I4CE

Our carbon footprint and ours commitments for the climate

Edition 2022

I4CE
INSTITUTE FOR CLIMATE ECONOMICS
Une initiative de la Caisse des Dépôts et de l'Agence Française de Développement

In 2019, **I4CE** made a commitment to contribute to carbon neutrality. This commitment resulted from a desire to set an example, and was taken out of conviction, to also play our part in tackling the real-world challenges of the transition. We have an action plan that we revise each year after carrying out our annual GHG footprint. Here, we present our 2022 footprint, an analysis of how it compares with the 2021 footprint, and an action plan update.

RESULTS AND ANALYSIS

The 2022 GHG footprint shows that the Institute emitted 112 tCO2e, i.e. 3 tCO2e per year per employee.

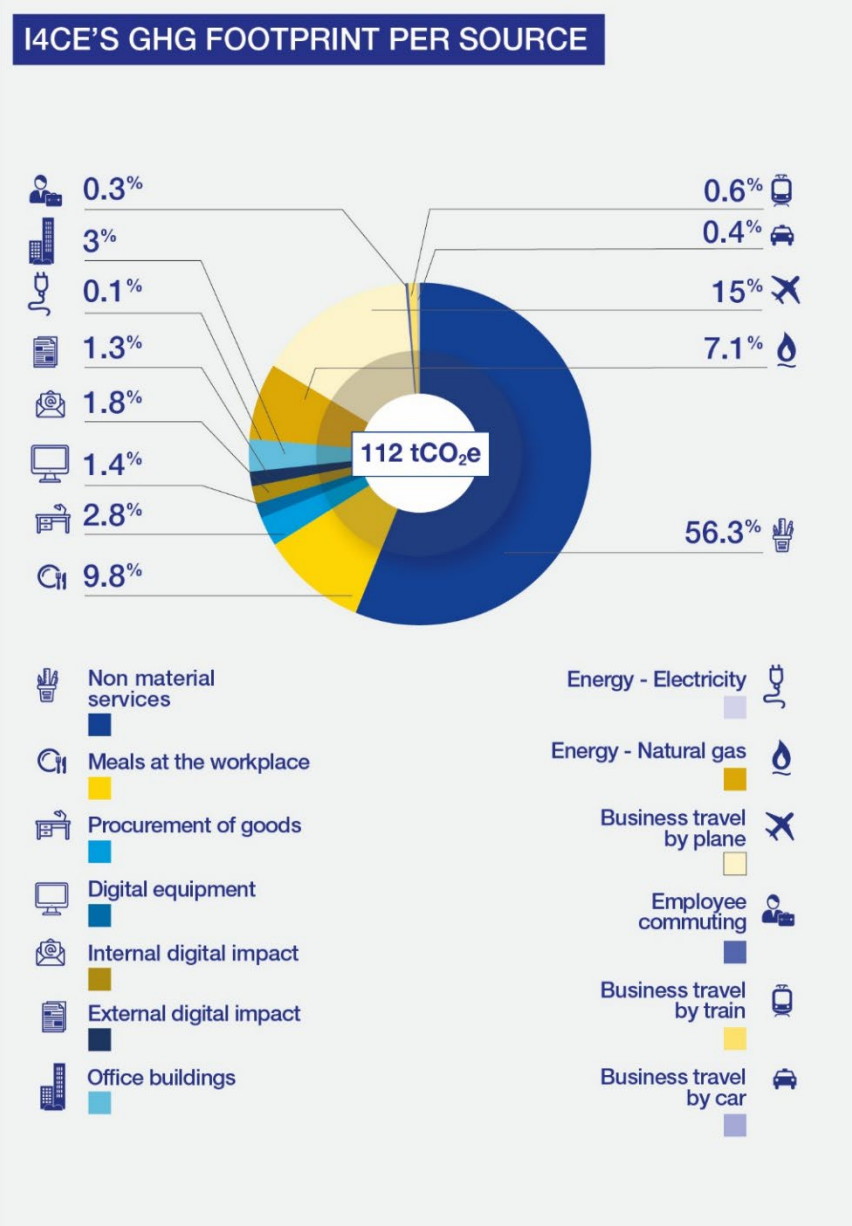

Figure 1: Breakdown of emissions by source - I4CE 2022

The most significant emission sources were included in the GHG footprint calculation, from manufacturing to the use of equipment and buildings, communications, meals, and employee travel (see Figure 2).

