts and all risks that the company may have when having another company as a supplier. In transportation, risks can be seen when there is low quality of transportation. For example, not using the correct trucks to transport the merchandise can be represented in potential problems, or using a lower quantity of personnel than it is required to transport the product. Finally we have the *External Risks*, which can be seen as the climate. This can cause hazardous conditions from the middle of November until March where roads became too dangerous to drive and merchandise can be exposed. On the positive side, Germany's roads are so good with multiple routes that if any road is closed due to extreme weather the truck can choose another path (Husdal, 2015).

Risks can always have solutions, but for that you will need to have a backup plan and how to proceed when problems are presented. In reality, risks will always be something that can happen at moment in time, so is better to be prepared.

## 5. Pricing

Price reflects the equilibrium between demand and supply. The price of recycled plastic usually has the same behavior as virgin plastics because the factor that influences the prices most is oil. On 2008 the price fell sharply, but four years later the prices returned stable. The next table show us all the materials on the chain of value of recycle plastic and virgin plastic, all of these materials affects the prices. The trade volume of wasted plastic has risen since 2000, despite the downturn in economic activity. The traded volume was around 2 million and this reached to 7.5 million on 2010. On this year plastics prices are a little bit lower because of the oil

prices crisis that is on the economy, but the industry has prepared well for this and the prices didn't low so much. At the moment the price per ton is approximately 1380 euros. Other factors will be the consumer parity of purchase. If he buys a high quantity, he can infer in the price, asking for a better one, such as bargaining. Competence also infers, when having a lot of companies competing in the same market, price became the key point to be the supplier and sell the products to the people. There are many pricing strategies but we are going to talk about promotional and bulk pricing which are too often used in Germany and are applied when they want to attract new buyers by promoting prices, discounts, coupons, point of sales discount, where the buyer needs to buy an amount of product to have the discount. Bulk pricing is used to access to a better price by buying large amount or specific amounts difficult to sell in other market, also bulk pricing is used to have better benefits, such as buy one and take another one for free, but this type of promotion is not very used in the plastic industry.

### Current prices

Plastic Revolutions is focusing on the segment of high density polyethylene (HDPE). They process post-consumer and post-industrial waste plastic from landfills into HDPE. Plastic Revolutions is able to process high molecular weight HDPE, which are extremely clean and of high quality. According to their information: "the quality of HDPE flakes and pellets is far superior to that otherwise available". The focus of Plastic Revolutions lays on offering a high quality products. This is important to take into consideration for the price strategy, because it helps to identify the target market. According to Germany Trade & Invest (2015) the most interesting segments are: the packaging industry (share 35%), the construction industry (share 24%) and the automotive industry (share 10%). Because of the fact that Plastic Revolutions

earned the ISO 9001 Registration in 2008 they are able to focus on the 'high-end' producers, who are able to focus on high quality products as well (Plastic Revolutions, 2016).

### Prices German & European market

For the purpose of this analysis the price of HDPE HMW grades and HDPE bottle and injection grades will be analyzed. The graph below shows the average price history of HDPE plastics in Germany.

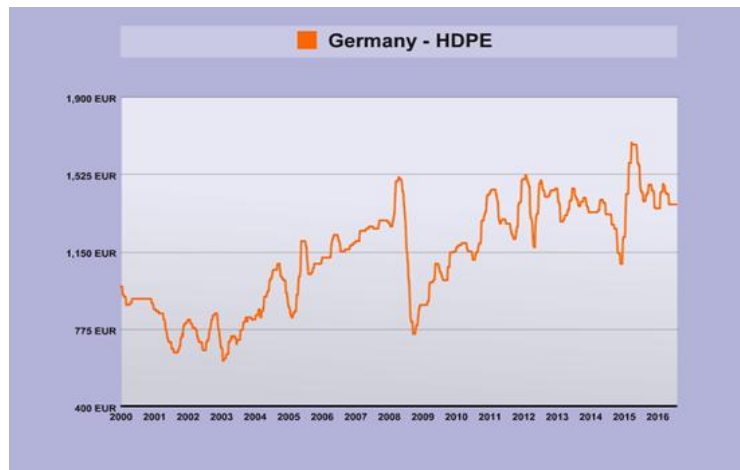


Figure 5.1. Prices HDPE plastic in Germany per metric ton.

