



#### FAMILY

Intro

### **EARTH**



I wanted to understand what impact my family has on the planet and what actions I might take to change it for the better.

I decided to see what I could find online to help answer this question. I put all the data and calculations in a spreadsheet which you can find at the end.

Once I had identified the challenges I then wanted to use the innovation process to find solutions for the future...

I also wanted to understand how my consumption related to the rest of the planet.

I used online sources to compare my own use and decided to present them side by side.

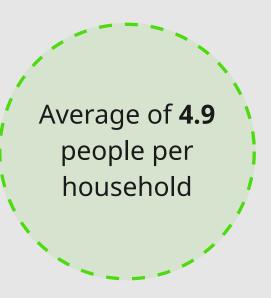
The results are shown in the slides below

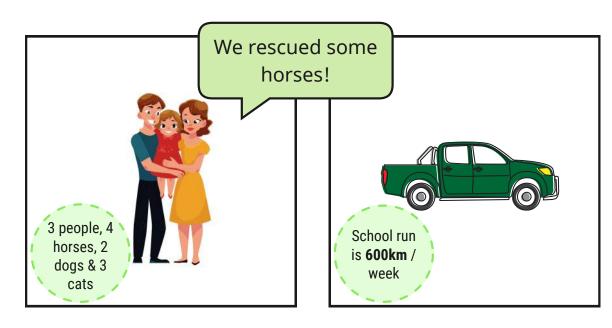


FAMILY

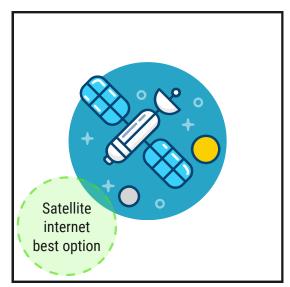


**EARTH** 









7.9 BILLION PEOPLE ON THE PLANET

4.5 BILLION LITRES WATER WILL BE USED IN 2022

5.3 **BILLION USERS** OF THE INTERNET 36.4 BILLION TONS CO2 WILL BE MADE IN 2022

DATA ACCURATE AS OF PUBLISHED DATE 18/04/2022

## EACH MONTH

My family requires 1.1MWh for our home

FAMILY

**Energy** used & cost

**EARTH** 

Globally we generate **13.2**TWh

EACH MONTH









**25**kg CO2 emitted supply is hydro & nuclear

**€215** / mth family total spend on home energy

**15**% **OF ENERGY COMES** FROM RENEWABLES

47,526 TWH SOLAR ENERGY FALLING ON LAND EACH DAY

The **poorest 20%** of the UK still consume more than **5 times** as much energy per person as the **bottom** 84% in India, a group of about a billion people.

4-6% OF GLOBAL ELECTRICITY TO RUN THE INTERNET

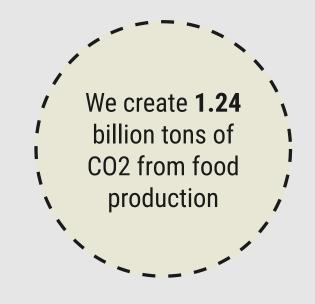
What's the cost of global energy supply?

