ecotree

CARBON FOOTPRINT REPORT
2021

Introduction

In our day-to-day work with partner companies, we constantly **emphasise the importance of avoiding and reducing emissions first** before committing to planting trees or contributing to the maintenance of forests and preservation of biodiversity. As such, our communication towards individual clients often encourages them to reduce their greenhouse gas (GHG) emissions as the most important and first step to mitigate and fight against climate change. **Yes, we can grow and manage forests to capture carbon, but reducing, i.e. eliminating carbon at the source is the best way to reduce one's ecological impact! We feel it is essential to act with humility and to set an example with our actions.** All EcoTree employees are actively working to reduce the company's GHG emissions.

In this respect, this year we are publishing a new measurement of our greenhouse gas emissions across all three scopes. **As a company, we aim to reduce our own carbon footprint year after year and to contribute more and more to the fight against climate change!**

Erwan Le Méné
Co-founder and President of EcoTree

After carrying out our first carbon assessment in 2021, we embarked on a process of **continuous improvement.**
Since then, **we have initiated actions to reduce our impact,** for example by favouring service providers committed to ecology and sustainability, but also by working actively to reduce our own website's ecological footprint and by encouraging employees to use less environmentally damaging modes of travel. We have also done important work to improve how we measure and collect data about our emissions.
This greenhouse gas report, based on our 2021 emissions, is presented here in a simplified form and will serve as a basis for setting our reduction targets. Our primary objective? **To use this 3-scopes-based carbon footprint report as a basis for EcoTree to contribute to global carbon neutrality by 2050 and to respect the Paris Agreements.**
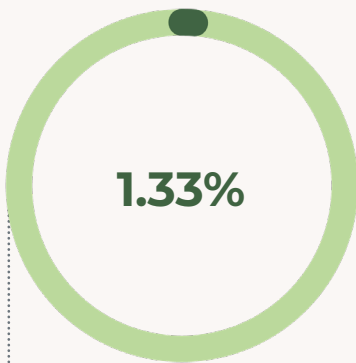
Louisiane Guézel
CSR Manager

Ecotree's Carbon Footprint

599.45 tCO₂e
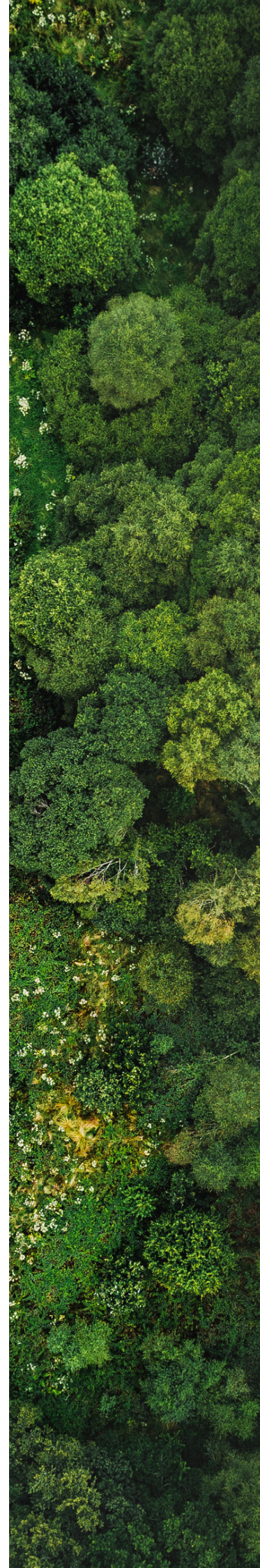
i.e. **9.77** tCO₂e per employee

Compared to companies with equal turnover, our figures are **59%** lower than the carbon footprint of a French forestry company, but **4.5%** more than a service business*. *(*Comparisons made using data from Normative).*

1.33%

SCOPE 1

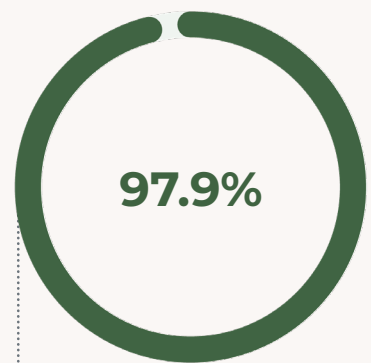This corresponds to direct greenhouse gas emissions.

