Seer Company

Air pollution

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Goal of the company

The goal of SEER is to improve air quality inside houses by making a cheap product that people can afford and to make profit with that.
When our target group buys our product we can create a save space in their environment, since outside is almost impossible to breathe.
The target group of SEER is households in places where air pollution is really bad. So the product can be used in and around the house of households to improve the air quality in their own living space.
For the first year we would like to target India, because this country is the worst at the moment according to our research.

Customer and value

This moment people in India are aware of the air pollution in their country but the difference between poor and rich is really big. The people with more money can afford one of the existing solutions. Those are big filters plus fans in one device, but those are really expensive (100 euros and even more according to Amazon). Since an average person in India earns 332 euros a month, this is not a solution for a lot of India People.
So the value our products brings is a cheaper solution for a lot of people in India. They can buy our product plus a HEPA filter for only 20 euros. By working together with Smartair (a company that produces HEPA filters located in China and India) we can produce at location so it will cut the transport costs and we can provide cheaper HEPA filters to the customer.

Research

The reason why this topic is chosen, is that air pollution is a big problem all around the world. Right now it is even so bad that people are experiencing health problems. The problem is so far developed that there are too many people dying because of this pressing issue.

The map below (figure 2) shows in which countries the air pollution is the worst compared to the rest of the world. As you can see Asia has the worst air quality.

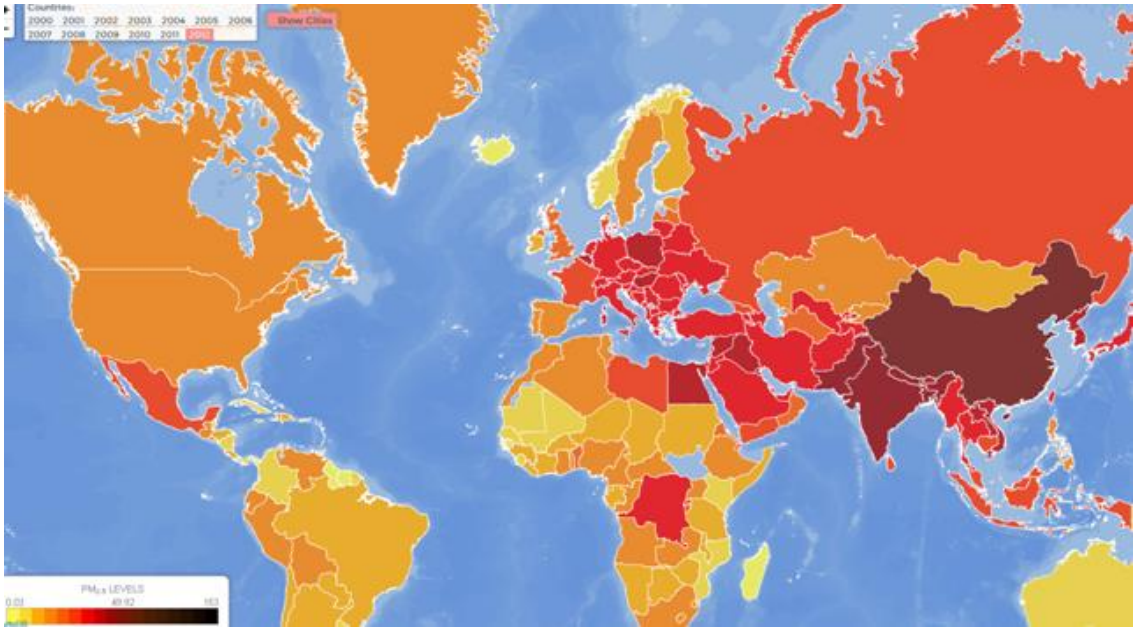

Figure 2: map that shows the polluted air spread across the globe

The graph below (figure 3) shows how many people have died only because of the air pollution, the graph indicates the number of deaths worldwide, in millions. These are only the ones that are registered to have died from air pollution, the ones that have died by one of the side effects are not shown here.