## EACH MONTH

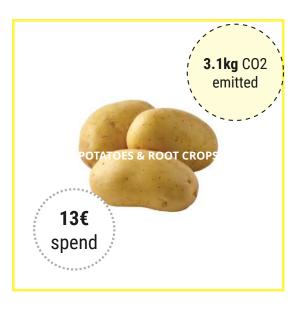


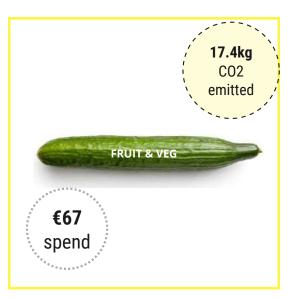
Food production emissions

#### **EARTH**

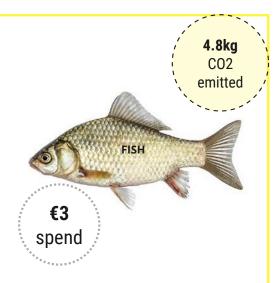


### EACH MONTH











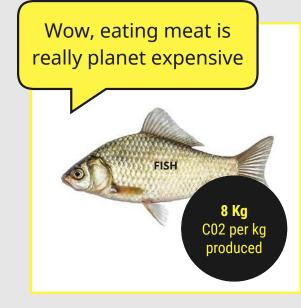


**€336** / mth family total spend on food









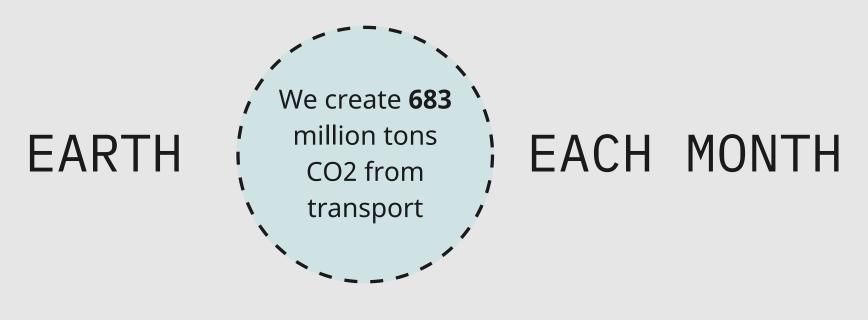


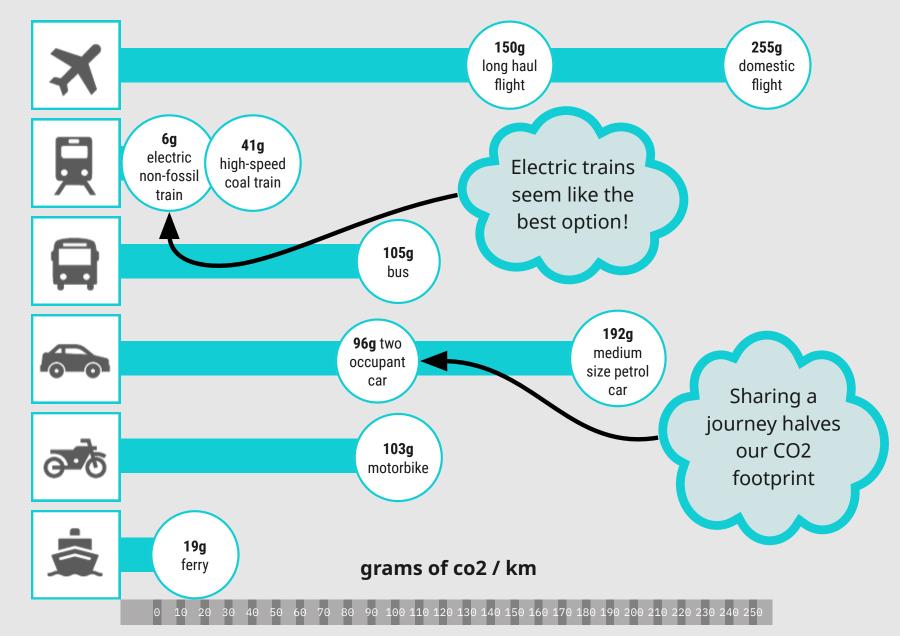


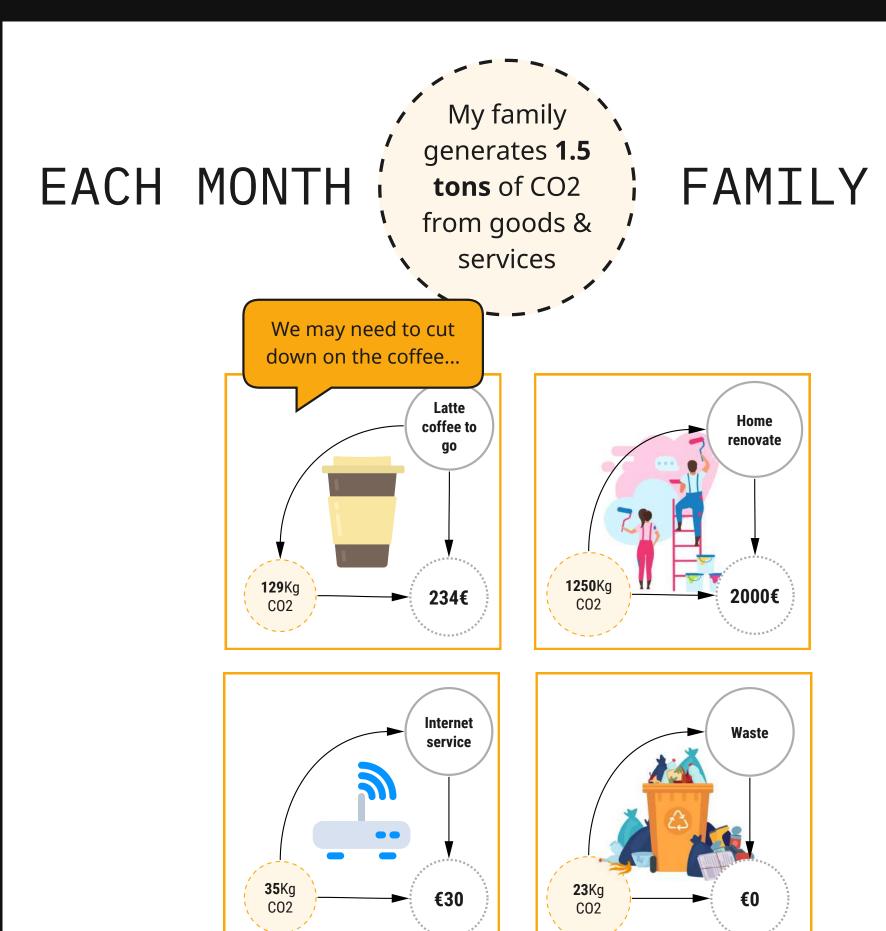
**€8.6B** / mth spent on food in EU in 2021

