# The Problem

## subject research

### The Ozone Layer:

#### Cars emit greenhouse gasses, such as carbon dioxide, which contribute to global warming1. Global warming is caused by the ‘greenhouse effect’. The ‘greenhouse effect’ is the warming that happens when certain gases in Earth's atmosphere trap heat. These gases let in light but keep heat from escaping, like the glass walls of a greenhouse2.

### Transport Emissions:

#### Although there are a lot of different pollutants in the world, we decided to focus our efforts on a specific source to keep our project realistic. Transport was the obvious choice as “the majority of Britain’s [greenhouse gas emissions](https://www.independent.co.uk/topic/greenhouse-gas-emissions) now come from transport, according to new government figures”3.

### Global Warming and The North Pole:

#### Global warming is affecting the north pole, the permanent habitat of twenty-four different species, seven of which who are highly endangered. When your species has evolved over eons to live well in a year-round abundance of cold and ice, a warming world is really problematic. And climate change is heating up the Arctic at about twice the rate of regions farther south4.

### Target Market:

#### We thought about who we thought used their cars most frequently and what more environmentally friendly changes they could make. Commuters became a strong candidate due to the frequency and repetition of their journeys, we thought that if the route that the audience took was repetitive and towards large cities it was more likely for eco-friendly replacements such as public transport and cycling to be possible.

### Motivation:

#### We realised we would have to find some sort of motivation tactics aside from the general threat of global warming otherwise the target market may not want to make the effort. We knew we didn’t want to go down any kind of benefit or monetised incentive route, so we had to be creative with our methods. First, we thought of the personal benefits a new transport method could bring, for example for buses there are economic motives. We could work out how much petrol the normal route they take would be costing by multiplying the petrol they burn by the national average price-per-litre (the technicalities of how we will do this will be shown in the technical research document. A benefit to the cycling choice would be physical exercise which we could incentivise through calories burnt et cetera. Another slightly more aggressive technique we came up with was calculating the user’s carbon footprint and directly relating that to an animal’s life. For example, the app could say that this year, if the user continues to drive 5 miles to work every day their transport emissions alone would result in the melting of 10m2 of ice. This is obviously a different approach but one that we think removes the anonymity from the user’s impact upon the environment and brings it into perspective.

### References:

1. King, J. (2018). *How Does Car Pollution Affect the Environment & Ozone Layer?*. [online] Homeguides.sfgate.com. Available at: https://homeguides.sfgate.com/car-pollution-affect-environment-ozone-layer-79358.html [Accessed 3 Nov. 2018].
2. Nationalgeographic.com. (2018). *What Is Global Warming?*. [online] Available at: https://www.nationalgeographic.com/environment/global-warming/global-warming-overview/ [Accessed 3 Nov. 2018].
3. The Independent. (2018). *Transport is UK's most polluting sector as greenhouse gas emissions fall*. [online] Available at: https://www.independent.co.uk/environment/air-pollution-uk-transport-most-polluting-sector-greenhouse-gas-emissions-drop-carbon-dioxide-a8196866.html [Accessed 3 Nov. 2018].
4. Gertz, E. (2018). *These 7 Arctic Animals Are Most at Risk From Climate Change*. [online] TakePart. Available at: http://www.takepart.com/photos/seven-arctic-animals-risk-climate-change/ [Accessed 4 Nov. 2018].