Each year, we aim to retain the same set of assumptions used to calculate our footprint, because this enables us to compare our results with those of previous years.

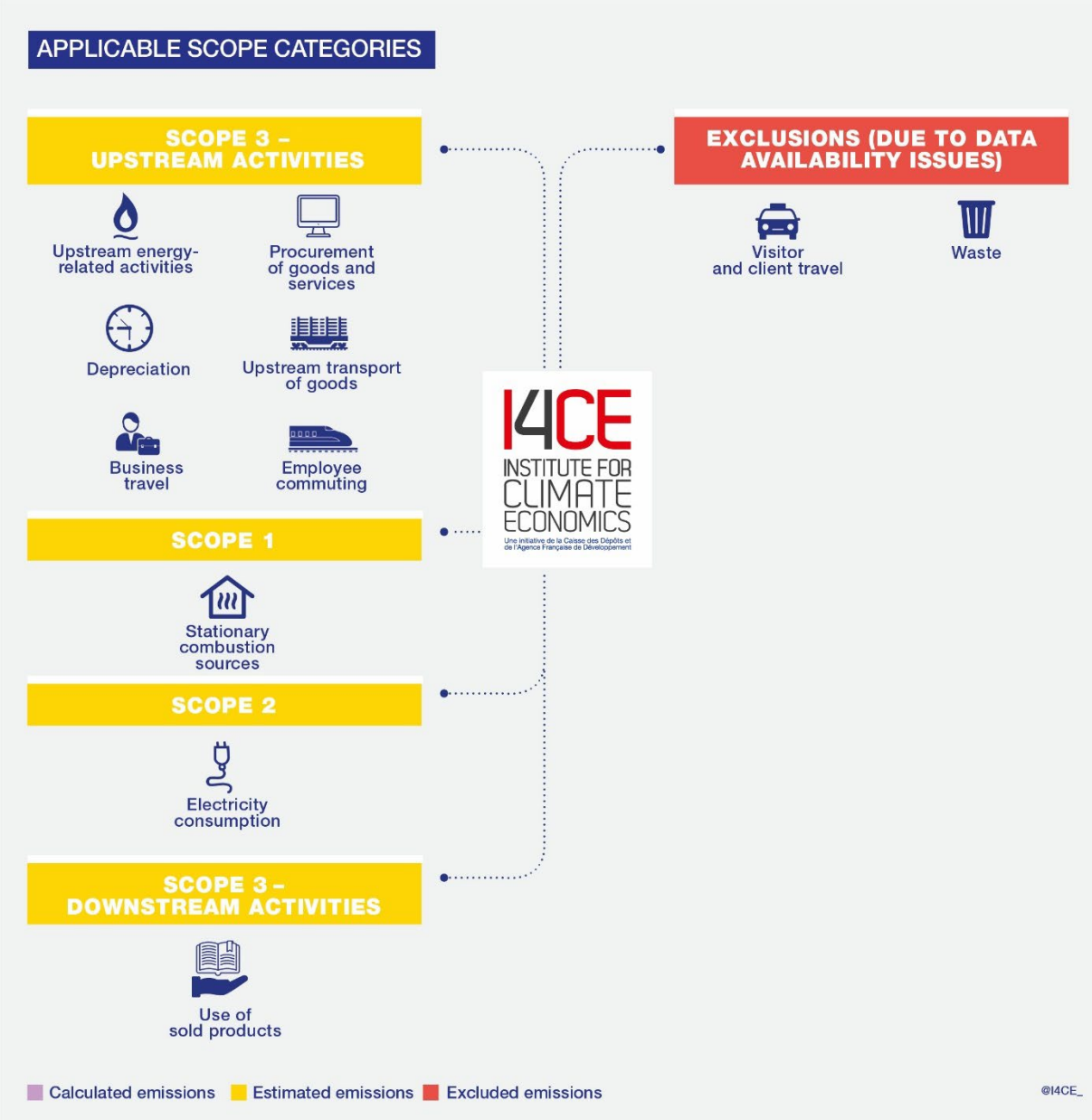

Figure 2: Scope of carbon GHG footprint

I4CE's GHG footprint has risen sharply over the course of a year, from 84 tCO2e to 112 tCO2e. This 34% increase in our emissions between 2021 and 2022 is quite significant, and can be related to our emergence from the "COVID years". Compared with a pre-COVID reference year (2019), our emissions are rather stable (109 tCO2e in 2019 and 112 tCO2e in 2022, see Figure 3) even though the number of employees has significantly increased. Indeed, **I4CE** has gone from 25 to 38 FTEs[1] between 2019 and 2022. Thus, in relation to the number of FTEs, the balance has fallen from 4.3 tCO2e/FTE in 2019 to 3 tCO2e/FTE in 2022, a 30% reduction.

However, our emissions are considerable[2] and we must seek to understand the Institute's footprint beyond the growth of the team, and strengthen our action plan. **I4CE** now has an international reach, and it is air travel that primarily explains the significant increase in the 2022 footprint. **I4CE** staff always endeavours to travel by train when the journey is under six hours[3]. However, it is clear that this is insufficient following **I4CE**'s internationalization, and means that this area requires rethinking.

I4CE identifies and implements ways to limit its footprint: for example, 90% of the team's daily meals are in line with a flexitarian diet, and all meals provided at internal events are 100% vegetarian, thus limiting the impact of employee meals in our footprint. In addition, a thermostat set at 19°C limits heating-related emissions.

[1] 1 FTE ("full-time equivalent") = 1 full-time employee over the year; a 6-month intern counts as ½ FTE.

[2] According to the IPCC, the CO2 "budget" of each Earth person should be between 1.6 t and 2.8 t of CO2 per year between now and 2100. https://www.statistiques.developpement-durable.gouv.fr/sites/default/files/2020-01/datalab-essentiel-204-l-empreinte-carbone-des-francais-reste-%20stable-janvier2020.pdf

[3] Based on and going beyond the recommendations of the Citizens' Climate Convention https://www.lecese.fr/sites/default/files/pdf/Convention/ccc-rapport-final.pdf

