



**ON**  
**CARBON**  
**AUDIT**

**REPORT**

**SOMMAIRE**

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**i** ZIPIZI manufactures products (mainly glasses) in China and Taiwan and sells them all over the world. ZIPIZI's staff and its founders, who are becoming increasingly aware of and sensitive to climate issues, wanted to initiate a proactive approach to monitoring and improving the company's carbon impact, beyond its regulatory obligations.

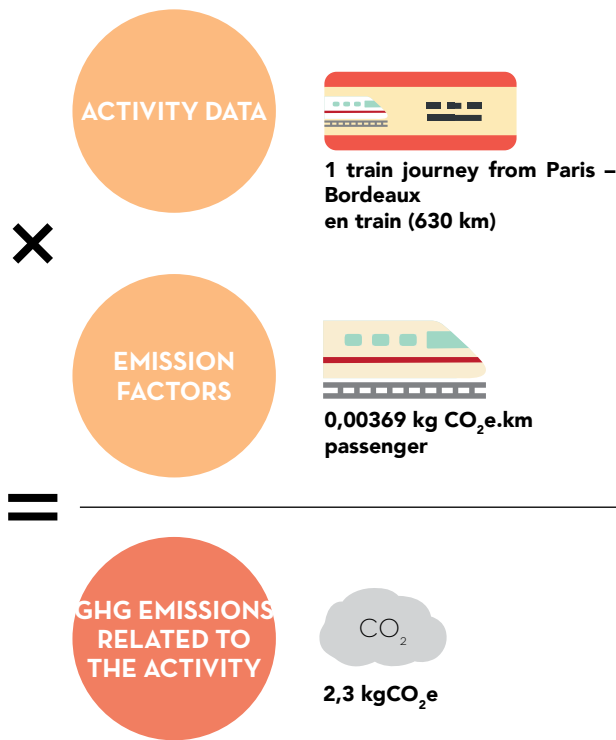
To this end, ZIPIZI called upon UTOPIES, a firm specializing in environmental impact studies and strategy, in order to conduct its voluntary Carbon Audit. The results of this study, detailed below, have enabled ZIPIZI to understand its major sources of greenhouse gas (GHG) emissions, to develop an action plan to kick-start a process of continual improvement and to set a 50% reduction target for GHG emissions per pair of glasses within the next 3 years.

# INTRODUCTION

# METHODOLOGY

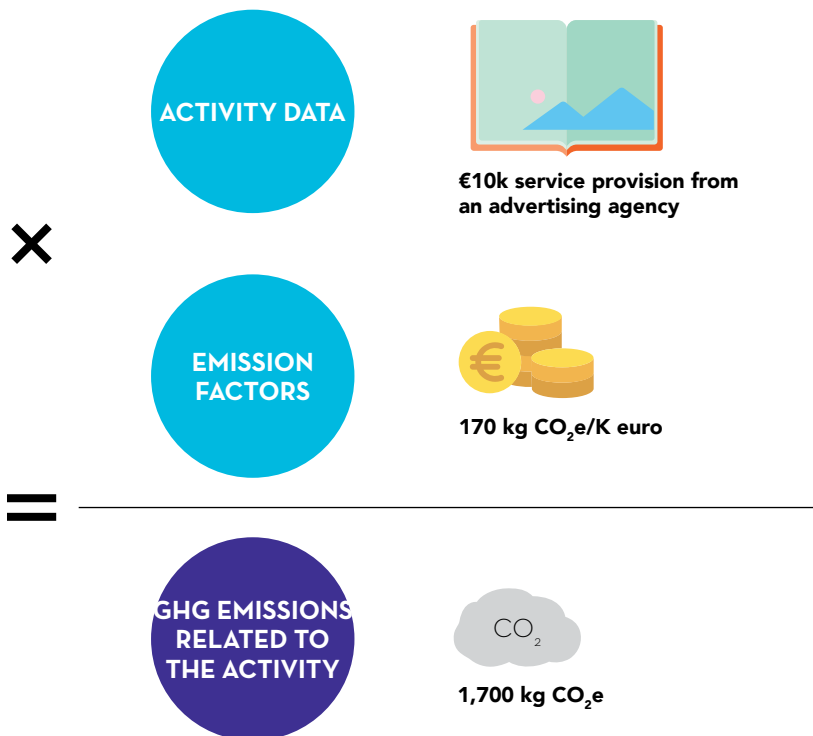
The Bilan Carbone® method, which was developed by the French Agency for Ecological Transition (ADEME), was used to evaluate direct and indirect GHG emissions over a year of business activity. This method accounts for GHG emissions generated by all the physical processes required for the company to exist.

