**Plastic information references**

*All references were retrieved 8.1.2020*

EUROPEAN CHEMICALS AGENCY (ECHA) - The problem with microplastics

https://chemicalsinourlife.echa.europa.eu/the-problem-with-microplastics

NATIONAL GEOGRAPHIC - The world's plastic pollution crisis explained

https://www.nationalgeographic.com/environment/habitats/plastic-pollution/

NATIONAL GEOGRAPHIC - Tiny pieces of plastic found in Arctic snow

https://www.nationalgeographic.com/environment/2019/08/microplastics-found-in-arctic-snow/

NATIONAL GEOGRAPHIC - Animals Eat Ocean Plastic Because it Smells Like Food

https://www.nationalgeographic.com/news/2016/11/animals-eat-ocean-plastic-because-of-smell-dms-algae-seabirds-fish/

TWO OCEANS AQUARIUM - The plastic problem: How does plastic pollution affect wildlife?

https://www.aquarium.co.za/blog/entry/the-plastic-problem-how-does-plastic-pollution-affect-wildlife

NEW YORK TIMES - Dead Whale, 220 Pounds of Debris Inside, Is a ‘Grim Reminder’ of Ocean Trash

https://www.nytimes.com/2019/12/02/world/europe/harris-beached-whale.html

TROPICAL CONSERVATION FUND – Plastics are drowning wildlife

https://www.tropicalconservationfund.com/plasticswildlife.html

WORLD WILD LIFE - What do sea turtles eat? Unfortunately, plastic bags.

https://www.worldwildlife.org/stories/what-do-sea-turtles-eat-unfortunately-plastic-bags

NATIONAL WILDLIFE FEDERATION - A Plague of Plastics

https://www.nwf.org/Home/Magazines/National-Wildlife/2019/June-July/Conservation/Ocean-Plastic

NEW ATLAS - Arctic snowfall found to carry tiny fragments of plastic

https://newatlas.com/arctic-snow-microplastics-study/61069/

ASSOCIATION OF THE LAKE REGIONS - Microplastic in water: harmful or not?

http://interlaker.org/en/news/2019/mikroplastik-v-vode-vreden-ili-net-/

DAVE ASPREY - New Study Finds Microplastics in Your Sea Salt. Here’s What You Need to Know

https://blog.daveasprey.com/microplastics-sea-salt/

NATIONAL GEOGRAPHIC - Great Pacific Garbage Patch

https://www.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/

THE OCEAN CLEANUP

https://theoceancleanup.com/

**PEPPER DIALOGUE IN GREEN (CHOREGRAPHE)**

**HTML STUFF IN YELLOW**

**PAGE IN BLUE**

**UXBOTS Prototype - Pepper Dialogue**

**9.1.2020**

// counted 29 pages. It’s a bit much innit????? But some parts are rather simple. For example, some just need a picture, and dialogue. Not even text.

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**Main**

data:image/png;base64, or data:image/png;base64, or 

When logo is clicked, go to Survey

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Survey**

Hello, would you like to take part in an informative (interactive) survey? It will take only about X minutes.

Background image?

Text: Please take part in a quick survey.

* Yes
* No

If Yes, go to page Recycle

If No, go to page Survey\_no

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Survey\_no**

Are you sure? This won’t take much of your time, and it will be anonymous.

Black background, no image

Are you sure?

* Yes
* No

If Yes, go to page Recycle

If No, go to page Sad\_face

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Sad\_face**

Okay then (+ sad animation)

image: sadface1 (black background)



Show for 5 seconds, then go to Main

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Recycle**

*//This is the first survey question, leads to 2 paths: the YES-path and NO-path which are slightly different at the last two pages. But same at the middle.*

Awesome! I am interested in your thoughts on environmental issues. My first question is \ pau = 900 \ do you recycle plastics?

Do you recycle plastics?

* Yes
* No

If Yes,

Awesome! Plastic recycling is important, \ pau = 900 \ and I will tell you more about it.

If No,

Okay. I will tell you more about plastic.

Go to Problem

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Problem**

Image: nature1.jpg (or some better)



Plastics are an essential part of our economy. Yet \ pau = 900 \ they can have a serious effect on our health, and our environment.