#### My family **Mobility** generates EACH MONTH **FAMILY** cost & **554kg** of CO2 emissions from transport 150g long haul flight 1 flight a year for the family 具 120 km farm vehicle & round trip school run shopping **97g** 2 or 3 passenger truck 0 grams of co2 / km **€589** / mth

family total spend on mobility & transport







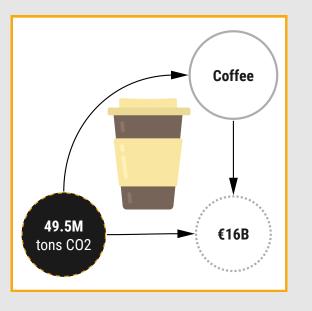
**€2,821** / mth family total spend on goods & services

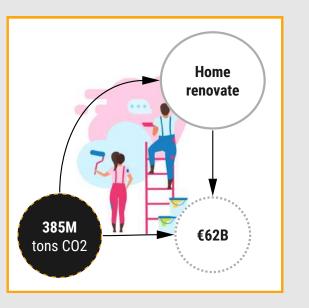
Goods & services costs & emissions

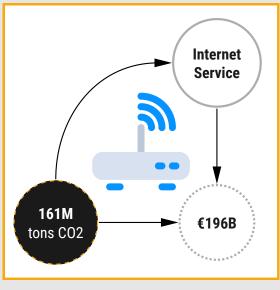
**EARTH** 

We generate 445 Million Tons CO2 from goods & services

#### EACH MONTH









> **€286B** / mth spent on these goods & services



VS



If we assume that all Earth's resources were shared equally between every person on the planet

Maria's consumption ran out on **April 10th 2022** 









Click here to try this yourself

If we assume that all Earth's resources were shared equally between every person on the planet

> Planet Earth ran out on July 29 in 2021





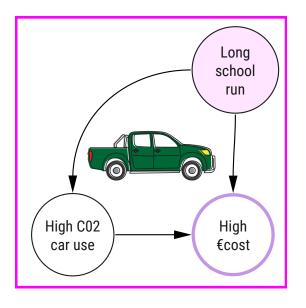
Maria's consumption requires: 3.6 Earths

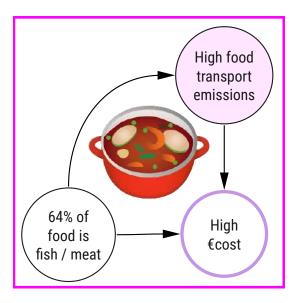
The world as a whole requires: 1.7 Earths

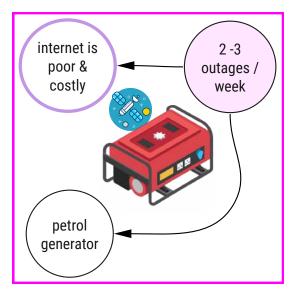
### MARIA'S FAMILY

What are the energy problems?

