

# Campus-Leaf: a mobile app to live your campus in an environmentally sustainable way



by **Eco-Logic:**

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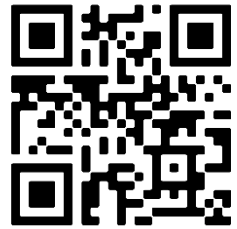


**SAPIENZA**  
UNIVERSITÀ DI ROMA



Our project's purpose is **to reduce CO2** emissions with the help of the student community.

We intend to do that by **launching an app** that keeps score of every CO2 reducing task accomplished by the students



To keep track of the task accomplished, all of them will be linked with the scanning of an apposite QR Code

*Campus-Leaf*

Starting by **filling in a survey**, every student will be assigned to an ecological rank, based on his/her daily habits

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## How Green are you ?

It doesn't matter where you start, think like a plant and help to reduce carbon emissions.

Exam passed! Will you recycle your notes?

Your answer

Do you have a water bottle?

☐ Of course!

☐ Ops, no...

How do you usually reach the campus?

Every task is divided into **set points**.  
Once the student reaches a set point,  
an amount of **points** is given.

By **accumulating** a certain amount of  
**points** the student will get the possibility  
**to plant a tree**, thus reducing CO<sub>2</sub>  
emissions even more!



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## Reuse your Cellulose

Don't waste your waste: the **paper** you get rid of today, might be the life saving note of another student. Give that **tree** a chance to save another university colleague and recycle!

## Bio-Break

Eating healthy and reducing your CO<sub>2</sub> at the same time? It's possible by taking your break at the **fruit** vending machine. If you want to achieve some points, don't forget to scan the QR code and use the apposite organic **disposal**!

## Eco Mode

Did you know that the CO<sub>2</sub> production linked to approximately one hour and a half of scrolling your **social media** equals that generated by taking your car for a 1km ride?

Put your phone on **Eco Mode** and interact with your colleagues, get to know each other better while gaining a lot of points!

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## Campus-Leaf



## Travel Green

Reduce your emissions while traveling towards your campus! Instead of using your car, based on how far you live, choose your **bike** or take the **bus**. Don't forget to keep up your streaks: the greener you travel, the more points you gain!

## Re-Leaf

Drinking **water** has never been easier, just refill your water bottle at the apposite **filling station**, scan the QR code and add it up to your points!

## No CAR<sub>(bon dioxide)</sub> day

Leave your **car**<sub>(bon dioxide)</sub> at home for an entire day and choose to travel as green as you can!

## Plant Care

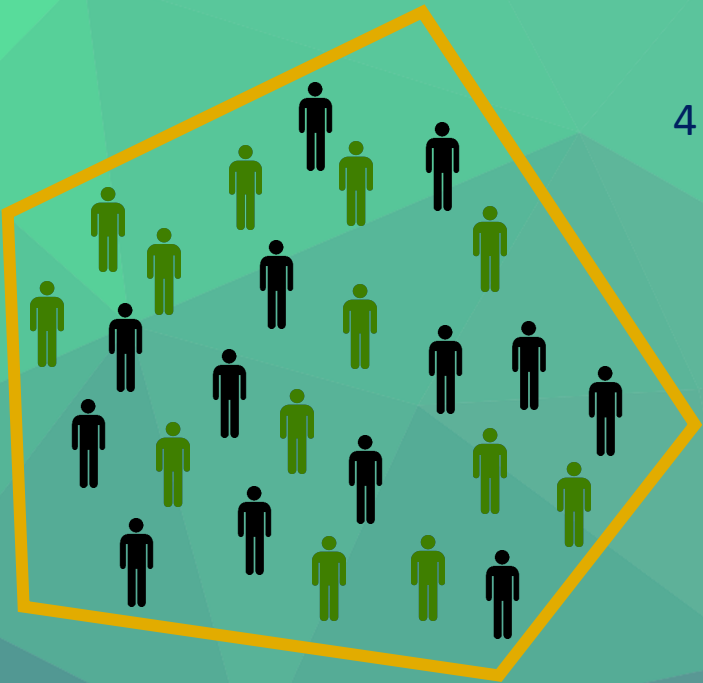
Once your **plant** is planted, look after it and don't forget to take **pictures** along the way: caring for your green one will allow you to keep achieving points.

