

SheHack 2019



EARTH-X

PRESENTED BY
XERTIA



PROBLEM STATEMENT

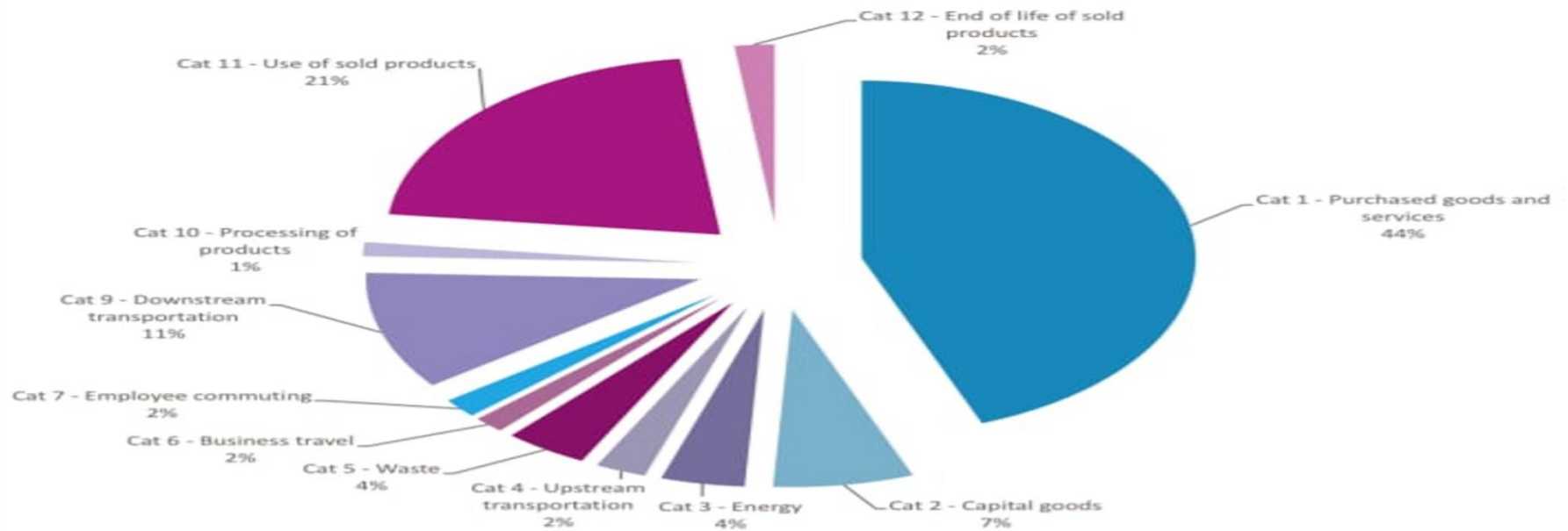
To develop a modern solution to environmental crisis by making individuals aware of their impact on climate change. Making an application to alert citizens of their carbon footprint using advanced Machine Learning and Web Development. Furthermore, to suggest changes in the users lifestyles, to cut down on emissions and pollution.

STATISTICAL ANALYSIS

Last year's Global Carbon Project forecast for 2017 (a forecast because the year was not over when the data were first published) made a splash: They expected fossil carbon dioxide emissions to grow in 2017, after flattening from 2014 to 2016.

Prior to this, the climate community had been patting themselves on the back as emissions had been stabilizing. In a rough wake-up call, the Global Carbon Project found this was no longer the case. This year's numbers confirm their earlier projection: Total carbon dioxide emissions from fossil fuels and industry rose by 1.6 percent in 2017 to 36.2 gigatonnes CO₂.

Despite the 2015 agreement, global carbon emissions increased 1.7 percent in 2017 and a further 2.7 percent in 2018; it has been estimated that the rate of increase in 2019 will be among the highest on record. The last four years have been the hottest on record, with 2019 on track to make it five.



