

# Portfolio

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## My Background

I have a double engineering degree from ESPCI Paris in « Physico-Chemistry » (materials science) and from Mines ParisTech in "Innovation and Entrepreneurship". Following my studies, I had the chance to do 2 internships related to the low-carbon transition and then worked for 2 years at Lovebox as Operations Engineer and then Head of Supply Chain.

I was certified by ABC to carry out Bilan Carbone® and have experience in the GHG Protocol. And I've taken the B Leader training course to support companies in the B Corp certification process. I also run the circular economy collage.

## Life Cycle Assessment (LCA)

### Why an LCA ?

Life Cycle Assessment (LCA) is an evaluation method designed to quantify the environmental impacts of a product or service.

An LCA can be carried out in different contexts and for different needs. Here are the main reasons why my clients contact me :

- You have a legal obligation to carry out an LCA (implementation of ecological labeling, environmental declaration, environmental claim to justify, obtaining a label...). This LCA must contain a "critical review" to be able to communicate the results;
- You want to communicate on your environmental impact in order to attract new customers. Customers are increasingly concerned by these issues, and companies that fail to communicate on their environmental impact risk losing business to the competition;
- Your suppliers, customers or prospects may ask you to use the data in their own carbon footprint. With the arrival of the CSRD, smaller companies will also be concerned by these requests;
- Your investors may ask you to do so. More and more investors are taking the environmental aspect of your product into account before investing. If you want to secure funds, it's worth doing so;
- You want to identify opportunities for improving the environmental performance of products at different stages of their life cycle. Or eco-design your products. LCA is the first step ;
- You want to compare the environmental impact of your product with that of the competition ;

The ISO 14040 and ISO 14044 standards set out the framework for LCA (definition of the objective and scope of the study, life cycle inventory, assessment of life cycle impacts and interpretation). The depth and breadth of an LCA can vary considerably, depending on its objectives.



## LCA examples

### Comparative LCA for Reconcil

#### *Context*

Reconcil is a company offering a returnable packaging service for takeaway food. The LCA aimed to compare the environmental impacts of the service with those of single-use packaging commonly used in the food industry. To prove the environmental benefit of the solution.

#### *Scope*

The first step was to frame the LCA. It was decided to carry out a "cradle-to-grave" LCA, as use and end-of-life are the main stages to be taken into account, and it would make no sense to carry out another type of LCA (e.g. cradle-to-gate, where use or end-of-life are not taken into account).

The impact criteria selected were: climate change (GHG emissions), water consumption, ecotoxicity and energy consumption (impacts selected after reading articles on LCAs carried out in the same context. Ex: use of ecocups vs. disposable cups, totbody vs. disposable bag).

All stages have been taken into account: extraction of raw materials for the manufacture of returnable packaging, manufacture of returnable packaging, transport of packaging to Reconcil's premises, transport of packaging by cargo bike to retailers (clean on the outward journey and dirty on the return), washing of packaging and end-of-life. Ditto for single-use packaging (no use, end-of-life only).

#### *Résultats*

For confidentiality reasons, I cannot publish all the results of the LCA. If you want to find out more, please visit the Reconcil website.

However, it was concluded that Reconcil's polypropylene packaging became more environmentally advantageous (on all impacts) than PP single-use packaging after 4 uses (excluding water), 4 for PLA, 9 for aluminum and 11 for cardboard.

#### *Customer Feedback*

*« I worked with Alice when I was DG at Reconcil: her help was decisive on several subjects, including the lifecycle analysis of the service offered by the company. She's very efficient, autonomous and quick to understand. I highly recommend her for your projects ! » N.*

**Djamdjian, CTO**



## LCA for a Board game - Dimoi

### Context

Dimoi is a company that sells board games. They wanted to repatriate production of their board game "Mamie Moule Maki" to Europe, or produce it entirely in China. Currently, the game is partly produced in Poland and partly in China. The LCA aimed to compare the game's current production with possible country change in the production line.

### Scope

This was a "cradle-to-gate" LCA + transport to the logistician (here, use and end-of-life were not taken into account, as there was no difference between the current scenario and the changes in production) on a single criterion (climate change, GHG emissions).

The stages taken into account were: extraction of raw materials for the manufacture of the different parts of the game, manufacture of the game parts in Poland and China, transport of the different elements to the assembly plant in Poland, assembly of the game and transport to the logistician. 5 scenarios were studied to give the company the best tools to make a decision: assembly and manufacture of the paper parts in Poland with production of the plastic parts in China transported by plane (reference scenario), idem with sea transport of the parts produced in China (scenario 2), production of all the parts in Poland (scenario 3), assembly and production of the paper parts in France + plastic parts produced in China, transported by ship (scenario 4) and finally production and assembly in China with transport of the complete game by ship (scenario 5).

### Résultats

For reasons of confidentiality, I cannot publish all the LCA results.

The deliverable offered the company a comparison of the 5 scenarios in terms of GHG emissions. As Poland and China have very similar electricity mixes, the difference in production in these two countries was not significant. The main difference was therefore on the transport aspect and the means of transport used.

Each scenario was compared with the 4 others to give a global view of the company.