#### **PLANET**









1.4 **BILLION BARRELS OF OIL** LEFT 41 YEARS LEFT

4.3 **BILLION BARRELS OF EQUIVALENT COAL** 133 YEARS LEFT

The US military emits more than the whole of Sweden. Its emissions account for 1.2 Billion tons - the same as the annual use of 257 million passenger cars

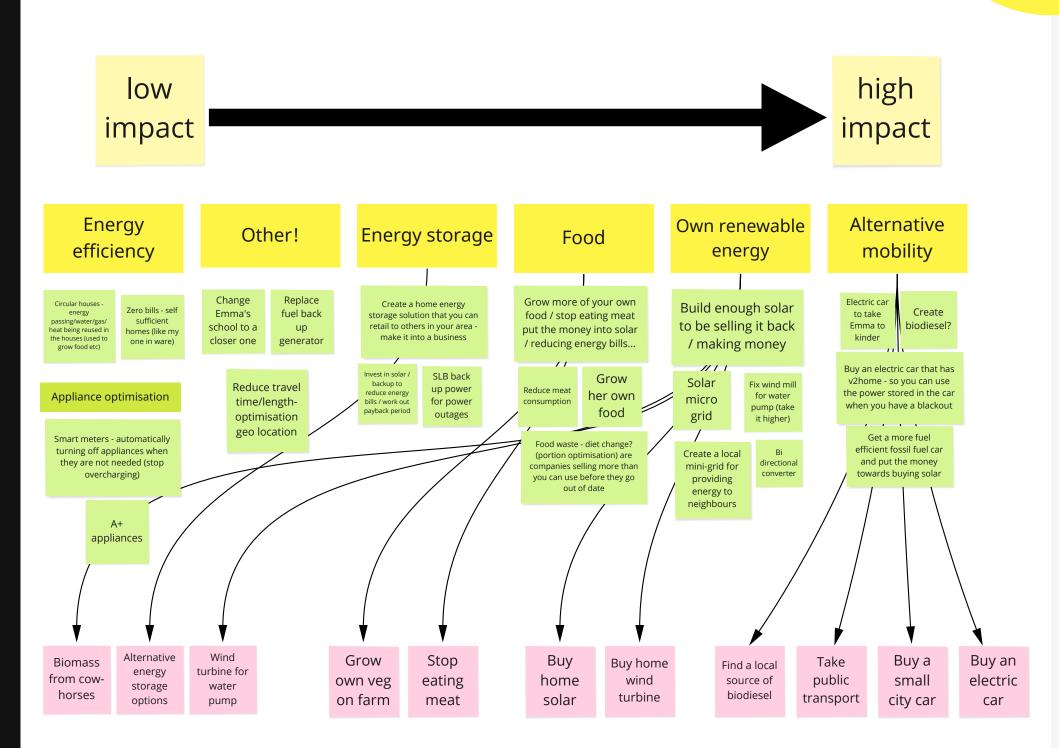
1.1 **BILLION BARRELS OF EQUIVALENT GAS LEFT 52 YEARS LEFT** 

Use of finite resources

#### MARIA'S FAMILY

How might we solve them?