- **Sources of combustion linked to the use of forestry machines and office heating.**

0.77%
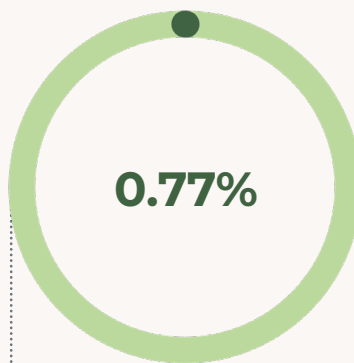
SCOPE 2

This corresponds to indirect emissions linked to energy.

- **Offices' and digital devices' electricity consumption.**
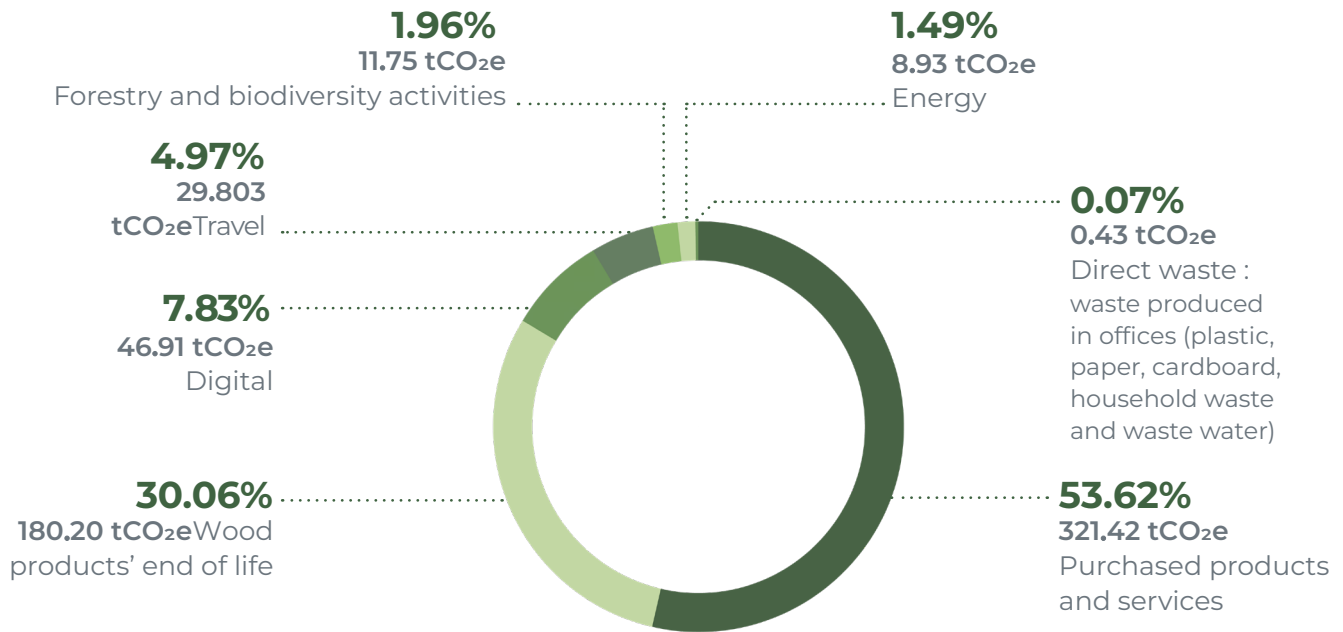
97.9%

SCOPE 3

This corresponds to all other indirect emissions, such as:

- **Purchasing of products and services**
- **Travel**
- **Digital**
- **Products' end of life**
- **Direct waste**

Scope 3 accounts for almost all of EcoTree's carbon footprint. These are not GHG emissions directly linked to EcoTree's activities, but, given their importance, it is essential to find solutions in order to exert an influence on these particular emissions.