Namely, GHG emissions are calculated by multiplying (physical) activity data by emission factors from the renowned ADEME Carbon Database.



In addition, thanks to the LOCAL FOOTPRINT® model, UTOPIES complemented the analysis of physical data by also taking into account GHG emissions linked to monetary data relating to the company's purchases

By financial equivalence, each economic transaction in the supply chain - modelled up to 15th rank of suppliers and across 380 sectors and 220 countries - is converted into GHG emissions. This makes it possible to measure the carbon footprint of IZIPIZI's entire supply chain.



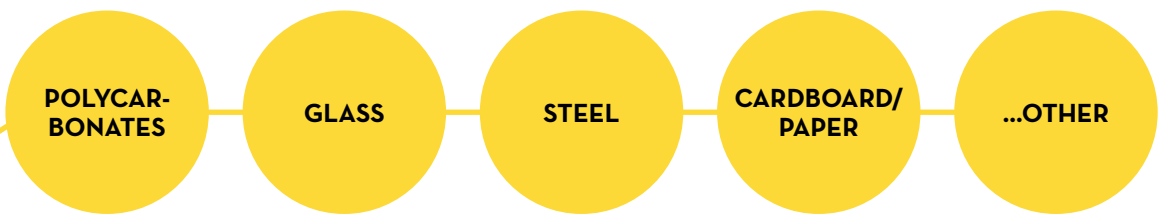
# BOUNDARY

The Carbon Audit made it possible to quantify the carbon impact of IZIPIZI's overall activity in 2019 (January 1, 2019 - December 31, 2019), by taking into account:

- ▶ Emissions related to all stages of the product's life cycle (from raw materials to the end-of-life of the final product)
- ▶ Emissions linked to the head office and stores (4 stores were taken into account)

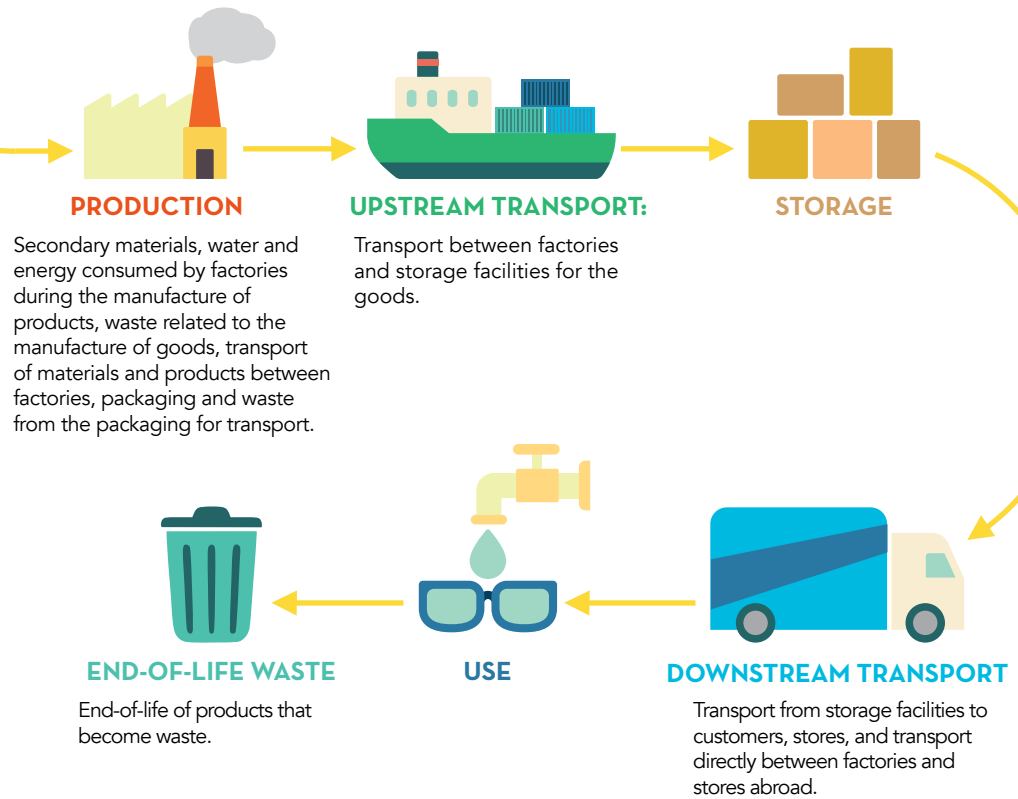
The data was collected from IZIPIZI employees, suppliers/ service providers who have a close link with the products, glasses manufacturers, and display manufacturers.

