Hotel's environmental labelling
Calculation and certification method

Betterfly Tourism

Consulting firm
Software publisher
Training organisation

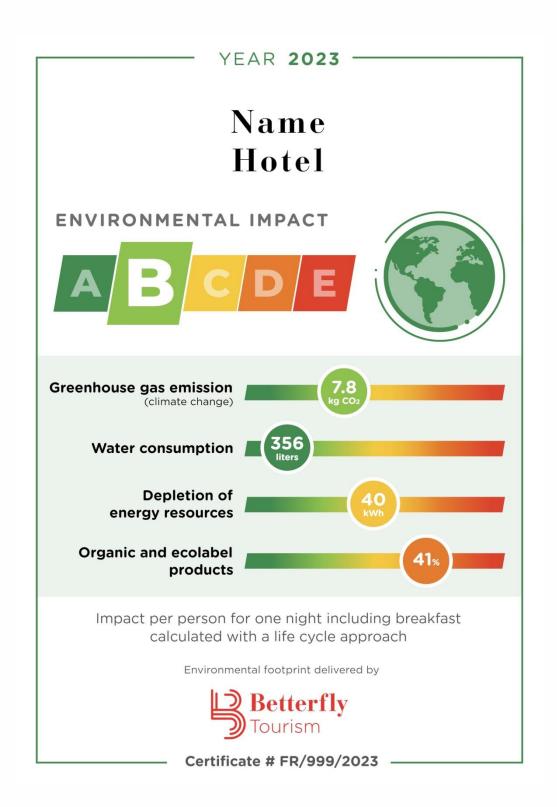# Introduction to environmental labelling

ENVIRONMENTAL LABELLING, AN IMPACT SCORE

- Indicates the environmental footprint of an overnight stay in tourist accommodation with breakfast
- Gives a grade from A to E

A RELEVANT, OBJECTIVE AND COMPARABLE ENVIRONMENTAL RATING

- Developed on the basis of the official ADEME reference framework and the Empreinte® database (formerly IMPACTS®)
- Calculated over the entire lifecycle of the bed and breakfast service, based on 4 indicators: carbon impact / water consumption / energy resource depletion / organic and eco-labelled products.
- Enabling establishments to embark on a continuous improvement process thanks to precise knowledge of their environmental impact
- Clearly and transparently informing travellers of the impact of their overnight stay in the establishment
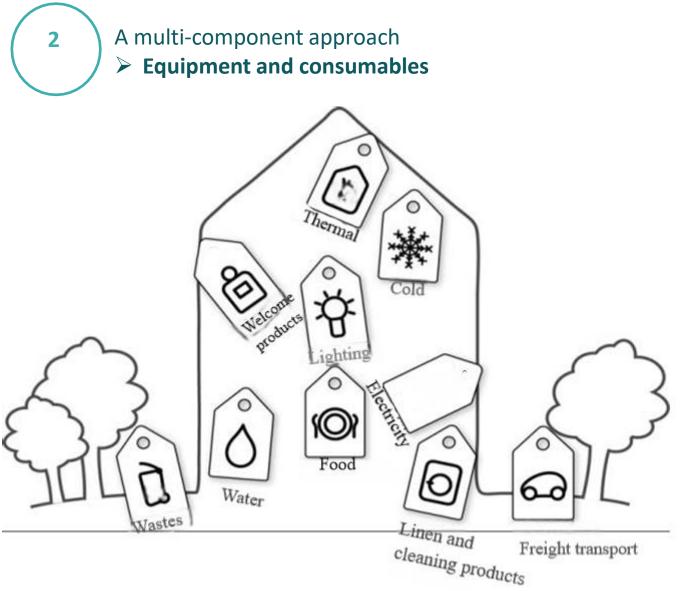- Official initiative supported by ADEME and the French Ministry for Ecological Transition