For more information on scopes 1, 2 and 3, **click here**

Carbon footprint Breakdown

1.96%
11.75 tCO₂e
Forestry and biodiversity activities

1.49%
8.93 tCO₂e
Energy

4.97%
29.803
tCO₂eTravel

0.07%
0.43 tCO₂e
Direct waste :
waste produced
in offices (plastic,
paper, cardboard,
household waste
and waste water)

7.83%
46.91 tCO₂e
Digital

30.06%
180.20 tCO₂eWood
products' end of life

53.62%
321.42 tCO₂e
Purchased products
and services

53.62%
Purchased products and services

products and services purchased by EcoTree (excluding purchases related to the company's forestry and biodiversity activities)

30.06%
Wood products' end of life

end-of-life management of wood leaving EcoTree forests

7.83%
Digital

purchase and use of IT products, internet use, external software purchases, website impact, videoconferencing, emails, file storage

4,97%
Travel

travel business and home-work travel for employees

1,96%
Forestry and biodiversity activities

greenhouse gas emissions necessary for EcoTree's forestry and biodiversity activity, including fuel consumption, travel by partners or foresters in the field and purchases (equipment, seedlings)

1,49%
Energy

energy consumption in the company's offices (electricity, gas, fuel oil)

Methodology

EcoTree has followed the methodology for quantifying GHG emissions proposed by the **French Environment and Energy Management Agency.**
EcoTree also used their 'Base Carbone®' database. However, its calculations concerning positions related to digital technology and those related to forestry and biodiversity activities have been adapted, in order to estimate their impact more precisely. Indeed, some emission factors were missing in the Base Carbone®.

Please note

Certain data (particularly data related to the "Purchases" item) had to be made using estimates. Thus, like all carbon footprint reports, not all values are perfectly exact, and greater value should be placed on orders of magnitude. On the other hand, considerable work has been done this year in order to be as close as possible to reality and to limit these estimates.

What does CO_2e mean?

Throughout this document, the term CO_2e, which refers to the CO_2 equivalent of a greenhouse gas emission, is used instead of the simple term CO_2. CO_2e relates all GHGs to the same order of magnitude as that of CO_2. Thus, in this document, **CO_2e is used as a reference value, as a unit.** "tCO_2e" represents the tonnes of CO_2e emitted.
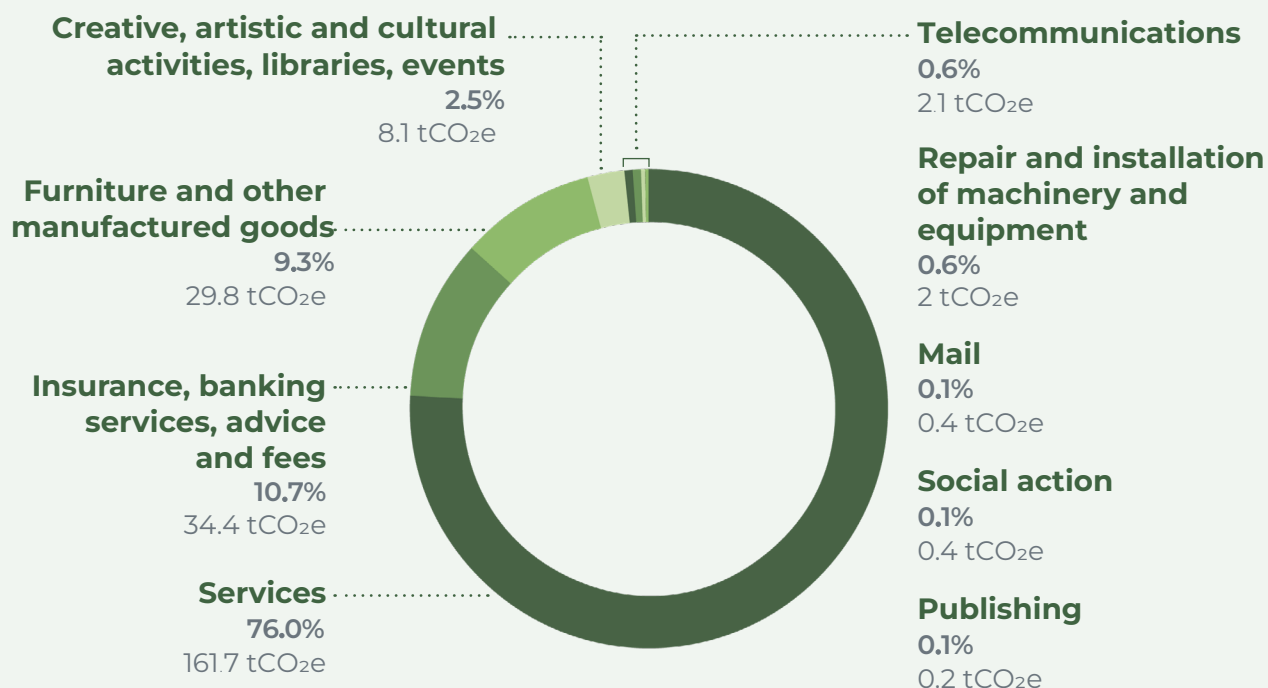
Our main emission items in detail

