

## ● Together for climate action

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### Background

One of the targets of SDG 13 (Climate Action) is to improve education, awareness-raising and human and institutional capacity on climate change adaptation. Participatory workshops and serious games, designed to bring together a community of stakeholders to solve challenging problems using a fun interface, can be useful tools in achieving this.

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#### Further reading

<https://materre.osug.fr>

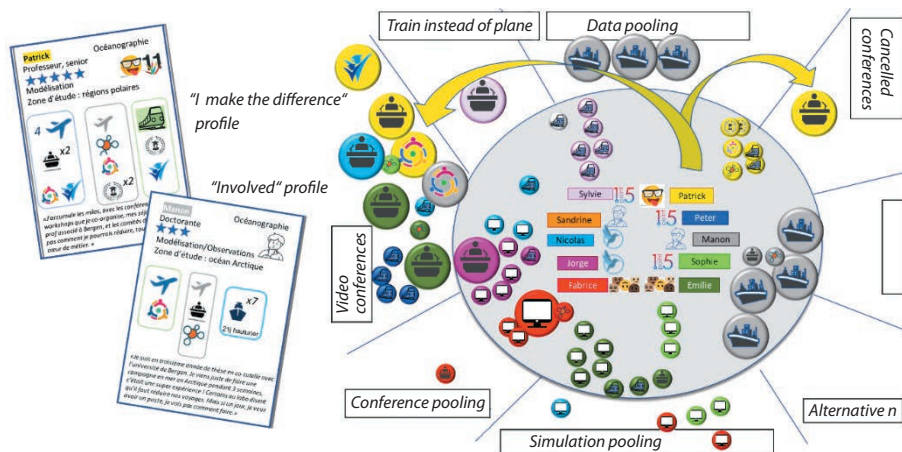
## My Earth in 180 Minutes: a participatory workshop for climate action

As part of the Labos1point5 initiative and in light of the fact that nearly two thirds of the carbon footprint of our research laboratories is directly linked to the choices made by our staff, a group of researchers from IRD pondered the following question: how can we make our community of scientists aware of the need to reduce our carbon footprint and think together about alternatives to air travel, less intensive computing and more frugal field missions? To address these issues in a fun and friendly way, and avoid a moralistic tone, they created an online participatory workshop called “My Earth in 180 Minutes”. This workshop includes a collaborative game phase that features research teams made up of characters (inspired by real life) with various profiles, such as the “what’s-the-pointist” (“what’s the point of reducing my footprint if others aren’t doing anything?”), the hummingbird (“I’m aware of the issue, I’ve changed my individual practices”), the “bulldozer” (“my fame and my work justify my travel, full stop”) and the “activist” (“I’m involved in collective action for climate change”). Playing the part of characters whose opinions we do not necessarily share helps us gain a better understanding of the different possible points of view and identify levers for changing behaviour. Based on these characters and the stringent extraction of greenhouse gas emissions carried out by the research teams, the players set out on the game board the

requirements and constraints for carrying out meaningful science while changing their practices and limiting their carbon footprint.

## 50% reduction in greenhouse gas emissions: an achievable target

The goal of the workshop was to reduce GHG emissions by 50% by asking questions about travel (by air, car, train, boat) and activities (field missions, modelling, conferences, etc.). Each game during the role-playing phase was recorded, providing valuable material for analysing behaviour and resistance to change, breaking down our certainties, and stimulating our imagination to invent the academic world of the future. At the beginning of November 2020, some 50 people took part and more than 150 observers shared their views on the inventiveness and acceptability of the solutions proposed by the players to reduce their carbon footprint. The good news was that every team managed to reduce its emissions by at least 40%, and three quarters of them came up with scenarios to reduce their emissions by more than half, a target that has galvanised the international community. One of the key solutions for achieving the targets is the use of video conferencing to replace certain field missions, attendance at conferences and thesis juries. Some players pointed out that just a year ago it would not have been so easy for them to imagine video conferencing as an alternative to travel. The Covid-19 pandemic has already made us rethink our old habits.



Example of character cards (left) and the play board at the end of the Modelling team's game (right). The team identified alternative scenarios, moving tokens from the centre to simulate the reduction in emissions (-52.3% of tCO<sub>2</sub>eq in this game).

## The benefits of this participatory workshop

So, what are the benefits for the players and more broadly for higher education and research? The first benefit is awareness of their own work-related carbon footprint and that of the scientific community in which they work. This greater understanding during the workshop is consistent with the rigorous quantification of CO<sub>2</sub> emissions carried out by research units, which is nowadays made easier by the 1point5 GHG tool developed by Labos1point5. Following the introduction of "nutriscores" for the agri-food industry, why not a "climate score" for the academic world? A second benefit is that it allows everyone to think about and come up with practical ways of limiting

emissions: video conferencing, of course, but also sharing field missions and streamlining activities that consume fossil fuels. New ideas emerged from every game. These alternatives to our current practices not only impose restrictions on us, they can also have positive effects: rethinking our relationship with time and how we organise our work-related activities (particularly when travelling); identifying a shared objective for the team; innovating when it comes to collecting data from the field; taking advantage of the increasing usability of digital tools to create new ways of collaborating, while remaining watchful of the rebound effect and the need for digital frugality.

The increase in the number of online conferences has also resulted in greater fairness and improved representation of the research community, particularly from the Global South. The “My Earth in 180 Minutes” workshop, which was designed and then launched during the two Covid-19 lockdowns in France, epitomises this hybridisation towards digital technology in both form and content, but without leaving out the human element.

But perhaps the greatest benefit is seeing the discussions shift from individual to group-based considerations. All the teams who took part demonstrated how important collective intelligence is to winning. One participant, paraphrasing the American psychologist and philosopher John Dewey, said: “My Earth in 180 Minutes made me realise the full potential of this participatory workshop. I was really impressed with this excellent approach to ‘liberating [...] the creative and transformative potential of the human race.’”

## Beyond the game: reconnecting with researchers’ social contract

Other ideas emerged during the awareness-raising and debriefing phases of the workshop. For example, some researchers would like to use it to reduce other practices such as the overuse of plastic, eating habits that are still too meat-heavy, energy efficiency of equipment and the fight against device obsolescence. In addition, the scenarios created during the role-playing phase provided new material for understanding more about the psychological barriers to change, group dynamics and the balance required between individual initiatives and collective action. Assuming the workshop succeeds in proposing credible and innovative solutions to quantitatively reduce our carbon footprints in the virtual world, the next challenge is to use it to transform our laboratories in the real world. Could a what’s-the-pointist turn into a hummingbird?

### KEY POINTS

**Although there are still many challenges, this experience shows that there are solutions to changing our travel patterns, reducing our emissions and collectively rethinking a more sustainable approach to scientific research as part of a joint effort to limit climate change. Researchers in the 21<sup>st</sup> century must change their behaviour and become aware of the balance they need to strike between their freedom to question and their responsibility to society. Promoting collaborative initiatives such as participatory workshops and role-playing games will create buy-in among researchers and generate real and lasting systemic change.**

# SUSTAINABILITY SCIENCE

**UNDERSTAND, CO-CONSTRUCT, TRANSFORM**

Collective thinking coordinated  
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