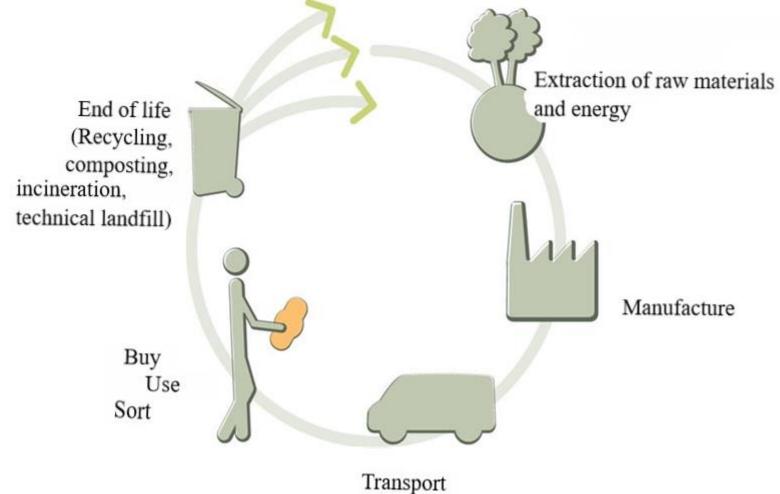**Betterfly Tourism is the only company to issue environmental labels for hotels and campsites**

YEAR **2023**

Name Hotel

ENVIRONMENTAL IMPACT

A B C D E

Greenhouse gas emission (climate change) — 7.8 kg CO₂

Water consumption — 356 liters

Depletion of energy resources — 40 kWh

Organic and ecolabel products — 41%

Impact per person for one night including breakfast calculated with a life cycle approach

Environmental footprint delivered by

Betterfly Tourism

Certificate # FR/999/2023

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The methodology of environmental labelling

1 A multi-stage approach
➢ **Life cycle analysis**

End of life (Recycling, composting, incineration, technical landfill)

Extraction of raw materials and energy

Manufacture

Buy Use Sort

Transport

2 A multi-component approach
➢ **Equipment and consumables**

Thermal
Cold
Welcome products
Lighting
Electricity
Water
Food
Wastes
Linen and cleaning products
Freight transport

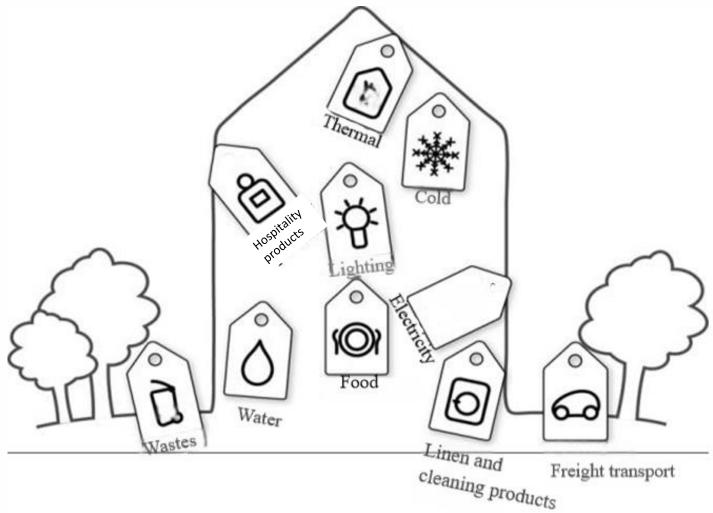**3** A multi-criteria approach
➢ **4 environmental indicators**

- Impact on climate change (CO_2) Life cycle water consumption
- Consumption of non-renewable resources
- % of actions in favour of biodiversity

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The perimeter studied for a hotel

Functional unit :
«Provide overnight hotel accommodation »

Included in the scope:

Items and rooms covered by the hotel accommodation service, breakfast and wellness area if includedin the overnight stay.

Electrical equipment, water (consumption and heating of domestic hot water), heating, ventilation and air conditioning, lighting, swimming pool/hammam/sauna/sports hall, green areas, transport for guests if offered, food purchases for breakfast, reception products, linen and cleaning products.

Excluded from the scope:

Restaurant, seminar room, bar, wellness area if not included in the overnight stay.