Focus on purchases

The category of products and services purchased by EcoTree represents a little more than half of the entire carbon footprint. **Our suppliers' and other service providers' impact is thus taken into account.** Because we are aware of this impact, **EcoTree is increasingly collaborating with service providers that are committed to reducing their carbon footprint.**

We note that there are three major emission items related to purchases:
- Services: miscellaneous fees, subcontracting, referencing, contributions and miscellaneous subscriptions.
- Insurance, banking services, advice and schedules: commissions for payments, fees related to insurance, costs of legal acts, etc.
- Furniture and manufactured goods: office supplies, equipment.

Distribution of the impact of **purchases of goods and services** (tCO$_2$e)

Creative, artistic and cultural activities, libraries, events
2.5%
8.1 tCO$_2$e

Telecommunications
0.6%
2.1 tCO$_2$e

Furniture and other manufactured goods
9.3%
29.8 tCO$_2$e

Repair and installation of machinery and equipment
0.6%
2 tCO$_2$e

Insurance, banking services, advice and fees
10.7%
34.4 tCO$_2$e

Mail
0.1%
0.4 tCO$_2$e

Social action
0.1%
0.4 tCO$_2$e

Services
76.0%
161.7 tCO$_2$e

Publishing
0.1%
0.2 tCO$_2$e

Please note:
A large part of this category's data relies on monetary ratios. This category's accuracy is therefore not guaranteed, but the orders of magnitude make it possible to distinguish the most emitting stations.

# Focus on wood products' end-of-life

Managing wood's end-of-life is the second most emitting item of our 2021 carbon footprint. Indeed, in the EcoTree model, when the tree reaches the end of its life and its carbon sequestration decreases, it is harvested while favouring a minimal impact on the forest ecosystem.
In 2021, cuts were made in the forests of Langoëlan, Berné and Melgven and **based on the quality of the wood, it was transformed into industrial wood or fuelwood.** Their emissions are not the same:
- Fuelwood involves an instantaneous release of the carbon stored by the tree.
- For industrial wood, the sequestered carbon will be slowly released over a period of 25 years.

This is the very principle of CO_2 by nature. **The planting and maintenance of forests allows the protection of biodiversity and a considerable storage of CO_2 in the long term, but not permanently.**

Distribution of the impact of **wood's end-of-life** (tCO_2e)

Industry
10.4%
18.8 tCO_2e

Energy
89.6%
161.7 tCO_2e
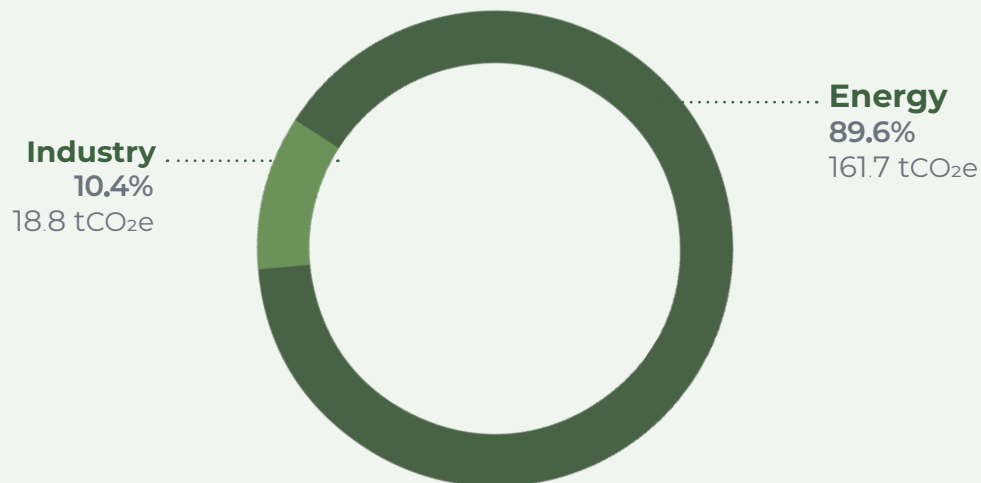
Regarding fuelwood, it should be noted that **for 1kWh from wood logs, only 40 grams of CO_2 are released: this is 10 times less than for fossil energy such as fuel oil.** Thus, wood has a substitution effect, playing an important role in the fight against climate change.
For its part, industrial wood gradually releases GHG emissions but remains a sustainable raw material.