The current price of HDPE HMW grades is 1.378,- euros (26-09-2016) and the expectation is that the price will decline in the coming months. The current price for HDPE bottle and injection grades is 1.380,- euros (26-09-2016) and the expectation is that the price will decline in the coming months. The prices are displayed as euros per metric ton, the German prices are free delivered (Polymertrack, 2016). The prices of the German market are compared to the rest of Europe, to get a better understanding of the price strategies in Germany. The average prices for HDPE HMW grades and HDPE bottle and injection are 1.231 euros and 1.232 euros per metric ton (26-09-2016). Germany Trade and Invest and Chemical Parks (2015) stated that the price difference is mainly due the fact that Germany is Europe's number one plastics industry, with high-quality products focusing on the 1th place as world innovation leader.

In Europe, Germany is the undisputed leader in sales and plastics manufacturing production. Germany is also Europe's first country in terms of available plastics production facilities. Another reason that the prices of HDPE plastics are slightly higher is due the high R&D expenses in Germany. The companies need an acceptable return on investment percentage to cover their activities (Germany Trade and Invest, 2015). According to this information the conclusion is that Germany wants to be the innovation leader in the Plastic Industry. Customers in Germany have to pay a higher price due the high quality and the R&D expenses.

### Prices US market

The prices for HDPE HMW Grades in the United States are 1.059 euros and for HDPE bottle and injection grades 1.098 euros per metric ton. The HDPE plastic prices in the United States are respectively -23.15% and -20.44% cheaper than in Germany. A comparison of the German, European and US market is made in the tables below, all the prices are per metric ton. The first table shows the prices in Euros, the second table shows the prices in the home currency of Plastic Revolutions. The XE currency converter (2016) is used to adjust the prices, at the first of October the currency rate is: 1 Euro equals 1.12 US dollar.

	Germany	Europe (average)	United States
HDPE HMW Grades	1.378 euros	1.231 euros (-10.67%)	1.059 euros (-23.15%)
HDPE bottle and injection grades	1.380 euros	1.232 euros (-10.72%)	1.098 euros (-20.44%)

	Germany	Europe (average)	United States
HDPE HMW Grades	1.549 US dollars	1.384 US dollars	1.190 US dollars
HDPE bottle and injection grades	1.551 US dollars	1.385 US dollars	1.234 US dollars

From the perspective that Plastic Revolutions is a viable and competitive company on the US market, there is a possibility that they can profit from the different price margins. However, the transportation costs have to be taken into account, it will cost money to ship their product to Germany. And since Plastic Revolutions is focusing on high-quality products it is not the

intention to offer their products for the lowest price. They should focus on high-volumes so in the end they have higher profits.

### 5.2 Price strategy

Classic price strategy for semi-commodity products like HDPE is progressive discounts per quantity. This is a result for the lack of difference between the products which results in the fact that customers are won through price wars. On the other hand, some could say that grades of purity would matter but actually that just creates categories which lack difference in between. In the case of PRI being recycled puts it in other category of HDPE (specifically recycled pure grade HDPE) it is not considered a huge differentiation from other HDPE, but does put in another category which has a different price set than usual HDPE. This category is more valued because there is appreciation for the fact that it is from recycled material.

The price that PRI should establish for its product is the least possible that still grants it a just margin. The cheaper there price the more they will sell. HDPE market price fluctuates constantly because it is affected by the constant fluctuation of oil, its raw material. Stipulating a set price right now will not be precise. Also, because it will be exported to Germany the foreign exchange rates will also have an effect on the price. The price of the product is something that will have to be monitored and updated constantly.