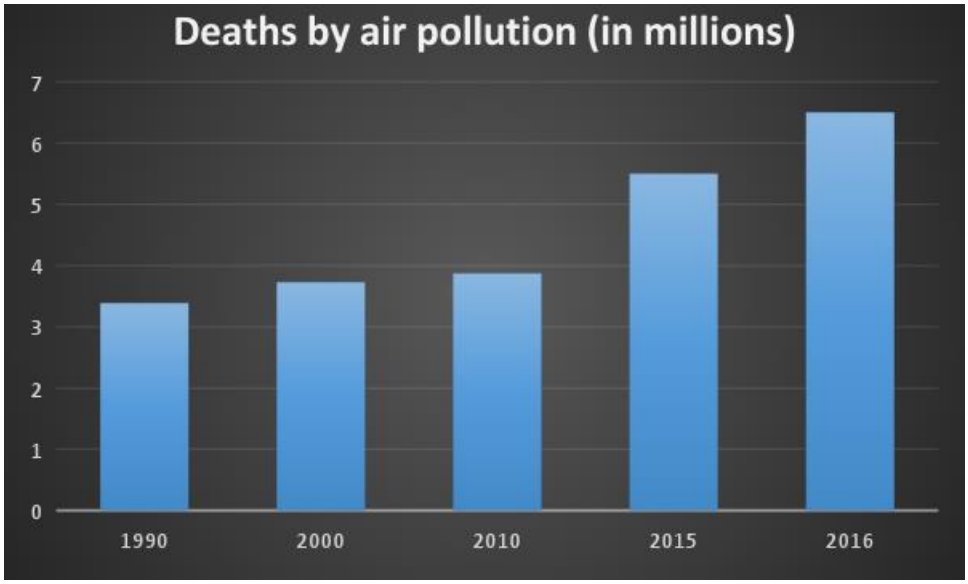

Figure 3: graph that shows the deaths related to air pollution.

The map below (figure 4) was made by CNN to give a clear understanding of how the total death toll is spread across the globe. The map shows the percentage of each country, the deaths are from air pollution itself or air pollution related problems.

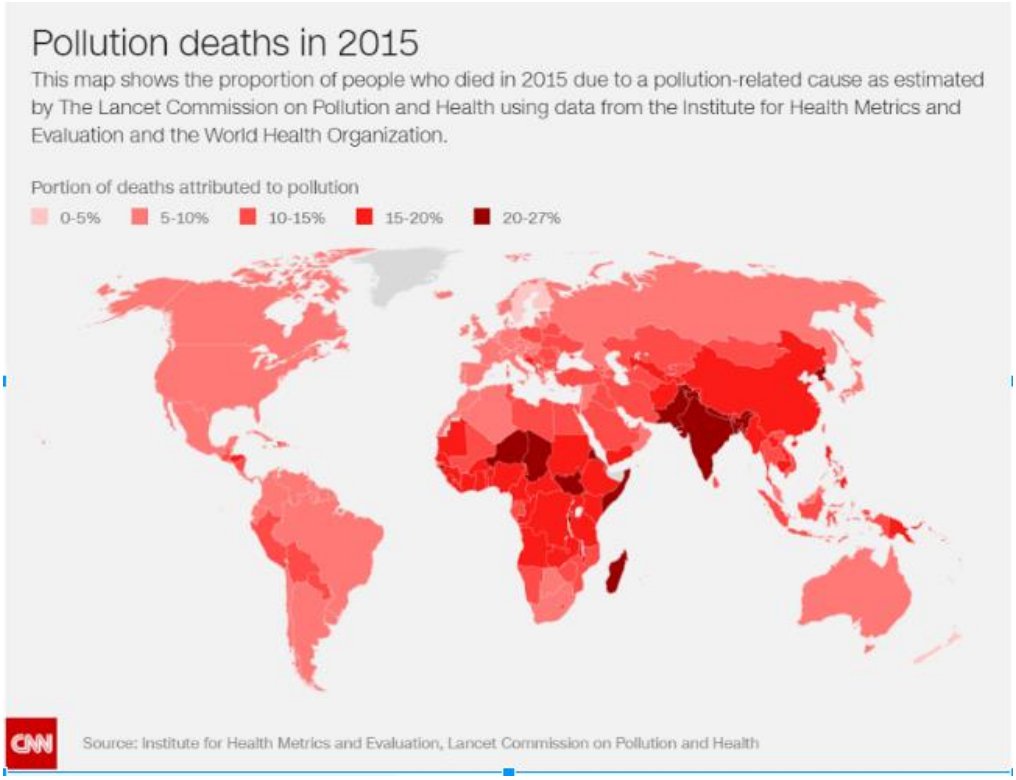

Figure 4: The map with deaths related to air pollution across the globe.