Because EcoTree started its activities in 2016, the wood coming out of its forests is not yet sufficiently mature and developed to produce lumber. **However, our ambition is of course to participate in the development of European timber! By 2022, some trees will be able to produce around 400 m³ of sustainable timber.**
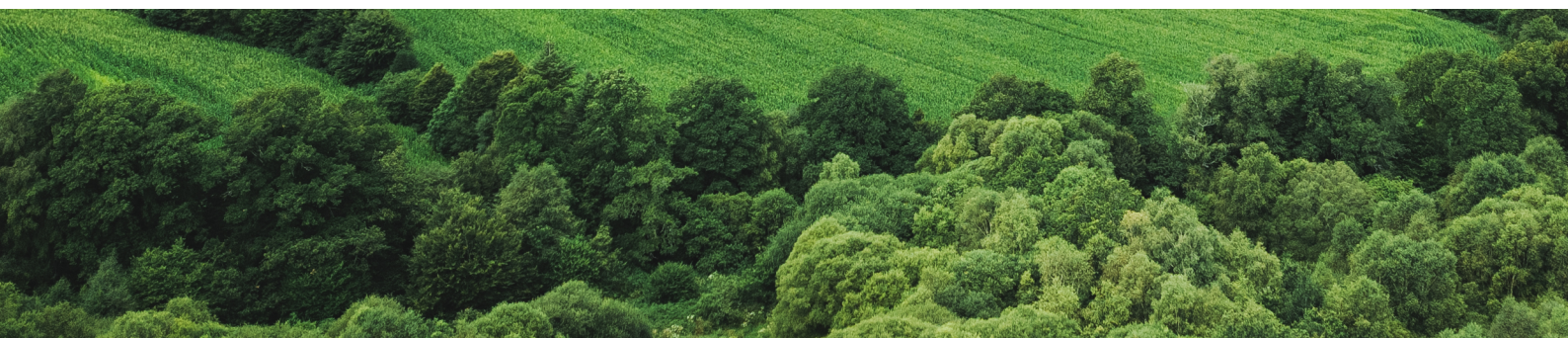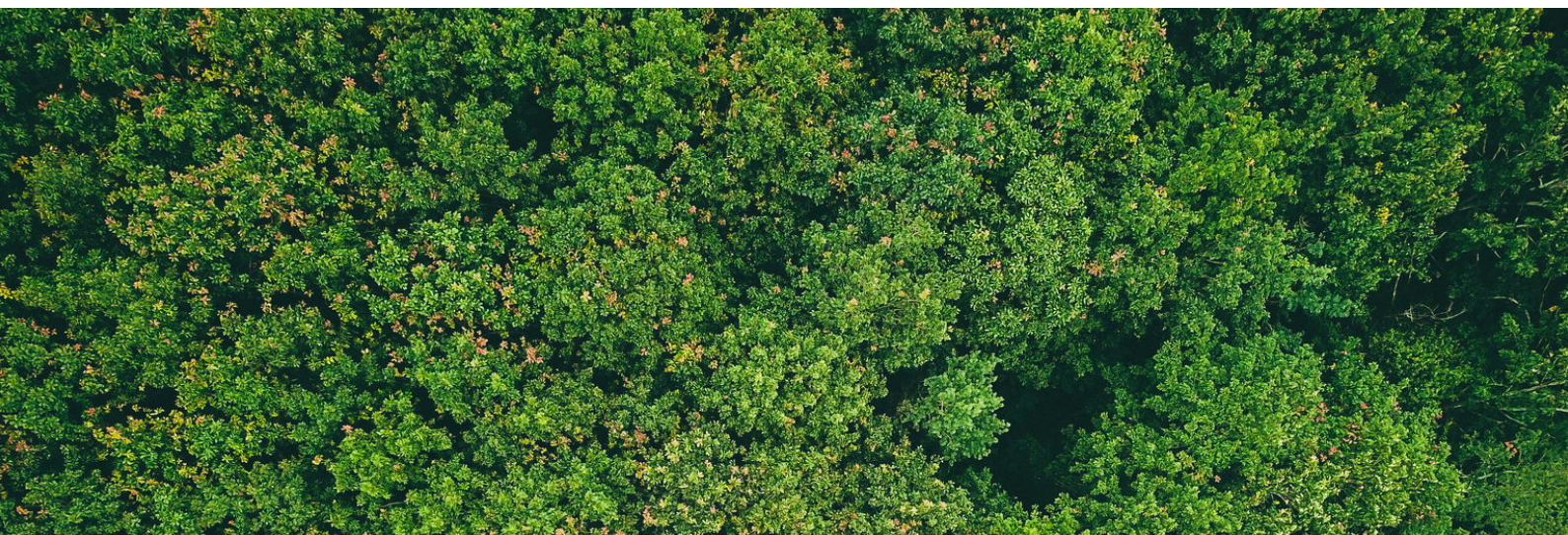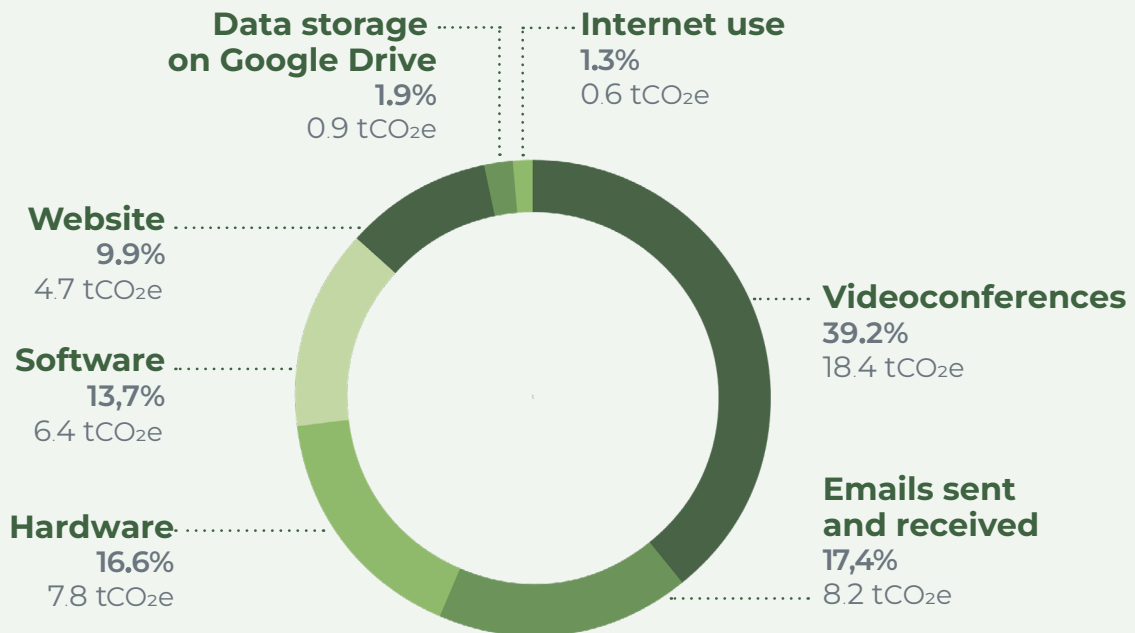
Focus on digital

