

**#Climathon**



# AUTH on the Go!

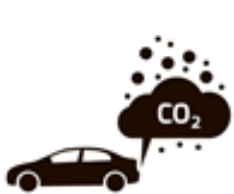
Thessaloniki | November 2021

# Current Situation

## Emissions CO<sub>2</sub>:

- Greece

5.01 ton/year/person (2020)



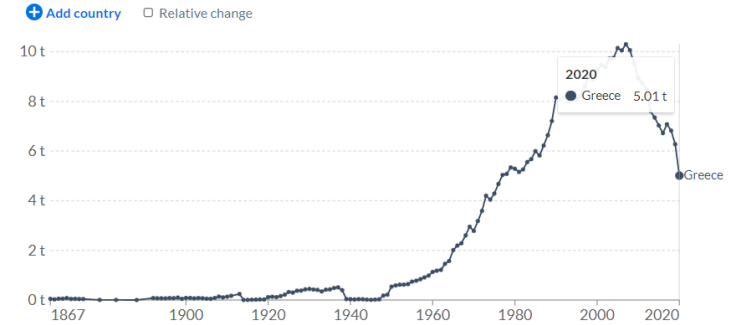
25% (2014)

1.25 ton/year/person

## Per capita CO<sub>2</sub> emissions

Carbon dioxide (CO<sub>2</sub>) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

Our World  
in Data



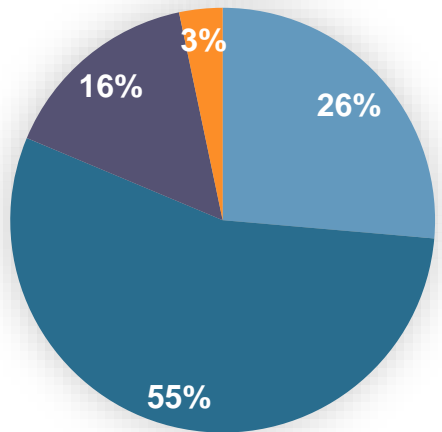
Source: Our World in Data based on the Global Carbon Project    OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY  
Note: CO<sub>2</sub> emissions are measured on a production basis, meaning they do not adjust for emissions embedded in traded goods.

## CO<sub>2</sub> emissions from transport (% of total fuel combustion) - Greece

IEA Statistics © OECD/IEA 2014 ( [iea.org/stats/index.asp](http://iea.org/stats/index.asp) ), subject to [iea.org/t&c/termsandconditions](http://iea.org/t&c/termsandconditions)  
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# Students' transportation





- By Foot
- By Bus
- By car/motorcycle/taxi
- Other way (bike, scooter etc)

- **Aristotle University of Thessaloniki (AUTH) :**

- Total Students: 79.434
- Active Students: 44.491

Estimation of average CO<sub>2</sub> emissions in Greece.

\*(tons/year)

32.000 students		40.000
25.000 students		31.250
1 college student		1,25

# Lost time due to traffic jam

130

WORLD RANK  
2019

CONGESTION LEVEL 2019

How congested was Thessaloniki?

30%

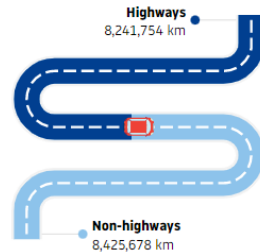
↑ 2%p

increase since 2018

DATA COVERAGE

How much road data did we cover?

16,667,432 km



CONGESTION LEVEL BY ROAD  
TYPE

Highways

10%

Non-highways

36%

TIME LOST IN RUSH HOUR - PER TRIP

How much extra time was spent driving in rush hour?



+13 min

per 30 min trip  
in the morning

+13 min

per 30 min trip  
in the evening



TIME LOST IN RUSH HOUR - PER YEAR

How much extra time was spent driving in rush hours over the year?

98 hours = 4 days, 2 hours

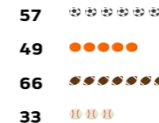


How many times could  
you have listened to  
"Imagine" by John  
Lennon?

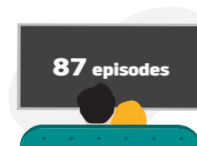


1896  
times

How many sports  
matches could you have  
watched?



How many "Game of  
Thrones" episodes could  
you have watched?



87 episodes

How many 500-piece  
jigsaw puzzles could you  
have completed?



20  
jigsaw  
puzzles

# Our idea

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At an early stage we suggest:

- 1) Buying 100 electric scooters only for the students.
- 2) Installing Charging Stations thanks to Photovoltaics
- 3) Photovoltaics attached to the Electric Means of Transport as an additional charging way.