The different categories of sources of emissions comprise numerous data which has been collected, reprocessed and then evaluated.



## RAW MATERIAL

All the raw materials used in the products as well as the freight for transporting the materials to the factories.

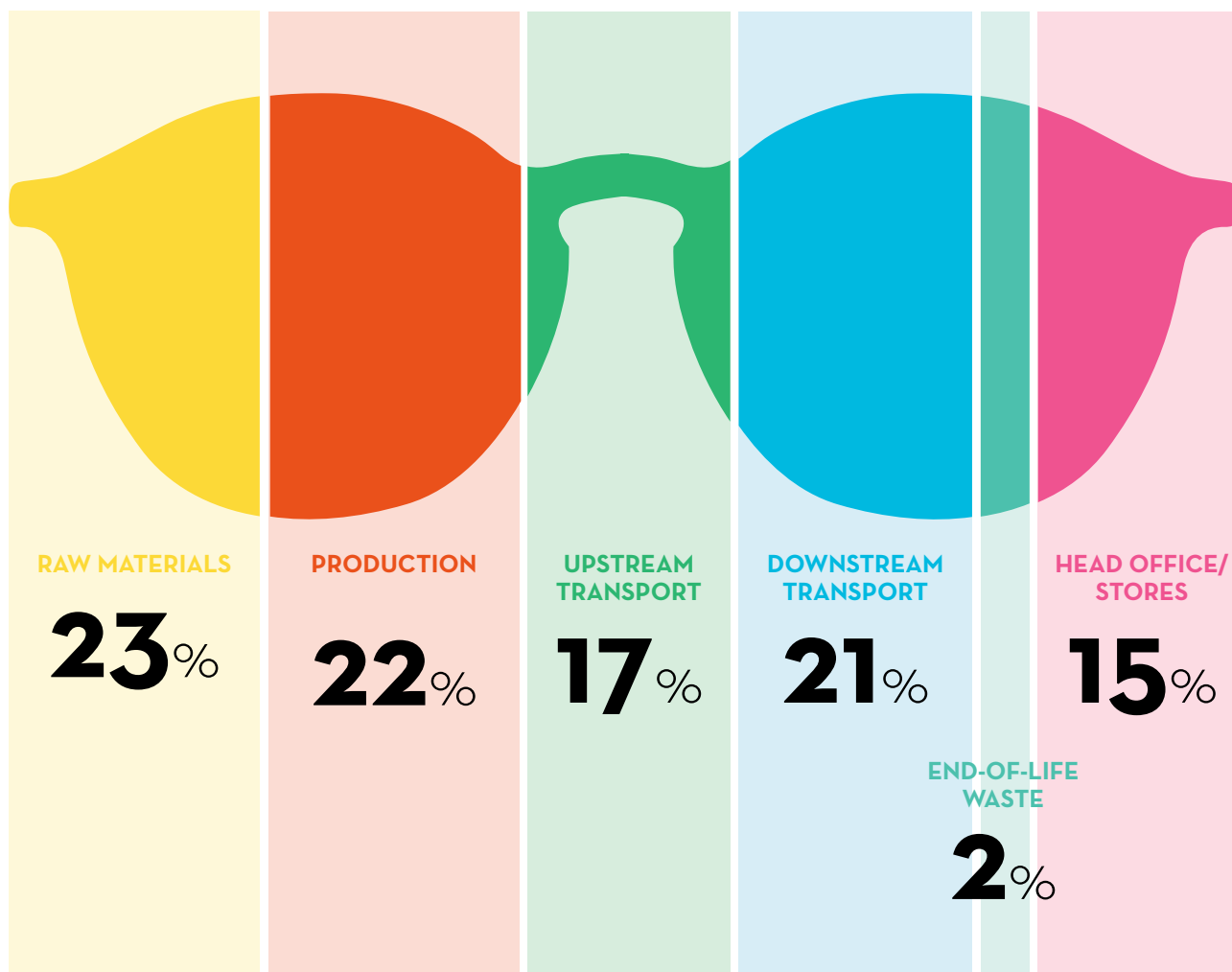


## HEAD OFFICE/STORES

Energy consumption, supplier expenditure, commuting, business travel, packaging for delivery, fixed assets (rented buildings, screens, computers, printers etc.).

