

# Guide: Calculating the carbon footprint in the classroom

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*This guide presents*

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



## 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. The goal by 2030 aligns with the goal of the Paris Agreement: a 50% reduction in the individual footprint, for the entire community.

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 2022 at ULiège!


During the first edition of the carbon footprint calculation in spring 2022, more than 800 students carried out the activity at ULiège.






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:


Here is a **25-to-30-minute animation** via PowerPoint:

- 1 Introduction
- 2 Understand to act
- 3 Carbon footprint
- 4 A way to gradually reduce greenhouse gases
- 5 Know your impact on the climate
- 6 What actions?
- 7 Up to you !
- 8 THANKS !

 <p>Let's calculate our <b>CARBON FOOTPRINT</b></p> <p>AT THE INITIATIVE OF <b>UNI</b> FOR CHANGE</p> <p>Let's discover our impact on the climate</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 carbon footprint. I will do it at the same time as you.</p> <p>This approach is offered by the <b>UNI for Change</b> 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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<p><b>WHAT IS OUR IMPACT ON THE PLANET AND THE CLIMATE?</b></p> <p>UNDERSTAND TO ACT</p>  <p><small>THIS DYNAMIC IS SUPPORTED BY</small></p> 	<p><b>How will this unfold?</b></p> <p>The first step to being able to change something is to understand it well.</p> <p>We will see together what the carbon 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 carbon footprint.</p>
<p><b>CARBON FOOTPRINT</b></p> <p>WHERE ARE GREENHOUSE GASES HIDDEN IN OUR DAILY LIVES?</p> <p>UNIT: CO2 EQ.</p>  <p><b>WORLD AVERAGE:</b> -6 tonnes CO2 eq /inhabitant / year</p>	<p>The <b>INDIVIDUAL</b> carbon footprint is the <b>quantity of greenhouse gases</b> whose emission is linked to all of a person's consumption of goods and services.</p> <p>The unit of measurement for the carbon footprint is the <b>CO2 equivalent</b>. Why equivalent? For simplicity, we use a single standard related to CO2 for all greenhouse gases.</p> <p>You can observe that the <b>average carbon footprint in the world is around 6 tons per capita per year</b>. However, the <b>average [YOUR COUNTRY] carbon footprint is XX tonnes</b> per inhabitant per year. This is well above the world average!</p>
<p><b>A WAY TO GRADUALLY REDUCE our greenhouse gas emissions</b></p> <p>Your current carbon footprint:</p>  <p>Objective in 2050 to meet to the Paris Agreement</p>	<p>The carbon footprint composed of <b>an individual part</b> and a common part related to public services (such as hospitals, schools, roads, water treatment).</p> <p><b>The individual part is made up of different areas:</b> housing, mobility, food, purchasing and digital. It is this part that we are going to calculate today.</p> <p>It is important to <b>gradually reduce this footprint by 2050</b>. 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>
<p><b>KNOW YOUR IMPACT ON THE CLIMATE</b></p> <ol style="list-style-type: none"> <li>1 CALCULATE YOUR CARBON FOOTPRINT</li> <li>2 TAKE ACTION!</li> </ol> 	<p>The activity will take place in <b>2 stages</b>:</p> <p>You will first calculate your carbon 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 climate.</p>

<p>WHAT ACTIONS?</p> <p>More actions here <a href="https://www.anatomyofaction.org/">https://www.anatomyofaction.org/</a></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"> <li>• Go on <b>vacation by train</b> rather than by plane as soon as possible</li> <li>• Explore <b>alternatives to individual cars</b> for your daily journeys. Using public transport or cycling will also benefit your health and your wallet.</li> <li>• Have a <b>meat free day</b>. In addition to being delicious, it could become a great moment of the week.</li> <li>• <b>Cool or heat your home sparingly</b>.</li> <li>• <b>Promote second-hand purchases</b> 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.</li> </ul>
<p>UP TO YOU !</p>	<p>A <b>QR code</b> will send you to a <b>form</b> where you can</p> <ol style="list-style-type: none"> <li>1. calculate your carbon footprint</li> <li>2. save your result and choose your actions</li> </ol> <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>UP TO YOU !</p>	<p>Let's go, <b>take out your smartphones</b>. I do it at the same time as you. We will leave a <b>few minutes of calm</b> 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 carbon footprint? 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>

<p><b>Thank you for your participation !</b></p> 	<p>Congratulations on completing your carbon footprint! You join the growing community of members of our university who are committed to a more sustainable way of life! ----- <i>Dear teacher, thank you for sharing these slides with your students!</i> <i>For any questions, do not hesitate to send an email to <a href="mailto:sarah.robinet@uliege.be">sarah.robinet@uliege.be</a></i></p>
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#### 4 Choice of calculator

This activity is offered with the Belgian calculator Néo et Néa. This may not be best suited to your national situation. We therefore suggest that you choose a national calculator or use the Global Footprint Network calculator.

Here are also other calculators:

- **Europe:** Consumer Footprint Calculator (European commission) <https://knowsdgs.jrc.ec.europa.eu/cfc>
- **France:** Our Climate Gestures <https://nosgestesclimat.fr>
- **Belgium:** AWAC (Walloon Air-Climat Agency) <https://calculateurs.awac.be/app/home>
- **Switzerland:** WWF Switzerland <https://www.wwf.ch/fr/living-sustainable/ecological-footprint-calculator>
- **Netherlands:** Mijn Verborgen Impact <https://www.mijnverborgenimpact.nl/>

*We thank you in advance for your support.*

*For any questions do not hesitate to contact us.*

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