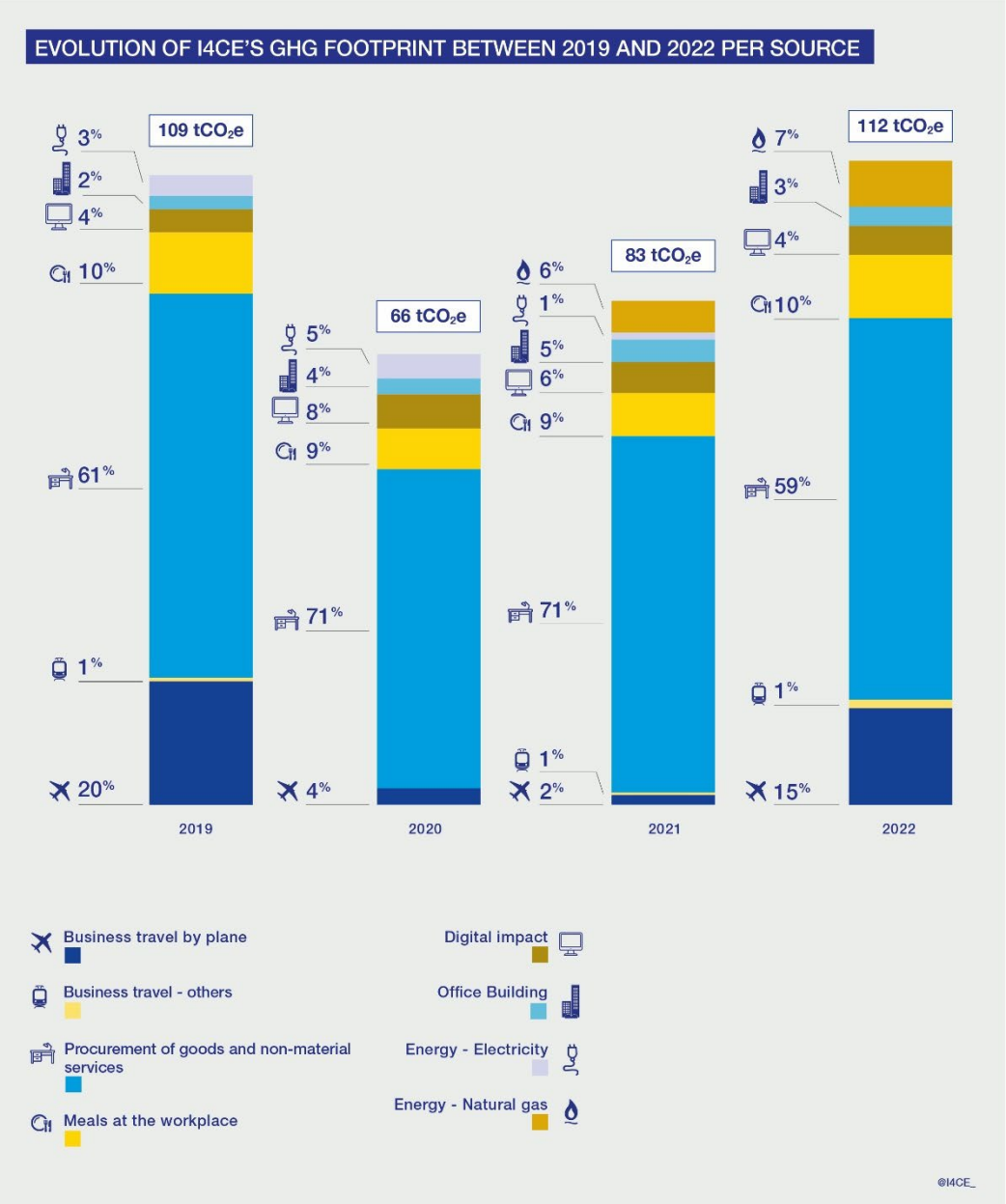

Figure 3: Change in emissions by source between 2019 and 2022 in tkgCO2e

1) Primary source of emissions: service procurement by the Institute (63 tCO2e; 56%)

This category includes all external services required for **I4CE**'s operations, from digital licences to the graphic design required in some of our projects. To calculate this emissions source, we applied the set of monetary ratios provided by ADEME, which enables the conversion of euros spent into CO2e emitted, according to the service category.

Although this method is a source of uncertainty due to its lack of granularity, it nevertheless enables us to compare our emissions very accurately from one year to the next, while maintaining the same classifications.

This source increased between 2021 and 2022, from 50 tCO2e to 63 tCO2e. This rise was mainly due to the growth of the Institute's workforce and therefore in related purchases. For example, due to an increased number of business trips compared to 2021, there was a 3-tonne emissions increase linked to accommodation for team members.

In addition, the Institute revamped its website in 2022, resulting in an additional 3 tonnes of emissions from this source. However, this has led to a reduction in emissions associated with digital technology, which will continue in future footprints (see analysis of digital technology).

2) Second source of emissions: business travel (18 tCO2e; 16%)

Despite an effort to reduce the impact of business travel by encouraging video-conferencing and almost systematically favouring rail over air, **I4CE**'s internationalization has meant that the proportion of air travel in the 2022 footprint has risen to 15%. Travel by train, car, and employee commutes, continue to account for a tiny proportion of our footprint, at 0.6%, 0.4% and 0.3% respectively.

3) Third source of emissions: employee meals (11 tCO2e; 10%)

Emissions from this source were estimated on the basis of a survey on employee meals. 90% of the team's meals are part of 'flexitarian' diets, which has a 30% lower GHG impact than a conventional diet, according to ADEME. In addition, **I4CE** systematically offers vegetarian meals at its internal events, while meals provided at external events feature at least one vegetarian option.