Swimming pools and balneotherapy equipment, employee transport, food purchases other than breakfast, leisure activities offered by the establishment..

The perimeter studied for a campsite

Functional unit :

« **Provide a one-night outdoor hotel service** »

Swimming pool/Aquatic area
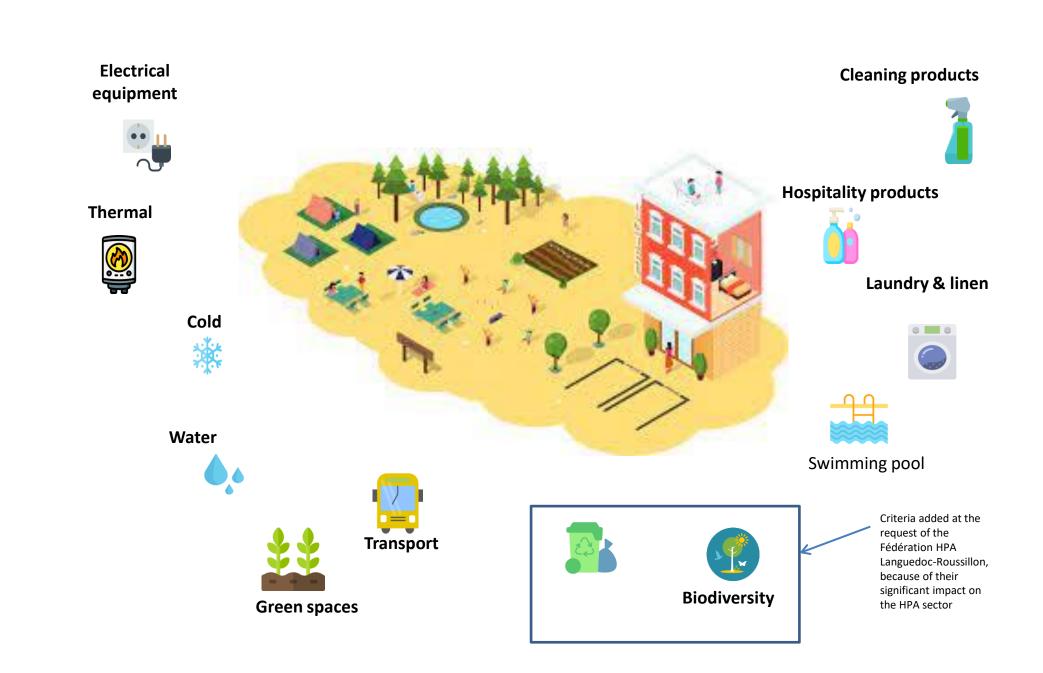
Rented accommodation
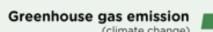
Bare pitches

Home

Green spaces

Sanitary blocks

Laundry

Ancillary paid services: restaurant, bar, wellness areas, bakery, grocery shop, etc. are not included in the analysis.

Electrical equipment

Thermal

Cold

Water

Transport

Green spaces

Cleaning products

Hospitality products

Laundry & linen

Swimming pool

Biodiversity

Criteria added at the request of the Fédération HPA Languedoc-Roussillon, because of their significant impact on the HPA sector

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Understanding the 4 environmental label indicators