# RESULTS

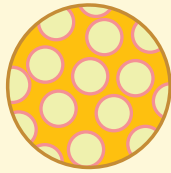
The results of IZIPIZI's Carbon Audit for 2019 applied to a pair of glasses gives an equivalent of **2.0 kgCO<sub>2</sub>e** per pair. These emissions take into account all of the following sources of emissions: raw materials, production, upstream and downstream transport, waste and the end-of-life of all products (glasses, packs, pouches, displays) and head office/stores. These emissions are broken down as follows:



**T**he Carbon Audit reveals that CO<sub>2</sub>e emissions are fairly evenly distributed over the different phases of the product life cycle. The raw materials that make up the products represent 23% of the total, followed by production (22%) and transport to get the manufactured

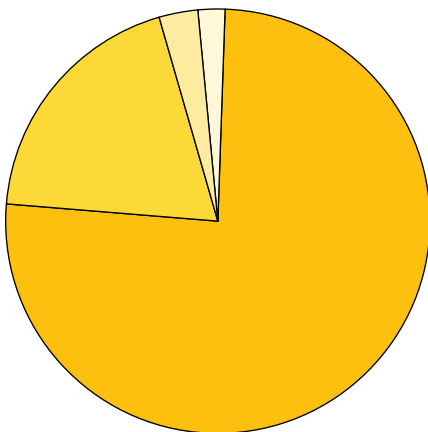
goods from factories to the storage facilities (17%) and from the storage facilities to stores or directly to the customer (21%). This even distribution has encouraged IZIPIZI to develop an action plan that covers different phases of the life cycle, the main pillars of which are outlined

directly on the website. The objective of a 50% reduction in emissions applies to all of the company's sources of emissions and products (including packs, pouches and displays), and not only for the emissions produced by glasses.



## RAW MATERIALS

**T**he raw materials used in the production of glasses account for 77% of emissions. This is followed by the packs which are made of cardboard and paper (19%), and the pouches which are made of recycled polyester (3%). The displays which are produced in Portugal represent only 2% of emissions. This is mainly due to the use of low-emitting materials (wood, cardboard, glass, etc.) and the low production volume of this type of product (compared to the number of glasses).

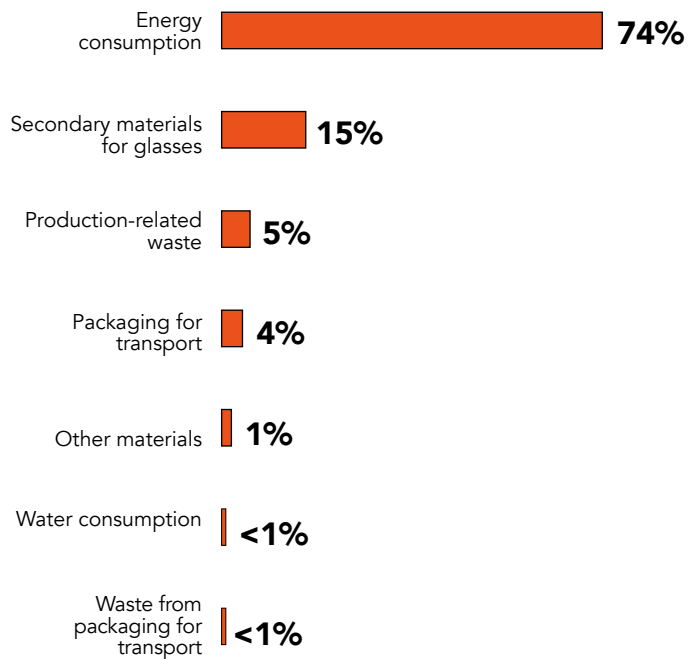


- Glasses • 77%
- Packs • 19%
- Pouches • 3%
- Displays • 1%



## PRODUCTION

**E**nergy consumption (electricity) related to the production of glasses accounts for 74% of this source of emissions. This can be explained in particular by the importance of electricity use in factories and by Taiwan's energy mix which is predominantly based on coal and oil (around 76% in 2016).