Emissions linked to employee meals increased by 50% between 2021 and 2022. While this can be explained in part by the increase in staff numbers, the main reason for this increase is a change in the methodology used to account for expenses.

4) Fourth source of emissions: energy (8 tCO2e; 7%)

Heating **I4CE**'s offices with gas is the fourth largest source of emissions (7.1%). Electricity consumption to power the Institute's equipment represents only 0.1% of the overall GHG footprint[4].

Energy-related emissions have increased by 24% compared to 2021. To accommodate more people on its premises, **I4CE** relocated in April 2021. The new office is larger than the previous one (going from a total area of 178 m2 to 254 m2) and the heating system is fuelled by gas, while the previous building had electric heating.

These two changes could have led to very significant emission increases from this source. However, the Institute was able to limit this increase by being energy efficient during the winter, having installed a thermostat set at 19°C and by monitoring its gas consumption on a weekly basis.

[4] This calculation does not take into account electricity consumption by telecommuting employees. Point 2.c) of our action plan explains the methodology used by Ademe to estimate the effects of telecommuting on I4CE's activity.

Finally, regarding electricity, since the new **I4CE** premises are located in a green courtyard, the Institute no longer needs air conditioning in summer.

Furthermore, since it no longer relies on electricity for heating either, electricity-related emissions have fallen drastically between 2021 and 2022, from 1.2 tCO2e to 0.1 tCO2e. **I4CE** is supplied with 100% renewable energy via Enercoop[5].

5) Fifth source of emissions: digital technology (5 tCO2e 5%)

Digital technology accounts for 4.5% of our emissions, of which 1.3% is attributable to external consultations (downloading **I4CE** reports, taking part in webinars organized by the Institute, etc.). IT equipment accounts for 1.4%. By purchasing 100% reconditioned IT equipment, we are able to reduce our emissions in this area by 80% (according to an ADEME study). Finally, the digital practices of in-house researchers (sending emails, printing, web requests, etc.) account for 1.8% of the 2022 footprint.

In line with the commitments made by **I4CE** in its 2021 action plan, a new sustainably designed website went live on 22 July 2022, enabling the emissions associated with every page view to be reduced by a factor of 17. The impact of the website's redesign was not yet fully realized in 2022, with 60% of visits still going to the previous site. However, 260 kgCO2e of emissions were already avoided. In 2023, if the number of site visits remains constant, this figure will reach 650 kgCO2e of avoided emissions. In five years, the emissions reduced as a result of the site's sustainable design will be equivalent to the emissions associated with the site redesign service contracted in 2022 (assuming a constant number of visits).

6) Sixth source of emission: purchase of material goods (3 tCO2e; 3%)

Due to a sustainable procurement policy, the acquisition of the material goods for day-to-day operations, such as paper, office furniture, etc., represent only 2.8% of the footprint, making it the lowest emission source.
Between 2021 and 2022, purchases of material goods have been reduced by a factor of three. This difference is largely due to the Institute's 2021 relocation and the purchases to furnish the new premises that year, something that was not repeated in 2022.

The I4CE climate action plan

In 2019, **I4CE** made a commitment to contribute to carbon neutrality. This commitment resulted from a desire to set an example and was taken out of conviction. An internal working group has been set up to carry out an annual GHG footprint of the Institute to assess our impact, thus enabling us to define an action plan to reduce our emissions. All of **I4CE**'s actions in this regard are listed below.

[5] Enercoop's emission factor is 23.65 gCO2e/kWh for 2022 (production and distribution), while RTE's is around 55 gCO2e/kWh for production alone.