CONTRIBUTIONS TO SCOPE 3 EMISSIONS

OUR TAKE ON THE PROBLEM

You wake up in the morning, the alarm goes off! Then you go for your daily routine, brush, bath, shower. You gobble down a breakfast of eggs and hop onto a cab, taking you to work. You use your laptop, phone, fridge, chargers pretty much all day. Then you go back home, and open a cool can of soda, and sit back to a nice set on the telly. You then order a pizza for dinner and relish it in front of the TV. Last, you take a quick hot shower and go back to bed with the AC on, your phone and laptop charging nearby.

We all have similar lifestyles to this woman. Hectic, crazy and most importantly, very polluting. Every step you take costs the Earth a million breaths. We talk about climate change and afforestation and all, but do we really know what this means?

Team Xertia presents **Earth-X**, our cool application for the people of Earth. We shall ask you simple questions and analyse your lifestyle and calculate your carbon footprint for you. We shall also give you suggestions for improving your lifestyle. Moreover, we will be creating a leaderboard, of every person on earth, and you can compete to be the greenest individual alive! Lets bring about the Revolution, and save our Earth.

PREVIOUS WORKS

<https://www.nature.org/en-us/get-involved/how-to-help/consider-your-impact/carbon-calculator/>

https://www.ifu.com/en/umberto/lca-software/?gclid=Cj0KCQjwrrXtBRCKARIsAMbU6bFyMEH13_K4G-R7yRzPpcN88_k_9MLIJJaUBpRCipDiY-sypYsItI_EaAmfJEALw_wcB

<https://www.conservation.org/carbon-footprint-calculator>

WHY OUR SOLUTION?

None of these software integrate the movement and lifestyles of the users while calculating the footprint.

They do not suggest reformative measures to reduce the carbon footprint.

They have not been designed taking into account the modern generation and their time constraints.

They rely on monotonous data entry methods.

TECH STACK

Python

ML

Numpy

Pandas

Integration with google apis

Web dev [Html, css, mongoDB]

ASSIGNMENT OF DUTIES

Saloni Parekh -

Backend developer

Hrithvika Babar -

Front end developer

Priyal Belgamwar -

UI and back end developer

Aboli Marathe -

Back end developer and testing.

INTENDED APPROACH

- 1. Survey and Analysis-** To determine potential market and use of our product, we shall be carrying out surveys.
- 2. Planning-** The problem shall be considered from several angles, and we will analyse the best way to create the application.
- 3. Backend-** From the database to the algorithms, all the codes shall be open source and up for public benefit.
- 4. Front End-** Design of a very attractive user friendly application UI, along with features to enhance usability shall be provided.
- 5. Testing-** Shall be conducted in phases, for a variety of audiences.
- 6. Maintenance and Improvisation-** Based on the testing results, we shall be modifying our product, if needed.
- 7. Deployment-** Will be launched worldwide, in an attempt to save our planet!
- 8. Expansion-** We have various ideas in mind for expansion, once the basic product is launched and well received.

START

Survey and Analysis:

To determine potential market and use of our product, we shall be carrying out surveys.

Planning:

The problem shall be considered from several angles, and we will analyse the best way to create the application.

Back-end:

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Front-end:

Design of very attractive user friendly application UI, along with features to enhance usability shall be provided.

Testing:

Shall be conducted in phases, for a variety of audiences.

Maintenance and Improvisation:

Based on the testing results, we shall be modifying our product, if needed.

Deployment:

Will be launched worldwide, in an attempt to save our planet!

Expansion:

We have various ideas in mind for expansion, once the basic product is launched and well received.

END

REFERENCES

<https://www.footprintnetwork.org/our-work/climate-change/>
<https://www.wri.org/blog/2018/12/new-global-co2-emissions-numbers-are-they-re-not-good>

<https://www.nature.org/en-us/get-involved/how-to-help/consider-your-impact/carbon-calculator/>

https://www.ifu.com/en/umberto/lca-software/?gclid=Cj0KCQjwrrXtBRCKARIsAMbU6bFyMEH13_K4G-R7yRzPpcN88_k_9MLIJJaUBpRCipDiY-sypYsItI_EaAmfJEALw_wcB

<https://www.conservation.org/carbon-footprint-calculator>

<https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>