### 5.3 Sales strategy

For PRI to be successful in the German market it is essential that the sales strategy for the new emerging market to gain a competitive advantage. The key to having a beneficial sales strategy is to communicate with customers effectively by having sales representatives who know their products efficiently to help solve customer problems (Gluck, 2016). The two most common sales strategy are indirect and direct strategies. Direct sales involve selling products to consumers

directly over the counter rather than indirect sales are done when a company uses resellers to sell their products to customers (Banks, 2016). While both sales strategies can be beneficial to a particular company, the indirect sales strategy will be more profitable to the foundation of PRI in helping to establish a strong competitive advantage.

Indirect sales, or channel sales, are not necessarily outsourcing a company's products to a customer, but rather having teams who are aware of their products provide informational services for customers. The teams provide updated information for customers in reference to the products so they may run at their peak of function. While this may cause concern for lack of motivation from the resellers, it can lead to the opposite effect because the more sales they make the more income they will receive (Dickens, 2015). This sales strategy will bode well in the German market because it is very adaptable. Using channel sales would allow PRI to focus on developing and renovating their products instead of spending money and effort towards making sales. According to Dickens (2015), the main benefit of a company working with resellers is having the advantage to rapidly expand a business without having to expand the entire business operation at an increased rate. This would help PRI to get the most for their investment because it is the solution to lead to the most expansive sales growth and allowing them to still focus on sales to their current customers in America.

To help implement this strategy into action in a foreign market, it is important for PRI to consider factors to help implement a plan to successfully carry out indirect sales in Germany. To elaborate on this, Stringfellow (April 2016) suggests to "make a fundamental understanding of your business value proposition and take time knowing that of your customers. By following this piece of advice it would help engage in stronger customer relationships because the innovated products will add value in each step of the supply chain to help build long term relationships



with customers and help ensure consistent customer experiences. Indirect sales will help PRI to enter into the new market because this will help target new customers into promising prospects for their products. Lastly, this sales strategy will help PRI increase sales to customers on a wider scale with their unique recycled products that are not offered as much in the German market (Stringfellow, June 2016). By choosing indirect sales strategy and following these factors, it would help give PRI a distinction against other competitors and help establish a competitive advantage.

## **6. Promotion and Marketing**

Promotion and marketing are key factors to consider for PRI to address to try and promote their products to foreign customers that could already have loyalty to other competitors. To ensure PRI would receive the most positive feedback, creative, inexpensive, and effective strategies must be used to help create attention for future customers.

### **6.1 Advertisement and Promotion**

#### **PRI HDPE Promotion in Germany**

HDPE as has been discussed throughout this project as a semi-commodity which is not bought by the final consumer. HDPE is not bought in its raw form at supermarkets or stores, it is sold directly to industries which manipulate it into packaging, car components, or other items, such as disposable cups, which can then be found in supermarkets and stores. Also the fact that there is a set price for HDPE based on groups of purity and type due to lack of differentiation in between makes promoting PRI's product by no means easy.

The best way we imagine this can be done is make publicity in plastic industry trade fairs. Luckily one of the largest plastic industry trade fairs, the K Fair, takes place in Dusseldorf, Germany from 19th to the 26th. We would highly recommend participating in this fair and

publicizing about PRI there. Another strategy for promoting PRI product would be contacting German industry leaders (Presently with LinkedIn it is easy to discover who these are) and inviting them to trips to visit PRI plant or even a social events to mark PRI's entrance in the market and ferment closer relationship with German industries.

According to Hshare/brand equity, "we suggest allocating between 6 to 12 percent of your gross revenue or the projected revenue." (MINTZ, 2015). This can be considered expensive, but you need to remember that PRI is trying to enter to a market with an audience that does not knows who you are and also consider that there are other companies trying to get there and get known in the market, so you will need to expend hard so you can be recognized faster and easier.