1) Transport

a. For business travel, a travel policy has been implemented: no flights within mainland France or abroad where a train alternative exists that offers a journey time of less than six hours. Some "long distance" travel will remain necessary for **I4CE**'s work, especially as the Institute becomes more international, but videoconferencing between international partners is already preferred, an option that is to be increasingly favoured. When travel is unavoidable, it will be optimized to minimize the number of journeys made by employees and partners, as is the case for travel to the Conference of the Parties (COP) as part of the international climate negotiations that the **I4CE** team attends, and during which it organizes several workshops and conferences. In addition, to encourage team members to choose the train rather than the plane whenever possible, if a train journey results in a working day of more than 14 hours, including travel time, then the employee receives a half-day off to compensate for the time spent travelling.
b. For commutes: the Institute encourages employees to use public transport by reimbursing Navigo cards above the legal minimum rate (75% instead of 50%). In addition, even before the adoption of the Mobility Orientation Law (Loi d'Orientation des Mobilités - LOM), **I4CE** introduced a sustainable mobility package of up to €500/year to encourage low-carbon transport such as cycling. This type of package is not yet mandatory for companies or associations. **I4CE** also finances train commutes for long-distance teleworking employees.

2) Building / energy

a. In April 2021, **I4CE** moved to new premises: as a tenant of the new offices, the Institute was able to choose a renewable electricity supplier, Enercoop, which is set to halve emissions from electricity consumption.
b. In 2022, **I4CE** installed a thermostat that maintains the temperature at 19°C, and weekly monitors its gas consumption during winter.
c. **I4CE** allows employees to telework in the Île-de-France region or in other cities, depending on their contract. This enables the office to operate as a flexible workspace (or "flex-office"), i.e. facilitating the dynamic assignment of workspaces according to use, rather than assigning offices to individuals, which allows the optimal use of office space and avoids the need for a larger office. ADEME sets out a methodology to address the rebound effects of teleworking, according to which the flex-office approach more than offsets the impact of any increase in the use of transport, and the use of any additional resources required to work from home[6].

3) IT / digital / web

a. The Institute's IT equipment consists entirely of refurbished computers. I4CE also favours the repair of IT equipment, rather than replacement, whenever possible.

[6] As telecommuting measures linked to the health context have largely modified our way of working, we have improved the methodology for calculating our footprint to take account of these changes. See https://librairie.ademe.fr/mobilite-et-transport/3776-caracterisation-des-effets-rebond-induits-par-le-teletravail.html.

Since 2022, I4CE has also purchased refurbished phones for its employees, giving them the option of using a work phone in addition to a personal one, or to use a dual sim phone to avoid having multiple phones.

b. In 2022, **I4CE** worked on redesigning its website and launched a new sustainable website on 22 July 2022. This will achieve an estimated annual emissions reduction of 650 kgCO2e.

4) Service providers

Wherever possible, **I4CE** supports service providers with environmental and social commitments.

a. Office cleaning: **I4CE** has chosen a cleaning service provider with ISO 14001[7] environmental certification and AFAQ EI[8] social certification. The cleaning products used are not harmful to the environment and waste is sorted daily.
b. Caterers: meals for internal events are 100% vegetarian. Meals for I4CE-organized external events always offer at least one vegetarian option.
c. Printing: for many years **I4CE** has worked with an Imprim'vert[9] certified company. This eco-label is awarded to printers who work to reduce the environmental impact of their activities. In addition, the Institute is committed to a just-in-time printing approach, which limits printing to only that which is strictly necessary. In addition, all **I4CE** publications are available on the Institute's website and can be viewed online.

5) Contribution to national climate effort

a. Despite all our efforts, today and tomorrow, **I4CE**'s GHG footprint will never be zero. Reducing our emissions is the priority, "deep decarbonization" is the objective, but the reality is that we continue to emit and will have unavoidable emissions in the future. The Institute is therefore committed to contributing to the global effort of greenhouse gas emissions reductions by financing certified projects on French soil that are commensurate with its emissions. To this end the Institute uses the *Label Bas Carbone* (low-carbon label). Does this make it carbon offsetting? **I4CE** prefers to use the term "contribution", because we believe that financing projects does not cancel out **I4CE**'s emissions.

[7] https://www.iso.org/fr/iso-14001-environmental-management.htmls
[8] http://www.lesentreprisesdinsertion.org/actualites/certification-afaq-eietti
[9] http://www.imprimvert.fr/page/1/Accueil