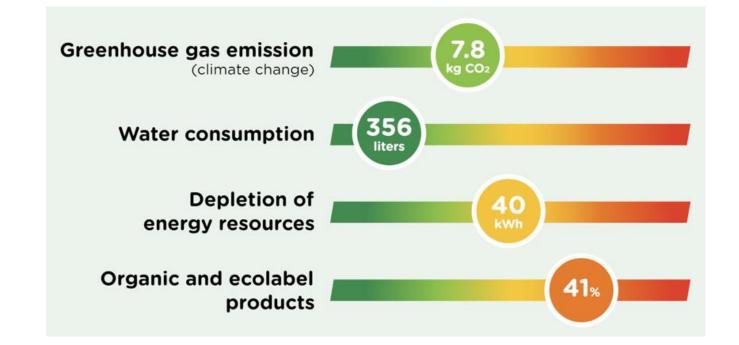|	
Greenhouse gas emission (climate change) — **7.8 kg CO₂** **Climate impact** expressed in kilograms of CO2 per person / overnight stay	Quantity of greenhouse gases (in kg CO2) emitted during a one-night stay in the labelled hotel, including : • greenhouse gases generated by the establishment's energy consumption, • emissions due to the manufacture, transport and end-of-life of equipment and consumables used in the hotel.
Water consumption — **356 liters** **Water consumption in life cycle** expressed in m3 per person / night	Average volume of water (in m3) consumed during a one-night stay in the labelled hotel. This includes water used for : • showers, baths, taps and WCs, laundry, etc. • services associated with the overnight stay (swimming pool, spa, etc.), • the manufacture of raw materials for equipment and consumables
Depletion of energy resources — **40 kWh** **Depletion of energyenergy resources** expressed in kWh per person/night	Depletion of natural resources (in kWh), such as mineral raw materials and fossil fuels, which come from deposits formed during the Earth's geological history and correspond to an exhaustible stock. • energy used for equipment, lighting, heating and air conditioning • raw materials for the manufacture of equipment and consumables
Organic and ecolabel products — **41%** **Organic and eco-labelled products** expressed as a percentage of products used	Proportion of ecological or organic products (as a % of the total mass of products used) used during a one-night stay in the labelled hotel. This takes into account consumables bearing an ecolabel or produced by organic farming, whether they are reception, breakfast or cleaning products used by the establishment.

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Understanding the colour of cursors

The colours of the cursors are displayed according to the indices per indicator.
Example for CO_2 (same values for the 3 other indicators):
- Indicator index below 35 = dark green
- Indicator index between 35 and <48 = light green
- Indicator index between 48 and <59 = yellow
- Indicator index between 59 and <77 = orange
- Indicator index above 77 = red

- Makes it easier for the establishment or consumer to understand whether it is a good C close to a B or a bad C close to a D
- Facilitates analysis by the consultant
- Visibility on immediate courses of action, at least for organic products and water
- Room for improvement at first: improve the colour of the cursors even before improving the score, as the school can take things one step at a time.

Accommodation standards (in France)					
Note bearings	A	B	C	D	E
Average overall index	< 35	35 - 48	48 -59	59 - 77	> 77
Indicator bearings					
Greenhouse gas emission (kg CO2)	< 6,3	6,3 - 8,64	8,64 - 10,62	10,62 - 13,86	>13,86
Water consumption (L)	< 385	385 - 528	528 - 649	649 - 847	> 847
Depletion of energy resources (kWh)	> 38,5	38,5 - 52,8	52,8 - 64,9	64,9 - 84,7	> 84,7
Organic and ecolabel products (%)	< 40,5	18,4 - 40,5	12,6 - 18,4	6,9 - 12,6	> 6,9

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Focus on the 3 life cycle indicators

Greenhouse gas emissions

related to energy and water consumption in the hotel; the manufacture and transport of electrical and electronic equipment; the manufacture and transport of consumables.

Life cycle water consumption

related to energy consumption in the hotel; the manufacture of electrical and electronic equipment; the manufacture of consumables.Also includes on-site water consumption: swimming pool, bathrooms and toilets in the accommodation area, water points in communal areas, etc.

Consumption of non-renewable resources

Depletion of the environment of non-renewable mineral and fossil resources such as natural gas, coal, oil, etc.Consumption of non-renewable resources linked to the consumption of energy and water in the hotel industry, the manufacture and transport of electrical and electronic equipment, and the manufacture and transport of consumables.