There are many ways and tools to do marketing; here we are going to show you 5 forms of getting known by the others.

1. Branding: this type of form, consist in having an agency that creates your entire brand book, such as your logo, design, illustration such as images and package of the product. This can cost between \$4,000 to \$10,000 dollars, and it depends on the things you ask for. A \$10,000 branding will be a great branding, very complete one.
2. Website: websites are very famous and almost all people looking for something goes to search in internet. Having a website can have or not a cost. There are free pages you can create, such as Wix or WordPress, or having an account with GoDaddy can cost you \$30 dollars or less with a domain for a year or more. PRI needs to know that every well elaborated and with a lot of advertisement website is expensive, but it will differentiate from the competence, the other companies.

3. Social Media: can be the most important advertising and marketing for companies. Every single person has a social media app or page, where are seeing all information daily and quicker. A good social media advertisement, having a platform will cost you between \$1,500 and \$2,500. And a great social media, which means more than one platform, more software and real time interactions and PR integration, will cost more than \$4,000 dollars.
4. Advertising: normal advertising such as printing papers, billboards and word of mouth, will cost between \$500 to \$1,500 dollars. And a great advertising with full social media, outdoor, print, digital, will cost you at least \$3,000.
5. Events: very useful to get known easily and faster by the people, but events can attract certain people, not all the population such as a social media will do, but events can help you to meet with the final consumer, with potential buyers and also know who are your competence and rivals in the industry. Events is an easy way to get known and know each other, but is the most expensive tool. It cost starts from \$5,000 dollars for a small event and can go to millions depending on the magnitude of the event.

At the end, our budget would be kind of \$22,030 Dollars minimum for marketing, and annually would be more or less \$270,000 Dollars. We arrive at this budget point considering the marketing costs in Germany and comparing to a normal budget for every large or big company in the market. With this budget you will be able to reach new companies, new buyers and to establish alliances with other potential companies of the market. All budgets can be modified, but the budget we got for PRI is a normal budget that will guarantee PRI to be recognized by others. Of course the budget can be bigger if the company wants to make a better advertisement and improve relations. This is why we suggest to deliver a 12 percent of the annual revenues to the marketing budget so advertising and marketing can be well done.

## 6.2 Allocation of the Marketing Budget

Plastic Revolutions Inc. as a brand is a common name as they culturally speak perfect English making easier to recognize in language aspect at least. It is still important to put German first, maybe not for name changing but, for a new slogan in a new market. PRI media was analyzed to find there could be any that may generate negative reaction from German culture, consumers and/or companies but the used language was good. Lastly, it is also important to analyze the packaging and quality of the products.

**Packaging:** PRI's final product is the processed plastic in pellets after this has been recycled. It becomes a useful product ready to be used as raw material in different industries. After the plastic is processed, it is packaged in cubic boxes and moved to the buyers. In the boxes it is not possible to see any label so a conclusion around this could their product is not a product for massive consumption. Instead, it can be a product for business to business (B2B) since it is not important a label be present on the product. By choosing this as an option, it would could help prevent problems at the time of commercialized HDPE.

**Quality:** Germany's formality and quality are related to how strict they are with business. Germany is known to produce better products compared with the US quality. Since American culture is not as strict as German culture, this can be perceived to have a lesser value in quality. This is an important issue to know when having personal interactions with potential customers. ISO certification supports the quality of their processes internationally but for internationalization is always important analyze specifically important aspects as this one.