#### PLANET



**POTENTIAL SOLUTIONS** 

Stop using finite resources

**Transition to** net zero solutions

Develop solutions to reverse human impact

Take personal responsibility for the planet

### MARIA'S FAMILY

low

impact

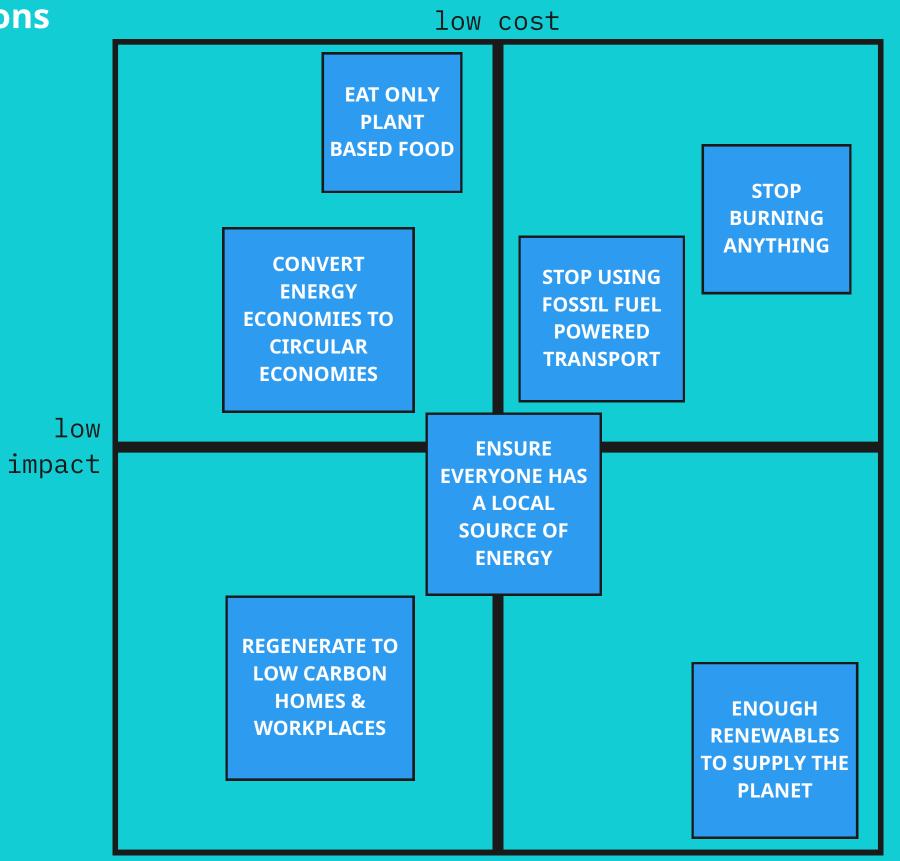
low cost

**BIODIESEL / USED COOKING GROW OWN FOOD / BUY LESS** Saves **€48.4** / mth Save **€200** / mth Saves 47.36Kg C02 / mth WIND POWERED WATER PUMP Save 600Kg CO2/mth Time to implement - 1 month Time to implement - 3 months Upfront cost est: €20/mth Saves **€11.10**/mth Upfront cost est: €50/mth Saves 1.2Kg CO2/mth Time to implement - 2 months Upfront cost est: **BATTERIES FOR BACK UP** Saves **€66.6**/mth Saves 7.4Kg CO2/mth Time to implement - 3 months Upfront cost est: €500 **SMALL CAR / SHARING SOLAR WATER HEATING** Saves €175 / mth high Saves **€48.69**/mth Saves 200Kg CO2 / mth Saves 5.2Kg CO2/mth Time to implement - 1.5 impact Time to implement - 1 months months Upfront cost est: €750 **SOLAR PANELS** Upfront cost est: €100 / mth Saves **€66.6**/mth Saves 7.4Kg CO2/mth Time to implement - 3 months Upfront cost est: €100/1.5 mth **SOLAR FARM** Generates x / mth Saves x CO2/mth Time to implement - 3 years Upfront cost est: €30k