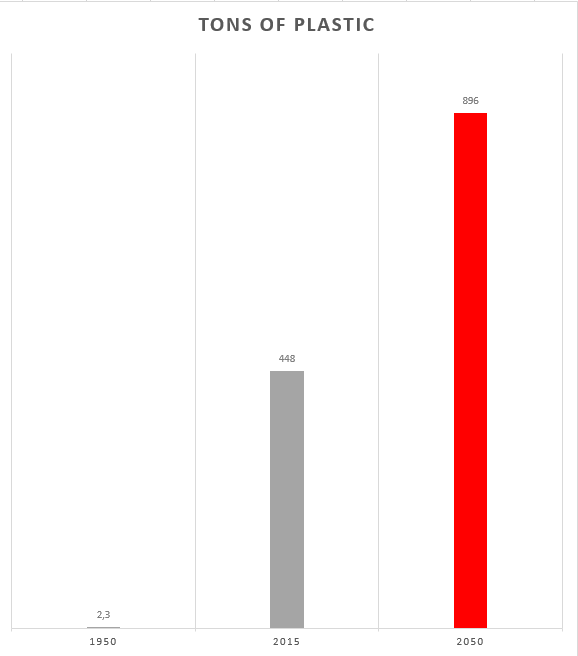
Plastic pollution has become one of the most pressing environmental issues. (Single-use plastics account for 40 percent of the plastic produced every year.) Many of these products, such as plastic bags, are used only for minutes to hours, yet they may persist in the environment for hundreds of years.

Go to Chart or Microplastics

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**Chart (optional)**

Image: chart1.jpg



Did you know that plastic production has increased exponentially?

In the 1950’s humans produced 2.3 million tons of plastic.

by 2015 humans had produced 448 million tons of plastic.

Production is expected to **double** by 2050.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microplastics\_1**

*// this will be either 7 pages or 1 page that is able to switch the picture during dialogue.. Or find a way to make it even shorter.*

Did you know that plastics can be found in smaller sizes, known as microplastics. Microplastics are very small particles of plastic material, like this.

image microplastic3

 source: [https://miro.medium.com/max/1200/0\*1nRpKf8oQwfDyZUa.jpg](https://miro.medium.com/max/1200/0*1nRpKf8oQwfDyZUa.jpg)

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**Microplastics\_2**

Microplastics are created by the plastic industry, and used in certain cosmetics, detergents, cleaning products, paints, even synthetic clothing.

Image microplastic6 (OR A PICTURE OF SYNTH CLOTHING?)

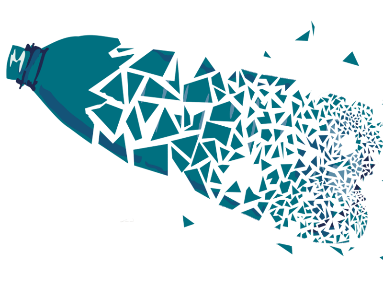
 source: <http://interlaker.org/upload/iblock/9ab/9abccd055e4e08e0552a5d27cb6188a5.jpg>

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microplastics\_3**

Some microplastics are formed unintentionally, when wasted plastics break down in the environment.

Image: microplastic1

 source: <https://www.kobis.hr/microplastics-analysis-ftir-raman/>

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microplastics\_4**

Microplastics are breaking down further into smaller and smaller pieces. Plastic microfibers have been found in municipal drinking water systems and drifting through the air.

Image: microplastic2

 source: <https://www.medicalnewstoday.com/articles/326144.php#1>

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microplastics\_5**

Microplastics have spread everywhere on Earth. They can even be found in the snows of Arctic.

Image: microplastic4

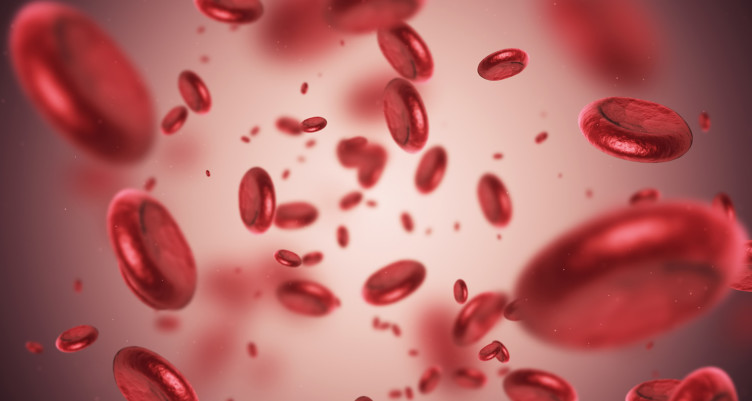
source: Alfred Wegener Institute

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microplastics\_6**

Some plastics contain hazardous chemicals that can have a negative impact on nature or human health.