Examples of impacts in France (extract from the Winggy database - source ADEME)			
Unit	CO2 (kg)	WATER (m³)	RESSOURCES (kWh)
1 kWh Electricity	0,1058	0,0095	1,0096
1 kWh Natural gas	0,2610	0,0002	0,3482
1 m3 Mains water	0,1687	1,1354	1,4000
1 kg Electrical machinery and equipment	5,8433	0,2919	702,2281
1 kg Cotton	27,6548	6,1364	80,1860
1 kg Moisturising cream	1,7808	0,1365	11,1293
1 L Multi-purpose cleaning product	0,6866	0,0332	3,9849

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Focus on the organic and eco-labelled products indicator

The overall score, between 0 and 100%, is calculated on the basis of the average mass of labelled products made available by the establishment. The labels taken into account in the score are :

- Food :

- Reception products :

- Cleaning products :

- Textiles:

Source: https://agirpourlatransition.ademe.fr/particuliers/labels-environnementaux

The stages in the environmental labelling process

1 **Account activation on our WINGGY® software tool**

2 **Data collection and modelling by the establishment**
Data relating to the facility for year N-1 (surface area, attendance, services, equipment, etc.) and water and energy consumption (invoices)
- Excel document for data collection / completion of data in the software by the facility
- Verification of data by the Betterfly Tourism team

3 **On-site visit by a Betterfly Tourism consultant**
- Survey of equipment and consumables, interviews to find out about working habits
- Verification of data collected beforehand on site

4 **Publication of an environmental label and presentation of an action plan**
- Finalisation of data modelling in the software and validation of the environmental label by the Betterfly Tourism consultant.
- Analysis of the data according to the 4 indicators and presentation of an action plan for the establishment

5 **Monitoring points and label updates**
- Support for the accommodation in implementing the actions and annual updating of the label to assess the impact of the actions taken.

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Preparing for the audit

A few weeks before the audit : telephone meeting with the accommodation provider

30-minute to 1-hour meeting to set the audit date and duration (1 to 2 days recommended for the most complex establishments) and present the list of data to be collected by the hotel :

- General information
- Technical information on equipment
- Energy, water and linen bills
- Description of consumables installed

Explanation by the auditor of the essential data collection points Send audit schedule with details of interviews with department managers. Confirmation that a technical manager will be present on the day of the audit

A few days before the audit (D-14) : verification of documents received

- Follow-up for receipt of documents and additional information if necessary
- Verification of documents received
- Preparation by the auditor of additional questions to be asked during the audit
- Pre-modelling of the information received or verification of the data modelled by the establishment with the supporting documents sent
- Sending of an email to confirm the audit schedule and meetings with the various managers
- Preparation of audit equipment: guide, computer or tablet, bottle of water, graduated bucket and stopwatch for measuring flow rates, camera or mobile phone for taking photos, tape measure, etc.

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Examples of data to be collected upstream by the hotel

General information about the establishment and visitor numbers

Contact details, description, type of rooms, information about the building, number of rooms, number of days open per year, number of breakfasts per year, number of overnight stays...

Fluid consumption

Water and energy bills, type of heating, details of electrical or solar equipment, etc.

Textiles

Data on linen management in the establishment (hire, external cleaning, purchase and cleaning managed by the establishment), type of textile, size, weight, material, etc.

Consumables

Breakfast and hospitality products

Additional information

Office equipment, cleaning products for green spaces, refrigerant gases, etc.