EcoTree's third largest source of emissions are digital.

The three highest emitting items are videoconferencing, the weight of emails sent and received and the production and use of digital equipment. **EcoTree employees clearly have a role to play in reducing the digital impact:** it is therefore a question of raising their awareness. EcoTree is also working to adopt a responsible purchasing policy for its computer equipment.

Finally, EcoTree has already begun to engage in a responsible digital approach, in particular by reworking its website so that **each page of the EcoTree website is more efficient and requires fewer round trips to the servers.** The EcoTree website is in fifth place of the most emitting posts in the digital category.

Distribution of **digital impact** (tCO_2e)

Data storage on Google Drive
1.9%
0.9 tCO_2e

Internet use
1.3%
0.6 tCO_2e

Website
9.9%
4.7 tCO_2e

Videoconferences
39.2%
18.4 tCO_2e

Software
13,7%
6.4 tCO_2e

Emails sent and received
17,4%
8.2 tCO_2e

Hardware
16.6%
7.8 tCO_2e

# Focus on travel

Travel represents 5% of the carbon footprint.

Employee commuting

We note that in terms of kilometres, the **metro and bicycle are the most used means of travel** among our employees. Although mopeds and motorbikes only represent 7% of transport modes for EcoTree employees, they represent 59.8% of emissions from home-to-work travel.
To reduce this impact,**our French offices are participating in a "sustainable mobility package" program** which rewards employees who have opted for a sustainable mode of transport, such as cycling.
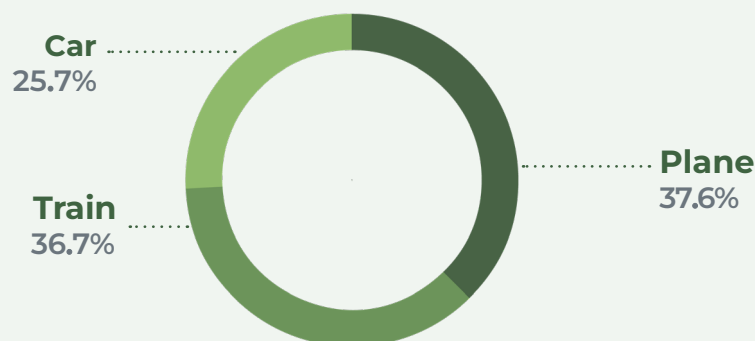
Distribution of commuting means
(cumulated km per day)

Car
2.2%

Walking
2.1%

Motorbike/moped
7.3%

Metro
37.2%

Train
18.7%

Bike/scooter
30.9%
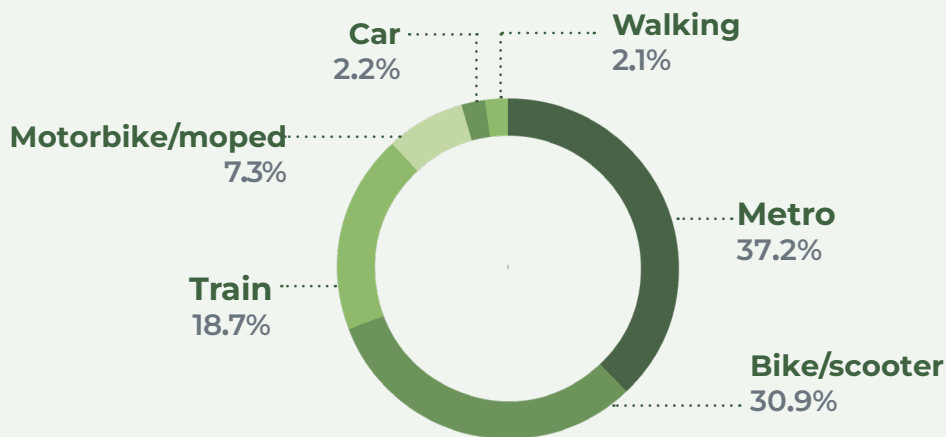
Business travel

Business travel is mainly between the different EcoTree offices, that is to say between Paris , Brest and Copenhagen. Although **the train, the plane and the car are used in an almost equivalent way** in terms of kilometres travelled, **the plane represents 53% of travel emissions** for business travel. If it is essential to preserve physical meetings between company employees, **favouring the train for transport seems the best solution.** Thus, we are impatiently awaiting the Paris - Copenhagen connection by night train!

