

Guide: Calculating the carbon footprint in the classroom

This guide presents

- *The context of the program developed at the Green Office ULiège (Belgium)*
- *The PowerPoint support to use in class to calculate the individual carbon footprint with students*




**Let's calculate our
ECOLOGICAL FOOTPRINT**

AT THE INITIATIVE OF
**UNI
FOR CHANGE**

Let's discover our impact on the planet

1 Context

1.1 UNI for Change: A pioneering program at ULiège

 The Green Office of the University of Liège is developing a pioneering program to engage members of the ULiège community (students and staff) to reduce their individual carbon footprint. L'objectif d'ici 2030 s'aligne sur l'objectif de l'Accord de Paris : une réduction de 50 % de l'empreinte individuelle, pour l'ensemble de la communauté.

This ambitious [commitment program](#) is structured around 6 pillars:

1. **Raising awareness** to raise awareness of sustainable development issues, the objectives of the 2030 Global Agenda and the components of our carbon footprint ([conferences](#), [workshops and training](#))
2. **Integration** to mobilize student leadership at the heart of the project
3. **The imagination** to dream of our sustainable territory and arouse the desire to take part in its construction
4. **Action** with proposed [challenges](#) in favor of climate and biodiversity, offered on an [online collaborative platform](#) that brings together our community
5. **Communication** to encourage the mobilization of a large community on each campus
6. **Hope** is at the heart of the program because it is a positive and inspiring energy that is amplified in action that brings change.

In June 2021, this innovative program was the [winner of the UN Campus 2030 competition](#) (680 projects on the starting line). Following this recognition, many establishments contacted the ULiège Green Office in order to replicate the program on their campus. This is how sharing begins.

1.2 Sharing the program in 2 phases

The objective of UNI for Change is also to effectively replicate the engagement program in higher education establishments in the Wallonia-Brussels Federation and at the same time with a few partners in Flanders and outside Belgium who wish to develop the program with their students.

The strategy consists of **sharing a toolbox** - a set of advice and concrete examples presented in the form of fact sheets, short videos and links to scientific and educational references - **on an exchange platform** (arriving in February 2024) to allow the sharing and enrichment of content between the 17 current partners of the project.

In Belgium, potentially 500,000 students are targeted in higher education thanks to dissemination via sustainable development networks.

Internationally, distribution will be carried out via the following networks: AUF, AIU, ISCN, SDSN, UNI-C and the Green Office Movement.


2 A first success during the carbon footprint calculation in spring and autumn 2022!

In total, via UNI for Change, **2743 participants** calculated their carbon footprint in the Wallonia-Brussels Federation and their cumulative commitments amount to 5224 tonnes of CO2 eq avoided!

3 Animation concretely

The ULiège Green Office has prepared a 25 to 30 minute animation around calculation via a short 9 slide PowerPoint:

1. Introduction
2. Understand to act
3. Environmental and carbon footprint
4. A way to gradually reduce greenhouse gases
5. Become aware of your impact on the climate
6. What actions?
7. It's up to you!
8. Thank you

 <p>Let's calculate our ECOLOGICAL FOOTPRINT</p> <p>AT THE INITIATIVE OF UNI CHANGE</p> <p>Let's discover our impact on the planet</p>	<p><i>Madam Professor, Mr. Professor, we suggest that you take inspiration from the following text to comment on the slides:</i></p> <hr/> <p>Today, I suggest you take a few minutes from the course to calculate your individual ecological footprint. I will do it at the same time as you.</p> <p>This approach is offered by the UNI for Change in many courses and even in other Universities and High Schools in the world. What we are going to do today is therefore part of a collective approach that aims to reduce the greenhouse gas emissions of student communities by 50% by 2030.</p>
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WHAT IS OUR IMPACT ON THE PLANET AND THE CLIMATE?



THIS DYNAMIC IS SUPPORTED BY

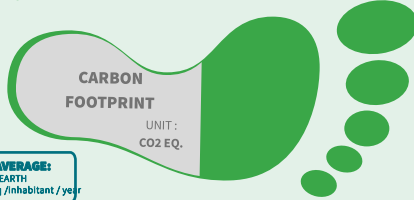
How will this unfold?

The first step to being able to change something is to understand it well.

We will see together what the ecological footprint is and everyone will calculate their own. Then, everyone will be able to choose actions that they are ready to put in place to reduce their ecological footprint.

ECOLOGICAL FOOTPRINT

UNIT: NUMBER OF EARTH
HOW MANY PLANETS DO WE NEED IF EVERYONE LIVES LIKE YOU?