# Parking Spaces



- **Central Charging Station in AUTH.**
- **External Charging Stations at different places in Thessaloniki.**



# Charging Stations



- Installing charging station at different places in Thessaloniki.

- Installing raised panels at the parking lot in AUTH.



# The motivation

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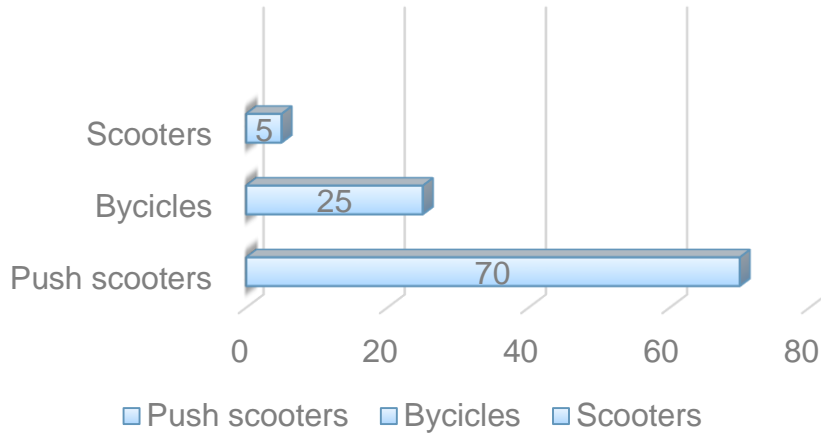


1. Free, easy and fast movement.
2. Students will have access to an app via their personal student account (app will give information about the location of charging stations & available means of transports such as electric scooters).
3. Counting km/person through the app and rewarding the students by taking part in conferences, seminars and theatrical performances with no cost in AUTH.
4. Make University more competitive and improving its image.
5. Insert “Green” transportation in the students’ daily life.



# Cost estimation

Number of e-vehicles.



- Electric vehicles: 30.000-40.000€
- Photovoltaic & Stations : 40.000-50.000€
- Maintenance: 2.000-3.000 €/y

**Total Cost : 72.000-93.000 €**

# Funding Sources

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## Potential Sources:

### ☐ European

- EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY
- EUROPEAN COMMISSION DIRECTORATE GENERAL FOR EDUCATION, YOUTH, SPORT AND CULTURE

### ☐ The Government

- Subsidy Programs

### ☐ Others

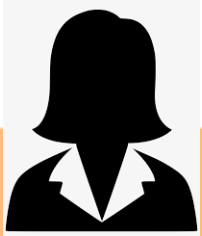
- Onassis Foundation
- Laskaridi Foundation

# Bibliography

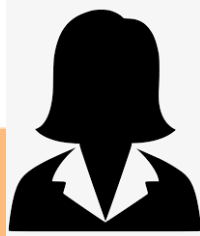
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- [https://el.wikipedia.org/wiki/%CE%91%CF%81%CE%B9%CF%83%CF%84%CE%BF%CF%84%CE%AD%CE%BB%CE%B5%CE%B9%CE%BF\\_%CE%A0%CE%B1%CE%BD%CE%B5%CF%80%CE%B9%CF%83%CF%84%CE%AE%CE%BC%CE%B9%CE%BF\\_%CE%98%CE%B5%CF%83%CF%83%CE%B1%CE%BB%CE%BF%CE%BD%CE%AF%CE%BA%CE%B7%CF%82](https://el.wikipedia.org/wiki/%CE%91%CF%81%CE%B9%CF%83%CF%84%CE%BF%CF%84%CE%AD%CE%BB%CE%B5%CE%B9%CE%BF_%CE%A0%CE%B1%CE%BD%CE%B5%CF%80%CE%B9%CF%83%CF%84%CE%AE%CE%BC%CE%B9%CE%BF_%CE%98%CE%B5%CF%83%CF%83%CE%B1%CE%BB%CE%BF%CE%BD%CE%AF%CE%BA%CE%B7%CF%82)
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- [https://www.tomtom.com/en\\_gb/traffic-index/thessaloniki-traffic/](https://www.tomtom.com/en_gb/traffic-index/thessaloniki-traffic/)
- <https://environmentamerica.org/energy-101/campus-solar-energy>
- <https://www.rc.auth.gr/marketing/funding.shtml>

# Who are we?



**Natsiopoulou Maria**  
Civil Engineer



**Karamanoli Eleni**  
Civil Engineer



**Giouros Dimosthenis-Sumeon**  
Civil Engineer

Thank you for your attention!