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Our Winggy® interface

1

Visitor numbers
Annual attendance Other services

2

Building & business
Surface area of facility
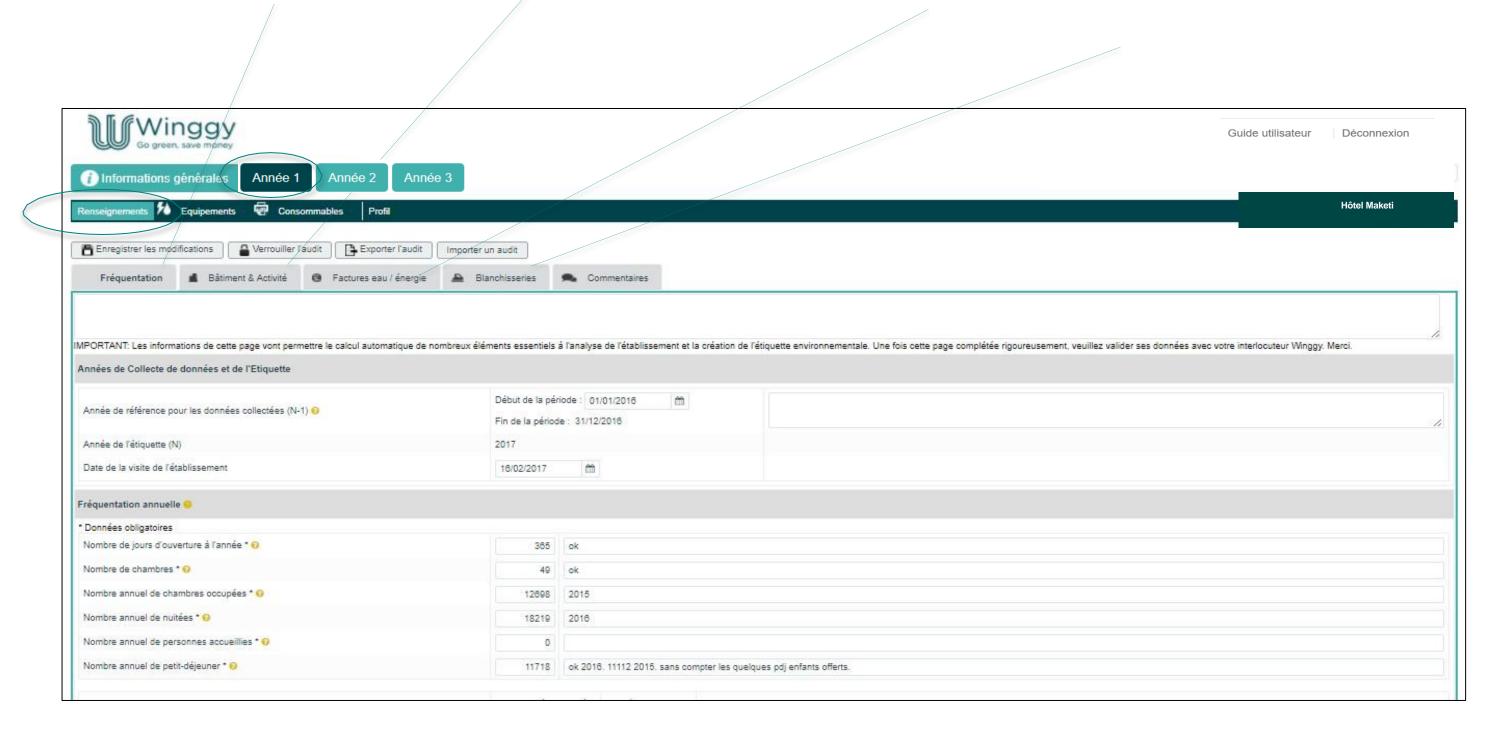
3

Water & energy bill
Hotel water and energy consumption

4

Laundries
Laundry data and consomption
This only applies to hotels that use an external laundry service to clean their linen.

On-site audit - typical day

Objective: to collect the information needed todraw up a balance sheet for the company

Day 1 : morning			
9h – 11h	**Interview with the General Manager** - Reminder of the objectives and context of environmental labelling and auditing. - Confirm the schedule for each interview with head of departments - Presentation of the hotel by the GM - Overview of the data collected beforehand and the ones to be collected on site - Quick tour of the establishment	General Manager	2h
11h-12h30	**Interview with the Maintenance Manager** - Presentation of the hotel technical operation by the maintenance Manager and question by the consultant - Tour of technical facilities - Discussions to identify best practices and solutions. - Topics covered: Heating, ventilation, air conditioning, lighting, green spaces, domestic hot water, swimming pools, refrigerant gases…	Maintenance Manager	1,5 h
Day 1 : afternoon			
14h-14h45	**Interview with the Breakfast Manager** Presentation of the Breakfast operating process, Discussions to identify best practices and solutions.	Breakfast Manager	45 min
14h45-15h30	**Interview with Housekeeping Manager** Presentation of the Room operating process, tour of the backoffice and laundry spaces to see the cleaning products, linen, cleaning equipments etc. Discussions to identify best practices and solutions.	Housekeeping Manager	45 min
15h30-17h30	**Hotel Audit by the conslutant (consultant can be autonomous)** - Breakfast spaces - 5 rooms from different categories on différent floors if possible : the consultant will make an inventory of the equipments and consumable in the room and measure waterflow (tap, showers and bath) - Tour of all public spaces and back office to make an inventory of consumables and equipments		2 h