The total death count in India is 10 deaths per minute which are registered. This results in a total of 5.256.000 deaths per year in India. The map shows that the air pollution related death toll is around 20 to 27%. This means that the minimum death toll because of air pollution is 1.051.200 and the maximum is 1.419.120. That means that an average of 1.235.160 deaths per year in India are related to air pollution.

The fact that people are dying of air pollution means that there must be a negative effect on the health of humans, the image below (figure 5) shows some of the effects air pollution can have on the human body.

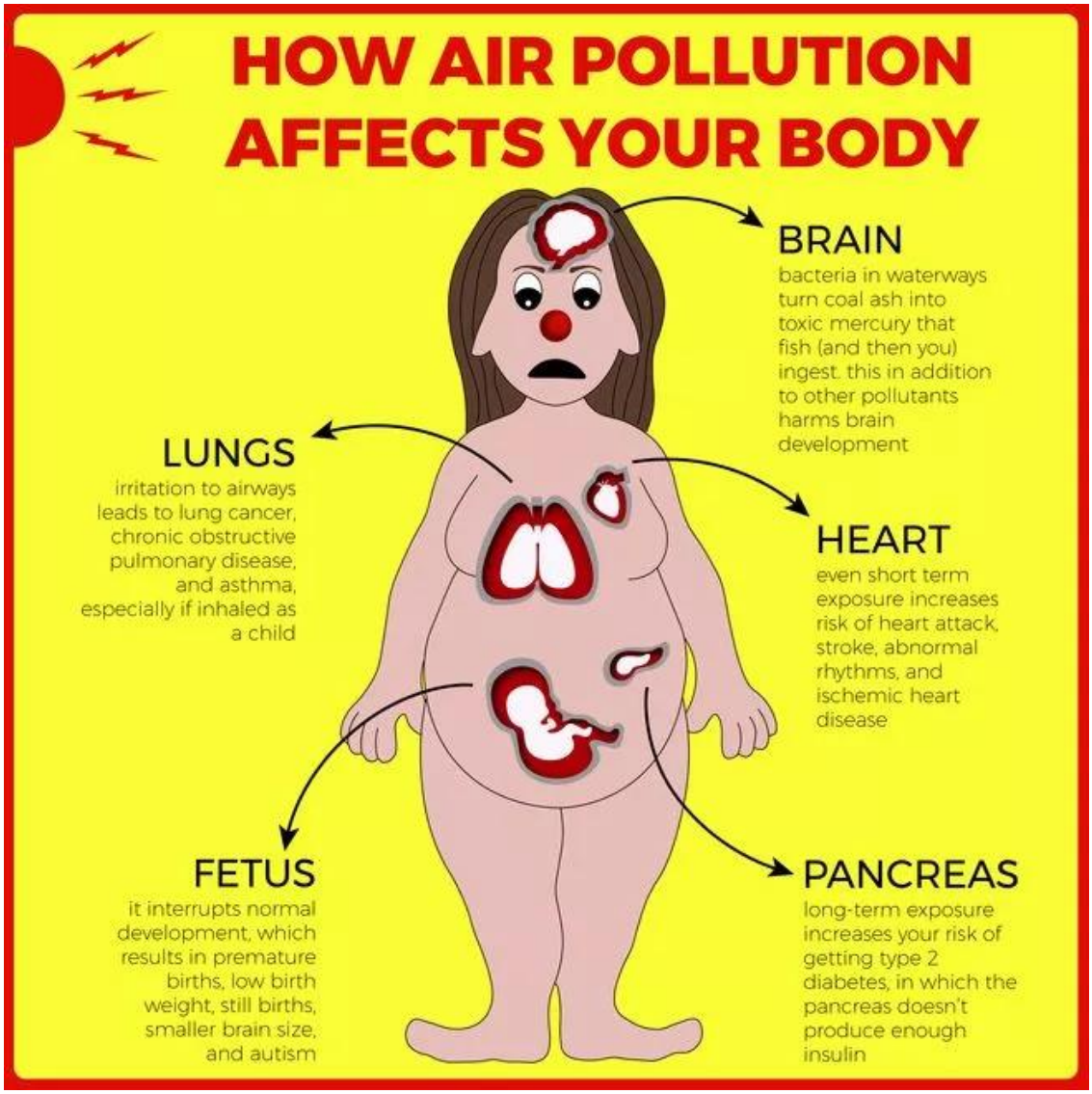

Figure 5: Image that shows what kind of effects particulate matter has on the human body.