Image microplastic5

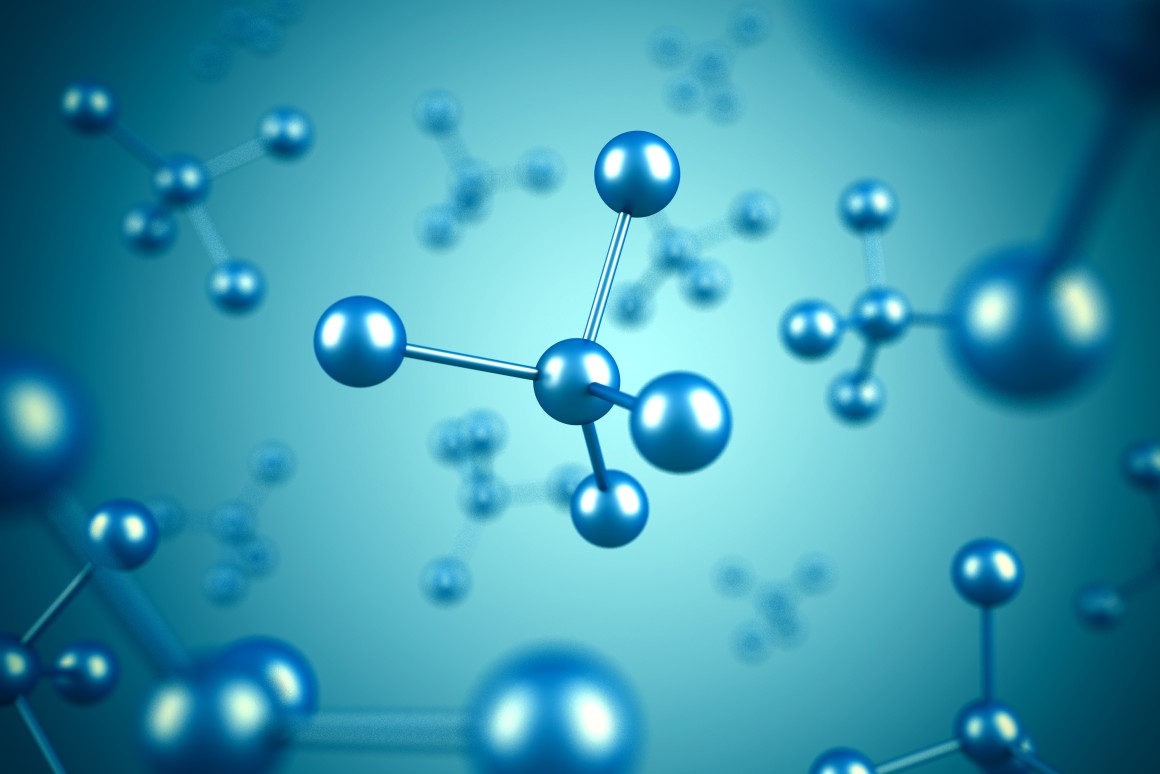
 <https://blog.daveasprey.com/wp-content/uploads/2018/10/Are-There-Microplastics-in-Your-Sea-Salt_How-microplastics-impact-your-health-752x401.jpg>

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microplastics\_question**

What concerns you most about microplastics?

Image: microplastic7

https://assets.newatlas.com/dims4/default/7de88f1/2147483647/strip/true/crop/4000x2669+0+166/resize/1160x774!/quality/90/?url=https%3A%2F%2Fassets.newatlas.com%2Fea%2F32%2Fb41c2b654235b5174572fcfa4365%2Fdepositphotos-139860734-xl-2015.jpg

Bullet points

* Microplastics have spread everywhere on earth
* Microplastics are used in products
* Some microplastics contain hazardous chemicals

//the problem is that if we have bullet points + question on one page, it’s too much text?

What concerns you most about microplastics?

1. The dangers to health
2. Environmental pollution
3. Both A and B

If dangers,

Blabla

If pollution

Blbla

Some informative text here based on user’s response to be added later.

Go to Animals

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**Animals\_start**

*//Image?*

*// this will be 4-5 pages or 1 page if pictures can be changed during dialogue*

There is something else I want to talk about.

Not only is plastic harmful to environment and human health, animals are affected too.

Millions of animals are killed by plastics every year, from birds to fish to other marine organisms. Nearly 700 species, including endangered ones, are known to have been affected by plastics.

From getting stuck in nets to eating plastic that they think is food, creatures worldwide are dying from material we made.

Let me show you.

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**Animals\_whale**

Image: whale1

Source: *Scottish Marine Animal Stranding Scheme*

This 10-year old whale washed up on a Scottish beach with more than 220 pounds of tangled netting, rope, plastic and other debris inside its stomach.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Animals\_turtle**

Image: turtle3

 *source?*

A floating plastic bag can look like a jellyfish or other species that make up a large component of the sea turtles’ diet.

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**Animals\_bird**

Image: bird2

source *Tropical Conservation Fund*

Nearly every species of seabird eats plastics (or “Hundreds of thousands of seabirds ingest plastic every year”). Plastic ingestion reduces the storage volume of the stomach, causing birds to consume less food and ultimately starve.

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**Animals\_algae**

**Optional (extra)**

Image: algae2



A new study suggests animals don’t eat plastic only because it looks like food. They eat plastic because it smells like food to them. Floating plastic debris provides a platform for an organism called algae to form. As algae breaks down naturally in the ocean, they emit an odor that they attribute to food.