Business travel

Car
25.7%

Plane
37.6%

Train
36.7%

What we want to improve

Purchased products and services	• Set up a responsible purchasing charter and integrate social and environmental criteria into the choice of purchases. • Encourage employees to buy only when necessary, and use a decision-making tool to determine a company's virtuousness.
End of life	• Continue to favour the manufacturing of our trees into lumber or industrial wood rather than fuelwood. • Finding new ways to value wood, such as biochar, which allows the sequestration of CO_2e for 1000 years.
Digital	• Increase IT equipment's lifespan to increase devices' amortisation time and better manage their end of life. • Raise employee awareness about responsible digital technology (videoconferencing, emails, etc.).
Travel	• Encourage soft mobility for commuting. • Favour train for business travel.
Energy	• Generalise the financing of renewable energies for the 3 offices.
Forestry and biodiversity activities	• Integrate responsible criteria into the choice of suppliers. • Mutualize and optimise the travel of partners in the field.
Direct waste	• Reduce waste & add value to residual waste (recycle, compost).

Our greatest ambition for 2022:

Set targets for reducing our impact based on the Science Based Targets Initiative (SBTi) and a trajectory to contribute to planetary carbon neutrality.

Conclusion

> **From this 2021 measurement of our GHG emissions, there are different points to remember:**
>
> - EcoTree's emissions for the 3 scopes are estimated at **599.45 tCO_2e or 9.77 tCO_2e per employee.**
>
> - EcoTree's 4 main emission items are, in order of importance: **Purchasing, end of life of wood products, digital, employee travel.**
>
> - Compared to last year, the carbon footprint seems to have increased significantly. This is mainly due to the inclusion of new emission items and the large increase in the number of employees. **The modification of the calculation methods, much less estimated this year, complicates the comparison of this carbon footprint with that of the previous year.**
>
> - Based on the carbon footprint, EcoTree has set itself various ambitions in 2022, including that of **defining a clear and scientific trajectory (according to the SBTi[1] benchmark)** allowing it to reduce its carbon footprint.

⚠ Please note

By measuring its carbon footprint, **EcoTree's objective is not to reduce the scope of its activity.** If one only looked at carbon emissions, it could be said that we should stop or reduce our activities. However, EcoTree's ambition is to sequester more carbon in its forests and to protect biodiversity. Thus, although EcoTree's carbon footprint may not decrease from year to year (because its activity grows), EcoTree aims to decrease, in the long term, **each employee's proportional impact.**

✋ Limits

The use of estimates was sometimes necessary, in particular for the collection of certain data (energy bills in Copenhagen, business travel, purchases, etc.). Ultimately, our objectives for improving data collection and limiting the use of estimates are in particular:

- To standardise data collection between the offices in Brest, Paris and Copenhagen.

- Follow up on data and invoices so that they are reported throughout the year.

- Conduct interviews with our main suppliers to better understand their ecological impact.

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[1] *The Science Based Target is an initiative of international bodies (CDP, United Nations Global Compact, WWF and World Resources Institute) that seeks to ensure the adequacy of gas reduction targets at greenhouse effect that companies set themselves with climate science data while aligning with the Paris Agreements (2015).*

Some interesting comparisons

General information:

French / Belgium person: **10-15 tCO$_2$e / year**	=		**3 - 6 round trips** Paris - New York **300 - 500** trees planted *

General information:

Internet: **4%** global emissions	=		**all the air traffic** in the world
Ten very big data centers: **1000 MW**	=		production of a **thermal power plant**
20 emails sent in one day	=		**100 km** travelled by car
EcoTree's **website**	=		**~ 390** trees planted * **4 round** trips Paris - NYC
4h of Google Meet / day	=		**3h** of Zoom / day **1h30** of Discord / day
Video conferencing: **add the camera**	=		multiply our **impact by 3**
4G consumption	=		**4 x fiber** consumption

Travel:

1 round-trip Paris - Marseille by plane	=		**~ 6 trees planted *** **1 round trip** Paris - Marseille by car **57 round** trips Paris - Marseille by train
Metropolitan travel by car	=		**1.5 x** metropolitan travel by bus **38 x** metropolitan travel by Metro / RER

Direct waste:

1 ton of household waste	=		**8 tons** of paper / cardboard thrown away **11 tons** of plastic/glass discarded

* The data is based on an estimate («one tree = 30 kgCO$_2$e / year on average»). This estimate is not a general truth and cannot be considered as exact. The parameters that influence the carbon capture of a tree are numerous and change constantly.