## 7. References

- American Chemistry Council, Economics & Statistics department. (2015, May). The rising competitive advantage of US Plastics. Retrieved from <https://plastics.americanchemistry.com/Education-Resources/Publications/The-Rising-Competitive-Advantage-of-US-Plastics.pdf>
- Avangard Innovative. (2016, 10 September). Retrieved from <http://www.avaicg.com/>
- Banks, Linda. (2016). Direct and Indirect Sales Strategy. Retrieved from <http://smallbusiness.chron.com/direct-indirect-sales-strategy-2208.html>
- Chemical Parks. (2016, September 21). Advantage of location Germany. Retrieved from <http://www.chemicalparks.com/location/Seiten/default.aspx>
- Das, T. K., & Teng, B. S. 2000. A Resource-Based theory of strategic alliances. Journal of Management. 26(1): 31-61
- DHL Express. (2012, October). Weights & Dimensions. Retrieved from [http://www.dhl.com.co/content/dam/downloads/g0/express/shipping/weights\\_and\\_dimensions/weights\\_and\\_dimensions\\_en\\_lm.pdf](http://www.dhl.com.co/content/dam/downloads/g0/express/shipping/weights_and_dimensions/weights_and_dimensions_en_lm.pdf)
- DHL Express. (2016, January 01). Services and Tariffs Guide. Retrieved from [http://www.dhl.com.co/content/dam/downloads/co/express/es/shipping/rate\\_guide/dhl\\_express\\_rate\\_transit\\_guide\\_co\\_es.pdf](http://www.dhl.com.co/content/dam/downloads/co/express/es/shipping/rate_guide/dhl_express_rate_transit_guide_co_es.pdf)
- Dickens, Andy. (2015, February 17). Direct Sales vs Channel Sales- What's the Difference? Retrieved from <http://www.virtual-sales.com/direct-sales-vs-channel-sales/>
- DIW Berlin. (2015, December 2). German construction industry booming despite decline in energy-efficient refurbishment. Retrieved from [https://www.diw.de/sixcms/detail.php?id=diw\\_01.c.521534.en](https://www.diw.de/sixcms/detail.php?id=diw_01.c.521534.en)
- Emerald Pacific. (2016, September 09). Retrieved from <http://www.emerald-pacific.com/>
- European Commission. (2016, April 29). Trade. Retrieved from <http://ec.europa.eu/trade/policy/countries-and-regions/countries/united-states/>
- Export.gov. (2016, September 24). Trade Regulations, Customs and Standards. Retrieved from <http://2016.export.gov/GERMANY/MarketResearchonGermany/CountryCommercialGuide/TradeRegulationsandStandards/index.asp>.
- EY. (2015). European attractiveness survey, Europe 2015: Comeback Time. Retrieved from

- [http://www.ey.com/Publication/vwLUAssets/EY-european-attractiveness-survey-2015/\\$FILE/EY-european-attractiveness-survey-2015.pdf](http://www.ey.com/Publication/vwLUAssets/EY-european-attractiveness-survey-2015/$FILE/EY-european-attractiveness-survey-2015.pdf)
- German Auto Recycling Law. (n.d.) Case 28, GERMAUTO. Retrieved from <http://www1.american.edu/ted/germauto.htm>
- Germany Trade & Invest. (2015, January). Industry overview, the plastic industry in Germany. Retrieved from <http://www.chemicalparks.com/PressReleases/Documents/2015-01%20Industry%20Overview-The%20Plastics%20Industry%20in%20Germany.pdf>
- Gluck, Samantha. (2016). What is Sales Strategy? Retrieved from <http://smallbusiness.chron.com/sales-strategy-629.html>
- Husdal. ( 2015, September 12 ). Supply Chain Logistics Risk in Germany. Retrieved from <http://www.husdal.com/2010/10/20/supply-chain-logistic-risk-in-germany/>
- International Trade Organization. (N.D.). Retrieved from <https://www.export.gov/search#/search?q=Germany& k=3l5hg9>
- Larson, D. ( 2003, August 15). PN. SWOT for the plastics industry. Retrieved from <http://www.plasticsnews.com/article/20030815/OPINION02/308159999/swot-for-the-plastics-industry>
- Leonidou, L. C., Leunidou, C. N., & Kvasova, O. 2010. Antecedents and outcomes of consumer environmentally friendly attitudes and behaviour. *Journal of Marketing Management*, 26(13-14): 1319-1344
- Santander Trade. (2016, August ). Llegar al consumidor en Alemania. Retrieved from <https://es.portal.santandertrade.com/analizar-mercados/alemania/llegar-al-consumidor>
- Make it in Germany. (N.D.). Building and Construction. Retrieved from <http://www.make-it-in-germany.com/en/for-qualified-professionals/working/industry-profiles/building-and-construction>
- MINTZ, L. (2015, March 11). How to determine the perfect marketing budget for your company. Retrieved from entrepreneur <https://www.entrepreneur.com/article/243790>
- Plastic Europe. (2015). Plastics – the facts 2015: an analysis of European plastics production, demand and waste data. Retrieved from <http://www.plasticseurope.org/documents/document/20151216062602-plastics the facts 2015 final 30pages 14122015.pdf>
- Plastic Revolutions. (2016, September 08). Retrieved from <http://www.plasticrevolutions.com/>
- PMC Biogenix. (2016, October 09). Retrieved from <http://pmcbiogenix.com/>