### Customer Feedback

*« Alice carried out an LCA (cradle-to-gate) for one of our board games. While we had some difficulty in obtaining the information from our supplier, Alice was very patient and above all very constructive in finding solutions to obtain this information. The mission went well, the report is very clear and Alice took the time to present us with the results of her research. I highly recommend this professional »* **E. George, Marketing Manager**



# Carbon Footprint Assessment

## Why a Carbon footprint assessment ?

A carbon footprint is an evaluation method designed to quantify a company's greenhouse gas (GHG) emissions over a given period. The Carbon Footprint is governed by an international standard: the GHG (Green House Gas) Protocol and ISO 14064. This standard was created by the World Resource Institute and the World Business Council for Sustainable Development, and is still the most widely used and recognized standard for GHG assessments worldwide. In France, a method derived from the GHG Protocol has been developed by ADEME and distributed by ABC (Association pour la Transition Bas Carbone), known as Bilan Carbone®.

A CFA can be carried out in different contexts and for different needs. Here are the main reasons why my customers contact me :

- For legal purposes. In France, companies with over 500 employees are already required to produce a BEGES (Bilan Carbone réglementaire). New European legislation, the CSRD, also forces companies to report on this subject. Smaller companies will also be called on to do so by their suppliers ;
- To launch your decarbonization strategy. Carrying out a Bilan Carbone is often the first step in the decarbonization process, which can take time. It will enable you to put in place a concrete action plan targeting the most important priority items ;
- To attract new talent. Candidates are increasingly interested in the CSR policy of the company to which they are applying. Having a carbon footprint is a good way of showing that the company has taken the subject seriously, and that candidates will work in line with its values ;
- For your investors. Like the LCA, the carbon footprint is a way of showing investors that you are committed to the ecological transition ;



## Carbon Footprint Assessment Examples

### Kent Pharma CFA (GHG Protocol)

#### *Context*

Kent Pharma is a UK-based pharmaceutical company. With around 80 employees and sales of £70 millions, Kent Pharma is required to report its greenhouse gas emissions to the UK's High Authority for Health. This study was carried out in partnership with Nexio Project

#### *Scope*

This was a Bilan Carbone according to the GHG Protocol, and the first carried out by Kent Pharma. Scope 1, 2 and 3 were calculated, with particular attention paid to scope 3. The first step was to sort the categories relevant to Kent Pharma's activity (categories 1, 2, 3, 4, 5, 6, 7, 9 and 11 of GHG Protocol scope 3 were selected). Kent Pharma carried out data collection, and I made assumptions for missing data.

#### *Résultats*

For confidentiality reasons, I cannot publish all the results of the CFA.

The deliverable offered a complete study of the company's emissions by item. Like many companies in the service sector, over 90% of emissions came from Scope 3 (raw material purchases). The deliverable contained: a presentation of the organizational perimeter, a summary of the data collection (which data for which item from which source), a summary of the sources used for the greenhouse gas emission factors and the results (by category, by site, by employee...).

#### *Customer Feedback*

*« Alice was autonomous in carrying out the project and communicated smoothly with the customer. She is very responsive »* **C. Carreno, Lead Climate Team**



## Badminton Club de l'Ubaye CFA (Bilan Carbone®)

### *Context*

The Badminton Club de L'Ubaye (BCU04) is an amateur badminton club. The club wanted to obtain the eco-bad label for its sporting events, and to do so it needed to carry out a Bilan Carbone.

### *Scope*

This was a Bilan Carbone according to ADEME's Bilan Carbone methodology, and the first for BCU. Scope 1, 2 and 3 were calculated, with particular attention paid to scope 3, and in particular travel. The first step was to sort out the categories relevant to the BCU's activity (the categories linked to transport, the purchase of materials and electricity were retained). I collected the data, produced the Bilan Carbone and an easy-to-implement action plan.

### *Résultats*

For confidentiality reasons, I cannot publish all the results of the Bilan Carbone.

The vast majority of emissions (over 65%) came from transport. The club is located in a rural area. Members therefore travel to training sessions by car (for those living more than 3km away), as there is no public transport.

The same applies to travel to tournaments, which are on average over 50km away.

### *Customer Feedback*

*« Alice carried out a complete carbon audit of our badminton club for our Ecobad label project. She was very efficient when it came to collecting data, and was able to find alternatives when data collection was difficult. I recommend Alice for your carbon footprint assessments. »* **S. Charpin, Secretary**



## Low Carbon Strategy

### Low carbon Strategy for SGD Pharma

#### *Context*

SGD Pharma is a pharmaceutical company that produces glass bottles for industrial customers. The company wanted to know its customers' position on CSR and particularly the environment.

#### *Scope*

This involved a study of the various initiatives existing in pharmaceutical companies to enable SGD Pharma to collaborate with its customers to reduce their carbon footprint. The first step was to find information in the companies' CSR reports.

#### *Résultats*

The deliverables were: an Excel table with all existing initiatives relating to the pharmaceutical industry (e.g. SBTi, GHG emissions calculations, UN SDGs, PSCI, net zero commitment, biodiversity, water, RN100...) and a ppt presentation of the results.

#### *Customer Feedback*

*« I highly recommend Alice. Very easy to talk to. Fast, clear, good communication, deliverables in line with expectations in content and form, good understanding of objectives.*

*» C. Grassi, Chief Commercial Marketing & Innovation Officer*



## They trusted me



## Member of 3 highly-selective networks



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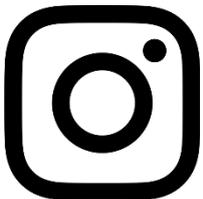
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