## UPSTREAM TRANSPORT

**A**ir transport accounts for a very large proportion of these emissions. For transport between factories and the storage facility in Troyes, although 93% of glasses are shipped by boat, this represents only 13% of CO<sub>2</sub>e emissions, while air transport, which accounts for 7% of the shipment of glasses, accounts for 84% of emissions. Road transport between the port or airport of arrival of the products and storage facilities represents 3% of emissions.



## DOWNSTREAM TRANSPORT

**D**ownstream transport is the third largest source of emissions. Transport between storage facilities and the end customer (French and foreign customers and stores) relies on three modes of transport: sea, air and road. Sea and air transport accounts for 92% of emissions compared with 8% for road transport.



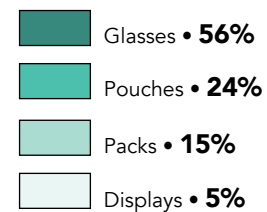
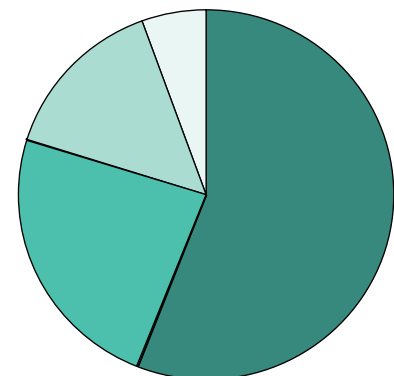
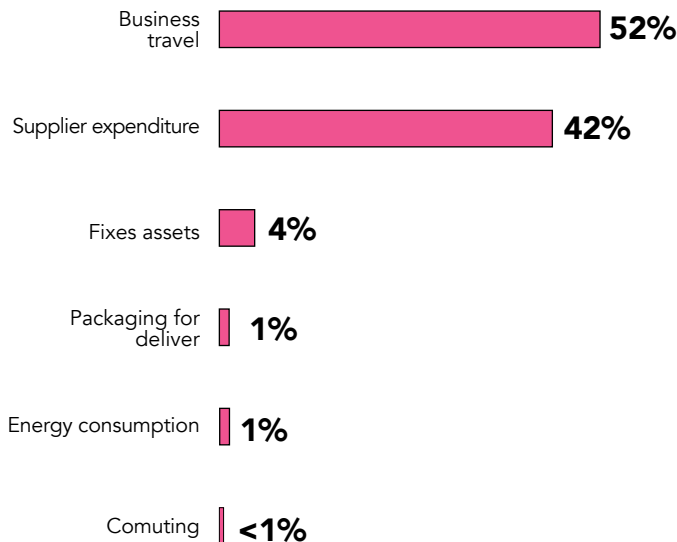
## END-OF-LIFE WASTE

**I**n order to measure the end-of-life of IZIPIZI products, which represents only 2% of the carbon footprint, it was assumed that all products distributed will "one day or another" be thrown away. Based on this hypothesis, 56% of the end-of-life impact concerns glasses. This is followed by pouches (24%) and packs (15%). For glasses, a conservative hypothesis was adopted regarding their end-of-life: half of the materials that make up a pair of glasses (in particular plastic and steel) have been considered as "incinerated" and the other half as "landfilled". This makes it possible to hypothetically take into account the differences in waste treatment between different countries. Incineration emits 24 times more CO<sub>2</sub> than landfill.



## HEAD OFFICE/STORES

**H**ead office and store-related impacts account for 15% of total emissions and are mainly concentrated by two sources of emissions: business travel and supplier expenditure.