- Recycling today (2015, June 15). Germany makes progress toward modern recycling law. Retrieved from <http://www.recyclingtoday.com/article/germany-recycling-proposal-bvse/>
- Stringfellow, Angela. (2016, April 14). Retrieved from Docurated <http://www.docurated.com/all-things-productivity/sales-strategy-secrets-and-tips-from-top-sales-pros/>
- Taylor, N. F. (2016, April 1). SWOT Analysis. Retrieved from Business News Daily <http://www.businessnewsdaily.com/4245-swot-analysis.html>
- The Heritage Foundation. (2016). Index of economic freedom. Retrieved from <http://www.heritage.org/index/country/germany>
- The World Bank. (2016, September 15). Global Rankings 2016. Retrieved from <http://lpi.worldbank.org/international/global?sort=asc&order=LPI%20Rank#datatable>
- Trade & Industry development. (2015, November 12). Site selection trends in the plastic industry. Retrieved from <http://www.tradeandindustrydev.com/industry/plastics/site-selection-trends-plastics-industry-10999>
- TopLisTenz. (2016). List of top ten countries with the highest recycling rates. Retrieved from <http://toplistenz.com/list-of-top-ten-countries-with-the-highest-recycling-rates/>
- Umwelt Bundesamt. (2014, May 08). Waste regulations. Retrieved from <http://www.umweltbundesamt.de/en/topics/waste-resources/waste-management/waste-regulations>
- U.S. Commercial Service, Commercial Specialists and the CS Manufacturing Team. (2015, March). Plastic Materials and Machinery Export Guide: A Reference for U.S. Exporters in the Plastic Industry. Retrieved from [http://build/groups/public/@eg\\_main/@bying/@manufind/docs/webcontent/eg\\_main\\_081772.pdf](http://build/groups/public/@eg_main/@bying/@manufind/docs/webcontent/eg_main_081772.pdf)
- US Environmental Protection Agency. (2016, September 7) Plastic and rubber manufacturing. Retrieved from <https://www.epa.gov/regulatory-information-sector/plastics-and-rubber-products-manufacturing-naics-326>
- Waste360. (2016, September 15). What operation Green Fence has meant for recycling. <http://www.waste360.com/business/what-operation-green-fence-has-meant-recycling>
- The Week. (2016). Oil price edges higher on petrol-stocks drop. Retrieved from <http://www.theweek.co.uk/oil-price/60838/oil-price-edges-higher-on-petrol-stocks-drop>
- Worldwatch Institute. (2015, January 28). Global plastic production rises, recycling lags. Retrieved from Worldwatch Institute. 2015. <http://www.worldwatch.org/global-plastic-production-rises-recycling-lags-0>