WORLD AVERAGE:
1.75 EARTH
~6 tons CO2 eq./inhabitant/year

The **ecological footprint** is an indicator that **represents our impact on**

the planet: what we need to produce our food, to build our infrastructures and to absorb our waste. It is calculated as

the number of Earth needed if everybody has the same lifestyle as you.

The Belgium average is 4.34 Earths. The Qatar lifestyle corresponds to 9.02 Earths, the United-States lifestyle corresponds to 5.13 Earths. Even the world average is above the renewable capacity of Earth with 1.75 Earths!

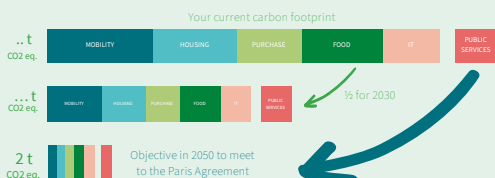
The carbon footprint is a part of the ecological footprint, around 50 %.

The **INDIVIDUAL** carbon footprint is the **quantity of greenhouse gases** whose emission is linked to all of a person's consumption of goods and services.

The unit of measurement for the carbon footprint is the **CO2 equivalent**. Why equivalent? For simplicity, we use a single standard related to CO2 for all greenhouse gases.



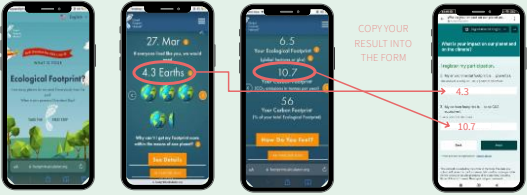
You can observe that the **average carbon footprint in the world is around 6 tons per capita per year.**

A WAY TO GRADUALLY REDUCE our greenhouse gas emissions



The carbon footprint composed of **an individual part** and a common part related to public services (such as hospitals, schools, roads, water treatment).

The individual part is made up of different areas: housing, mobility, food, purchasing and digital. It is this part that we are going to calculate today. It is important to **gradually reduce this footprint by 2050**. It is then proposed to reduce by 50% by 2030 and then to arrive at 2t per year in 2050. Step by step, small changes combined with national and international decisions, together we will get there.

<p>REALIZE YOUR IMPACT ON THE PLANET</p> <p>1 CALCULATE YOUR CARBON FOOTPRINT</p> <p>2 TAKE ACTION!</p> 	<p>The activity will take place in 2 stages:</p> <p>You will first calculate your ecological footprint via an online calculator.</p> <p>You can then, via a form, register your participation and choose the first actions to reduce your impact on the planet.</p>
<p>WHAT ACTIONS?</p> <p>GO ON HOLIDAY BY TRAIN</p> <p>EXPLORE ALTERNATIVES TO THE PRIVATE CAR</p> <p>HAVE A MEAT FREE DAY</p> <p>COOL/HEAT YOUR HOME SPARINGLY</p> <p>FAVOR SECOND-HAND PURCHASES</p> <p>More actions here https://www.anatomyofaction.org/</p>	<p>Regarding the actions you can choose, here are 5 that have the most impact. By implementing some of these actions in your daily life, you can significantly reduce it.</p> <ul style="list-style-type: none"> • Go on vacation by train rather than by plane as soon as possible • Explore alternatives to individual cars for your daily journeys. Using public transport or cycling will also benefit your health and your wallet. • Have a meat free day once a week • Cool or heat your home sparingly. • Promote second-hand purchases for your clothes, your electronic devices and any other everyday object. Once again, in addition to being good for the planet, your wallet will see the difference.
<p>UP TO YOU !</p>  <p>https://forms.office.com/e/42Jayaw4XK</p>  <p>COPY YOUR RESULT INTO THE FORM</p>	<p>The QR code will send you to a form where you can</p> <ol style="list-style-type: none"> 1. calculate your ecological footprint 2. save your result and choose your actions <p>It is advisable to choose 1 to 3 actions so as not to embark on too many changes at the same time</p> <p>Let's go, take out your smartphones. I do it at the same time as you. We will leave a few minutes of calm to complete the form.</p> <p><i>Ask for a show of hands, and allow extra time if needed:</i></p> <p>Who has finished calculating their ecological footprint?</p> <p>Who completed the form?</p> <p>Go to the end of the form by clicking on "submit" so that your participation is well recorded.</p> <p>It is important to register your participation to raise the [YOUR ESTABLISHMENT] counter!</p>

**Thank you for
your participation !**



Congratulations on completing your ecological footprint!
You join the growing community of members of our university who are committed to a more sustainable way of life!

Dear teacher, thank you for sharing these slides with your students!

For any questions, do not hesitate to send an email to sarah.robinet@uliege.be

Madam, Sir, we thank you in advance for your support.

For any questions do not hesitate to contact us.

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