As you can see the pollution does not only affect the airways in your body. Most of the particles that are smaller than PM2,5 (smaller than 2,5 micrometers) move much further into your body, resulting in many different diseases. The particulate matter does not only affect all humans. It also has a bad effect on, for example, your pet animal and the environment.

Competitors

The product SEER wants to make has competitors, but in a very different price range. Those competitors have products with a fan and filter in one product. Like the Dyson purifier (325.05 dollar according to amazon) or the Honeywell filter (169,99 dollar according to amazon). We compare the prices with our competitors at Amazon, because with that website we would like to sell our own product.

Structure Company

Our company exists out of 6 people: Theodor Ketelaars, Tom gruijters, Stef van der Velden, Rene Hoegaarden, Alexander Salvador en Chiara Brands.
We all started the company SEER together and we have equal rights in the company.

Product Description

Our product is called FreshFan. The goal of the FreshFan is to clean the air in households, so we can create a save living environment for the people who are dealing with air pollution daily.
Our product is a product you can put on a regular Fan most people have with a HEPA filter so the air inside can be filtered. It is made out of ABS to make it cheap (because people in India cannot afford much. Freshfan is going to cost 20 euros included filter. The filters need to be replaced so we offer a subscription of 2 filters in one year delivered at home.
The product is going to be injection molded in India working with the company Smartair. They already have a fabric over there so our transport cost will stay low. By being partners with them we can ask less for the HEPA filters. The selling points are Amazon, website of Smartair and the website of SEER company.

Cost Calculation

Production cost

Volume product:	889295 mm³
Dimensions (lxbxh):	40,5 cm * 40,5 cm * 10,8 cm
Material:	ABS
Material density:	1,06 kg/dm³
Product weight:	volume * density= 0,889295 * 1,06 = 0,9426527 kg

COST CALCULATION: http://www.china-plasticmolding.com/?gclid=CjwKCAiA15vTBRAHEiwA7SnfcxMoAnilYvIfOBcIZZotI8TVHxaDDKQSkduM_BfsE_wIc3LUvyWCahoCXgIQAvD_BwE#pricing

Mold price:	$24094	= €19519,-
Product cost per product:	$2,14	= €1,73

Part Information	
Product Size : 40.50 cm * 40.50 cm * 10.80 cm	
Cavity : 6	Life : <200000
Plastic : ABS	
Mold Price Calculation	
Mold Frame : 2099.41 USD	Mold Core : 2464.03 USD,p20 US Made
Copper Electrode : 3181.88 USD	Total material : 7745 USD
Production Cost : 10802 USD	Hot Runner : 0.0 USD
Management Cost : 20%	Tax : 1836.46 USD
Total Mold Price : 24094 USD	
Product Price Calculation	
Material Unit Price : 1.74 USD/kg	Product Material Cost : 1.57 USD
Production Speed : 60 seconds	Chosen Injection Machine : 900 Ton
Production Cost : 0.12 USD	Profit : 10%
Tax : 10%	Product weight : 0.9 kg
Product Unit Price : 2.14 USD (Note)	

Price injection molding ($) = 24094 + 2,14*X
Price injection molding (€) = 19519 + 1,73*X

Packaging cost

Cardboard box with lid, no print
No print (yet)

Price:	$0,65
Amount first year:	10000
Packaging price first year:	$6500

Final cost calculation

20.000 pieces in 1 year

Mold price:	€20.000,-
Product cost:	€35.000,-
Packaging:	€13.000,-
Transport:	€12.000,-
Total:	€80.000,-

This makes our cost per product 4 euro. With 10 euros for the HEPA filter we can make 6 euro per product. This is 6x20000=120.000 in our first year. This means a profit of 40.000 euros in our first year.

BMC

Below you can see the Business model Canvas Of SEER Company:

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