



SUSTAINABLE TRANSPORT

CIRO PROJECT

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ABSTRACT

PROJECT OBJETIVE



for Huelva to be a sustainable city based on hydrogen as a source of energy and fuel

MAIN POLLUTION PROBLEM:



transportation



PROPOSAL OF SOLUTIONS TO REDUCE POLLUTION

OFFER THE FINAL CONCLUSION

INTRODUCTION

POLLUTION



Effects

Greenhouse effect

Depletion of the ozone layer

Caused by:

The increase of CO₂ in the atmosphere causes the temperature of the Earth to rise and creates serious problems for humanity.

To stop the greenhouse effect you have to:

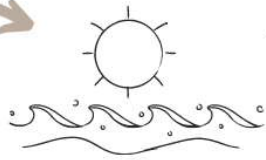
- Increase the use of vehicles that use biofuels such as biodiesel or ethanol.
- Orient the market to use energy efficient vehicles
- Improve methods of transportation

ENVIRONMENTAL BACKGROUND

GEOGRAPHY

Plain + hills

Huelva is located
in
Andalusia,
in the
southwest of
Spain



122 kilometers
of beach



19.2°C
3000 hours
of sunshine



Rainfall
is scarce



143,837



Second
Andalusian province
in terms of GDP

main incomes



traffic



pollution

chemical pole

Detailed description and objectives



Transportation is necessary
in our daily routine



changing the type of
transportation will help to improve the quality
of the environment and reduce pollution



Our solution...

is the replacement of roads
with lanes for

bicycles

electric scooters

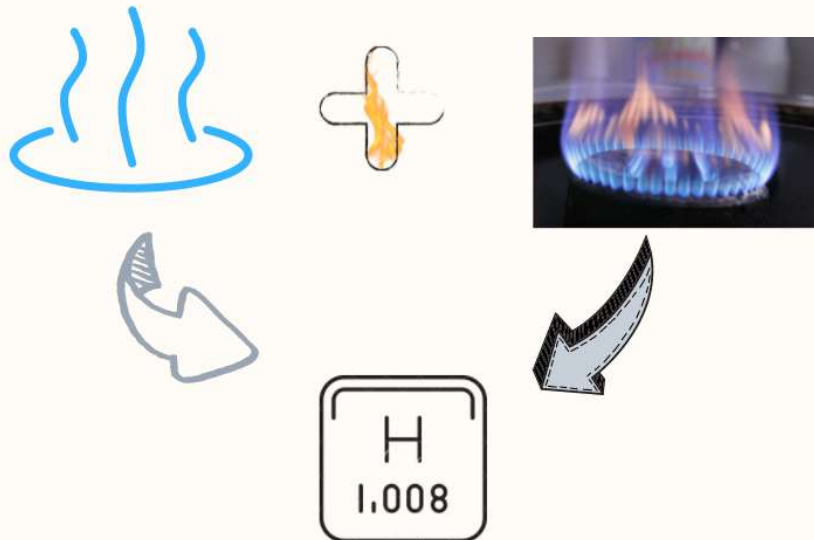


the goal is...

allow people to move around
the city smoothly in their
new types of transportation

Hydrogen

Electrolysis



Types of hydrogen

Blue

Green



Gray



Transport

hydrogen = fuel + **water**



Hydropower plants



Parking with shuttles

Where are they?



At the entrances of the city

In Huelva



1. Use of car parks
2. Take a shuttle

No private vehicles are allowed



Vehicles that use hydrogen or electric batteries



FREE SHUTTLES



These shuttles would also be connected to the nearest towns



Benefits?



Less pollution



Citizens would not have to worry about their own transportation

Green shared mobility system



Advantages

Reduce carbon
dioxide
emissions

No noise

Energically
efficient

How does it work?

With a mobile app



Innovative aspects

A clean city

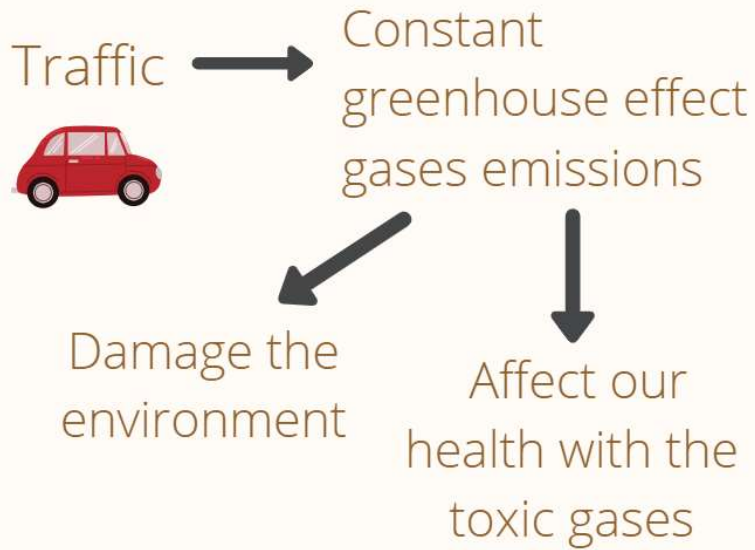
A much more ecological one



Hydrogen as a new energy
source



Conclusion



To achieve our goal, we must work hard, come up with new ideas with the same purpose and raise awareness among citizens.



Solutions for pollution in Huelva



- Substitution of lanes
- Creation of a parking lot with shuttles
- renting mobility system