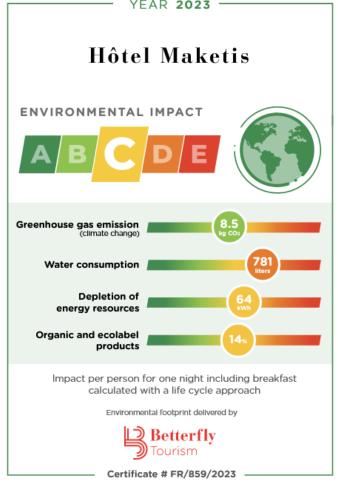**Lighting inventory**

Flow meter measurements

Energy audits

Data modelling verification procedure

1) Verification - General information / Information		
Objective: check attendance (nights) + energy and water allocation		
General informations		
Contact details completed		
Number of stars + Services completed		
Attendance		
Is the year of the label the current year 2024? On data collection 2023?		
Is the number of nights fair and consistent? (highest number among other attendance numbers)		
Report the number of nights here		
Other information completed and consistent? : Number of days, Number of rooms, Number of rooms occupied, Number of people accommodated, Number of breakfasts		
Automatically calculated data is consistent: CO, No. of people/ch, ...		
Attendance at other services: consistent data?		
Building & Activity		
Type of energy and equipment: completed and coherent		
Surfaces completed?		
Water/energy bill		
Water	**CHECKING WITH INVOICES**	
	Total gross consumption: completed and coherent?	
	Services outside the scope: Quickly check if exclusions make sense	
	Consumption Establishment: If manual result indicated, check if logical and why it is different from automatic calculation.	
	Establishment consumption (m3): Report the number of winggy here	
	Establishment consumption (L/night): Check if the number calculated on the right is consistent? *Value usually between 100 and 140 l/night for a high-performance hotel, 150/190 l for a mid-range hotel and more than 190 l for a poorly performing establishment. Beyond 250 l/night significant probability of leak. Swimming pool: allow between 25 and 60 liters more per person*	
electricity	**CHECKING WITH INVOICES**	
	Total gross consumption: completed and coherent?	
	Services outside the scope: Quickly check if exclusions make sense	
	Consumption Establishment: If manual result indicated, check whether it is logical and why it is different from the automatic calculation.	
	Establishment consumption (kWh): Report the number of winggy here	
	Establishment consumption (kWh/night): Check if the number calculated on the right is consistent?	

Validation of the label and report with action plan

Updating the label (N+1 and subsequent years)

1. **The Betterfly Tourism team makes contact with the establishment** to explain the update process

2. **Gathering information** on the basis of year n-1 :
   - **Water and energy consumption :** annual summary (last invoice of the year with summary)
   - **Annual attendance** : number of overnight stays, occupancy rate, number of rooms sold, etc.
   - **Annual quantities** : Laundry cleaning, swimming pool and green space maintenance products, refrigerant gases, etc.

3. **Updating information in Winggy® software** on the Information + Equipment + Consumables tabs

4. **Transmission of supporting documents to the consultant**
   - **Water and energy consumption :** Annual summary (last bill of the year with summary) or all bills for the year
   - **Summary of annual visitor figures**
   - **Annual linen summary + mail from the laundry**
   - **Photos or invoices for organic and eco-labelled products**

5. **Data verification** and the label validated by the Betterfly Tourism consultant

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