## CLARIFICATION ON SOURCES OF EMISSIONS TAKEN INTO ACCOUNT

SCOPE OF EMISSIONS	CATEGORY OF SOURCES OF EMISSIONS	N°	SOURCES OF EMISSIONS
DIRECT EMISSIONS	•	1	Direct emissions from stationary combustion units
	•	2	Direct emissions from mobile combustion units
	•	3	Direct emissions from non-energy processes
	•	4	Direct fugitive emissions
	•	5	Emissions from biomass (soil et forests)
INDIRECT EMISSIONS LINKED TO ENERGY USE	Head office/stores; Production	6	Indirect emissions from electricity consumption
	•	7	Indirect emissions from steam use, heating and cooling
OTHER INDIRECT GHG EMISSIONS	Head office/stores; Production	8	Emissions linked to energy not included in categories 1 to 7
	Raw materials; Production	9	Purchased products and services
	Head office/stores	10	Fixed assets
	Head office/stores; Production	11	Waste
	Upstream transport	12	Goods transport (upstream)
	Head office/stores	13	Work-related travel
	•	14	Leased assets (upstream)
	Head office/stores	15	Investment*
	•	16	Travel by customers and visitors
	Downstream transports	17	Goods transport (downstream)
	•	18	Use of products sold
	End-of-life - waste	19	End-of-life treatment of products sold
	•	20	Franchises (downstream)
	•	21	Leased assets (downstream)
	Head office/stores	22	Commuting travel by employees
	•	23	Other emissions not included in the above categories

### KEY

	Source of emissions evaluated
	Source of emissions not evaluated but applicable to IZIPIZI
	Source of emissions not evaluated because not applicable to IZIPIZI

"Most communication regarding the climate lacks clarity and transparency. Specifying that emissions are calculated on scopes 1, 2 and 3 is not enough. In order to be able to judge the relevance of a carbon footprint and climate strategy, the reader needs to be given more detail: which sources of emissions are taken into account and how (with physical or monetary data)? It is also necessary to explain why certain sources of emissions have not been included in the study."

**Antoine Joint**  
Consulting Director at Utopies



\* All sources of emissions were evaluated on the basis of physical data, with the exception of expenditure from suppliers/subcontractors and investments, which were evaluated on the basis of monetary data.



## CLARIFICATION ON DATA NOT TAKEN INTO ACCOUNT

**T**he study focused on measuring the sources of GHG emissions that emit the most. Therefore, the sources of emissions that were not evaluated, such as 'transport of visitors and customers' who visit stores to buy a pair of glasses, 'use' linked to the maintenance of glasses, 'energy consumed by storage facilities' or 'supplier expenditure of factories', can be explained because these sources are not very important in terms of carbon emissions and are difficult to quantify. On the other hand, the uncertainty levels associated with these sources of emissions are high and the levers for action to reduce them are more difficult to implement.



## LIMITS AND UNCERTAINTIES

**T**he results of a Carbon Audit are an order of magnitude. Therefore, it is necessary to be transparent about the margins of uncertainty inherent to the method. These uncertainties are related to two factors: uncertainty in the data and uncertainty in the emission factors.

### Uncertainties in the data:

While some data are known with precision, such as energy consumption, litres of fuel, quantities of waste or fixed assets, etc., others must be estimated from the results of a survey or extrapolated from usable data.

### Uncertainties in the emission factors:

The emission factors provided by the ADEME database in the Bilan Carbone® tool or by Ecoinvent represent average values resulting from different studies such as Life

Cycle Assessments. The degree of uncertainty attached to these figures can thus vary between 5% and 50% depending on the validity and source of the study used. This lack of precision linked to the uncertainty in the emission factors in no way hinders the main objective of the Carbon Audit, which is to provide an incentive to reduce greenhouse gas emissions. For all the ADEME emission factors used in the study conducted for IZIPIZI, the uncertainty rate weighted according to the relative proportion of emissions is 40%.

**C**reated in 1993 by Élisabeth Laville, UTOPIES is the first independent agency and think-tank in France (and the world!) focused on supporting businesses and brands who have made sustainable development a cornerstone of their strategy. With a team of fifty consultants, UTOPIES' mission is to open up new avenues by encouraging companies to integrate social and environmental issues at the heart of their mission, strategy and innovation approach. The agency is notably recognised for its work on brand strategies and positive innovation, but also for its expertise in socio-economic impact studies and local economy.

UTOPIES is eager to lead by example and tops the Great Place to Work 2019 ranking in the category for "Companies with fewer than 50 employees". The agency was also the first company to be awarded the B Corp label in France in 2014, and until 2019 was in charge of the French development of this international certification of committed companies. The UTOPIES team is present in Paris, where its historic head office is located, but also in Bordeaux and Annecy, as well as in Sao Paulo for the past few years.

[WWW.UTOPIES.COM](http://WWW.UTOPIES.COM)

## **CONTACT DETAILS**

[climat@utopies.com](mailto:climat@utopies.com)