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We considered a **community of 50.000 students**  
(The mean value of students per single CIVIS university)

Student community involvement: 50%



4 trees x 25 000 students x 3000 kg  
in CO<sub>2</sub> 20 years =  
**300 000 000 kg of CO<sub>2</sub> absorbed**

Plants (Trees)	CO <sub>2</sub> absorbed	Height	Longevity
<i>Acer platanoides</i>	3800 kg in CO <sub>2</sub> 20 years	20 m	200 years
<i>Tilia platyphyllos</i>	2800 kg in CO <sub>2</sub> 20 years	15/20 m	1000 years
<i>Fraxinus excelsior</i>	2800 kg in CO <sub>2</sub> 20 years	8/40 m	250 years
<i>Quercus cerris</i>	3100 kg in CO <sub>2</sub> 20 years	35 m	200 years
<i>Betulla pendula</i>	3100 kg in CO <sub>2</sub> 20 years	30 m	100 years

Every CIVIS campus will be able to choose **plants** that are better adapted to the **local environment** and climate conditions, planting **autochthonous** species will allow to increase local biodiversity too.

Every campus, but especially those that do not have many green spaces, could install **green walls** over buildings for smaller species and make deals with **local partners** to plant trees all over the city. In this way universities will be able to gain new space to plant **different species** and **reduce emissions** even more.



- By encouraging students to use more sustainable means of **transport** it could be possible to reduce **17,8 tons** of CO<sub>2</sub> every year. For example, students living in a range of 10km from the campus could use the **bike**, while students who live farther could use **trains** and **public transport**.
- Spending **less time on the internet** while it is not necessary will help campuses to reduce **electricity** use, and up to **4,3 tons** of CO<sub>2</sub> every year. Meanwhile students will discover again how pleasant it is to have a good conversation or to read a beautiful book.
- Notes, prints and notebooks: every exam requires a big amount of **paper**, **recycling** these materials, giving them a new life could help to reduce up to **57,6 tons** of carbon every year.
- It is clear that plastic is a big problem, but this is not the point. Choosing **tap water** instead of plastic bottles allows to save **32,4 tons** of CO<sub>2</sub> every year. Having a **water bottle** is a must.



The **financial expenses** for this project could be covered by making agreements with environmental associations (such as Ecosia and Treedom) or by establishing new sponsor partnerships



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# Sitography:

- <https://www.coldiretti.it/ambiente-e-sviluppo-sostenibile/piante-mangia-smog>
- <https://www.sistemiamolitalia.it/un-albero-per-produrre-16-risme-di-fogli/#:~:text=24%20alberi%20per%20produrre%201%20tonnellata%20di%20risme%20di%20carta,contiene%20500%20fogli%20di%20carta.>
- <http://www.risparmiare-energia.com/quanto-consuma-caricare-il-cellulare-smartphone-in-carica/#:~:text=Un%20tipico%20caricabatterie%20per%20telefono,0%2C014%20kWh%20di%20energia%20elettrica.>
- [https://www.sunearthtools.com/it/tools/CO2-emissions-calculator.php#txtCO2\\_7](https://www.sunearthtools.com/it/tools/CO2-emissions-calculator.php#txtCO2_7)
- <https://theshiftproject.org/wp-content/uploads/2019/07/2019-02.pdf>
- <https://energy.lifegate.it/blog-gas-e-luce/co2/>
- PES Piano strategico energetico-ambientale di Sapienza (2017-2030), 2017, Sapienza Università di Roma
- S. Botto “Tap water vs. bottled water in a Footprint Integrated approach”

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