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**Animals\_seal**

Image: seal2

*source?*

Discarded fishing nets entangle countless creatures, strangling or drowning them and sometimes severing their limbs. Entangled animals also have trouble feeding and escaping predators and suffer injuries that can become lethally infected.

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**Animal\_question**

Image: combination of all the animal pictures?

In your opinion, how should these animals be helped?

* By removing plastic from oceans
* By creating awareness
* Both A and B

If removing plastic,

Good idea. Luckily something is being done about it already. Let’s move on.

If creating awareness,

Good idea. Making people aware of these issues helps the cause.

If both,

Excellent choise. Both of these options help the animals and the environment.

Let’s move on. (add this to each option as ending)

or

After seeing these pictures and hearing about these animals, which feeling would you associate most?

* Anger
* Sadness
* Helplessness
* Embarrassment
* Neutral

If Anger,

Yeah, it is understandable. Let’s move on.

If Sadness,

You are not alone. Many people feel sad about this. Let’s move on.

If Helplessness,

Don’t worry, maybe there is something to be done. Let’s move on.

If Embarrassment,

It sounds like a healthy reaction, if you feel embarrassed for what humans have caused. Let’s move on.

If neutral,

Alright. Let’s move on.

Go to Garbage\_patch

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**Garbage\_patch**

Find image

The Great Pacific Garbage Patch is a collection of marine debris in the North Pacific Ocean. It spans from the West Coast of North America to Japan. This debris, mostly consisting of plastic, can be very harmful to marine life.

Because the Great Pacific Garbage Patch is so far from any country’s coastline, no nation will take responsibility or provide the funding to clean it up.

Go to Cleanup

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**Cleanup**

But there is a project that has received funding. The Ocean Clean up project aims to clean 90 % of ocean plastic pollution. The project develops advanced technologies to rid the oceans of plastic. They have designed a cleanup system that catches plastic from the ocean with a floating barrier.

Image cleanup2

https://assets.theoceancleanup.com/app/uploads/2019/05/towing-640x426.jpeg

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cleanup question**

Now, if you were working on the Clean Up project, which would be your role?

If you were working on the Clean Up project, which would be your role?

* Crew member
* Investor
* Scientist or engineer
* Communicator or reporter

In your opinion, who should pay for the clean-up?

Who do you think should pay for the clean-up?

* Nations that litter
* All nations of the world
* Private investors
* No one

If nations that litter,

blabla

If All nations,

blabla

If private investors,

blabla

If no one,

blabla

Go to Suggestions

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Suggestions ( 2 versions)**

// based on YES / NO at the start, this needs 2 versions, one where the plastic recycling is suggested and one where it is suggested to continue. Same for pledge.

Now that you have seen some of this information, I have some suggestions that you as an individual can do. My suggestions are,

Avoid products that come with unnecessary disposable plastic packaging.

Perhaps consider the entire life cycle of a product.

And to keep recycling plastics. (if user said YES to first question)

And to start recycling plastics. (if user said NO to first question)

Go to Pledge

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// lets discuss the final pledges, Vilma had good ones too

**Pledge (2 versions)**

Please make a pledge today. Here are 3[4] options you can choose to act today and help. Please choose one!

* [I will start recycling plastic] (only if user clicked “no” at the start)
* I will refuse single-use plastics and avoid products that have unnecessary plastic packaging.
* I will boycott products that contain microplastics.
* I will increase awareness by having discussions with other people or post in social media.

*separate options*

* I already do all these things
* I don’t want to make a pledge

Dialogue for pledges

You have chosen to start recycling plastic. This is great! You should be able to find a plastic recycling point near your house. If there isn’t one, take steps to request one.

You have chosen to refuse single-use plastics and unnecessary plastic packaging. Thank you! Since the customer is always right, the industry will eventually have to take more steps to offer alternatives to single-use plastics.

You have chosen to refuse products that include microplastics. This is a good action for the environment and your health.

You have chosen to pass this information to the people. This will help spread knowledge about the problems related to plastics.

*and then:* Thank you for making a pledge today!

*(*

If “I already do all these things”,

You are a very educated and environmentally aware person. It is great to hear you have already taken these important steps. Have a nice day.

If “I don’t want to make a pledge”, go to No\_pledge

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**No\_pledge**

Why don’t you want to make a pledge today?

Why don’t you want to make a pledge?

* I already do all these things
* I don’t care about these problems
* I don’t want to say

If “I already do all these things”,

It’s good to hear that you are already doing these things. You seem like an environmentally aware person. It is great to hear you have already taken these important steps. Thank you for your time! Have a nice day.

If “I don’t care about these problems”

I’m sad to hear. But I hope you reconsider. Have a nice day.

If “I don’t want to say”,

It’s alright. But I hope you reconsider. Have a nice day.

Go to Main