high cost

Let's rank the solutions

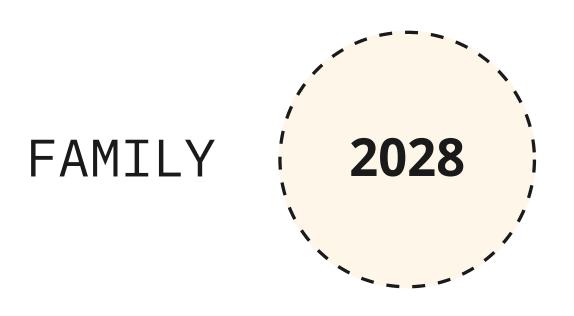
#### **PLANET**



high cost

high

impact

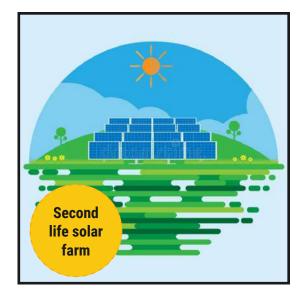


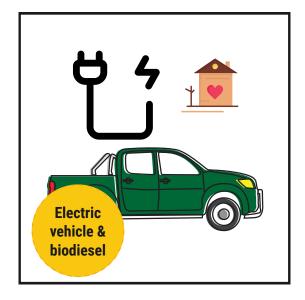




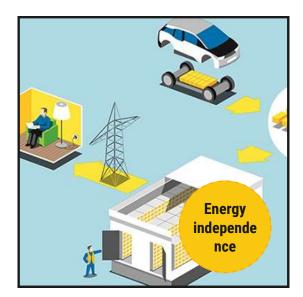










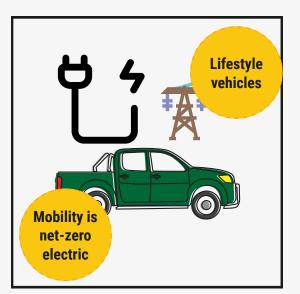


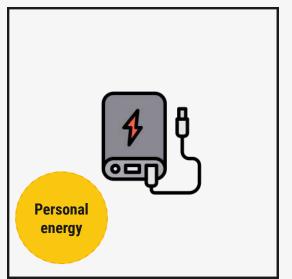


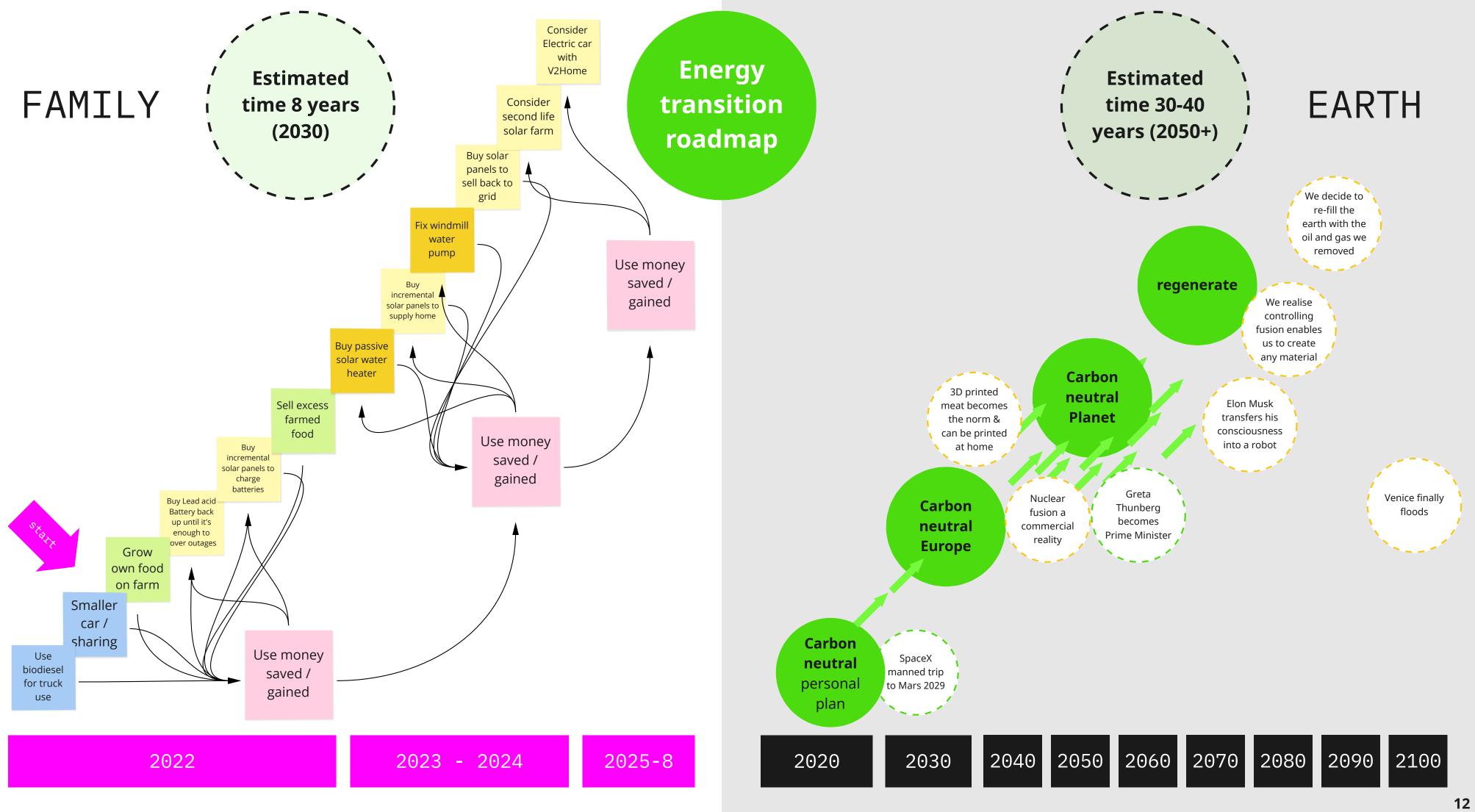












## THANK YOU!



# TRY IT YOURSELF

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REFERENCES & CALCULATIONS



