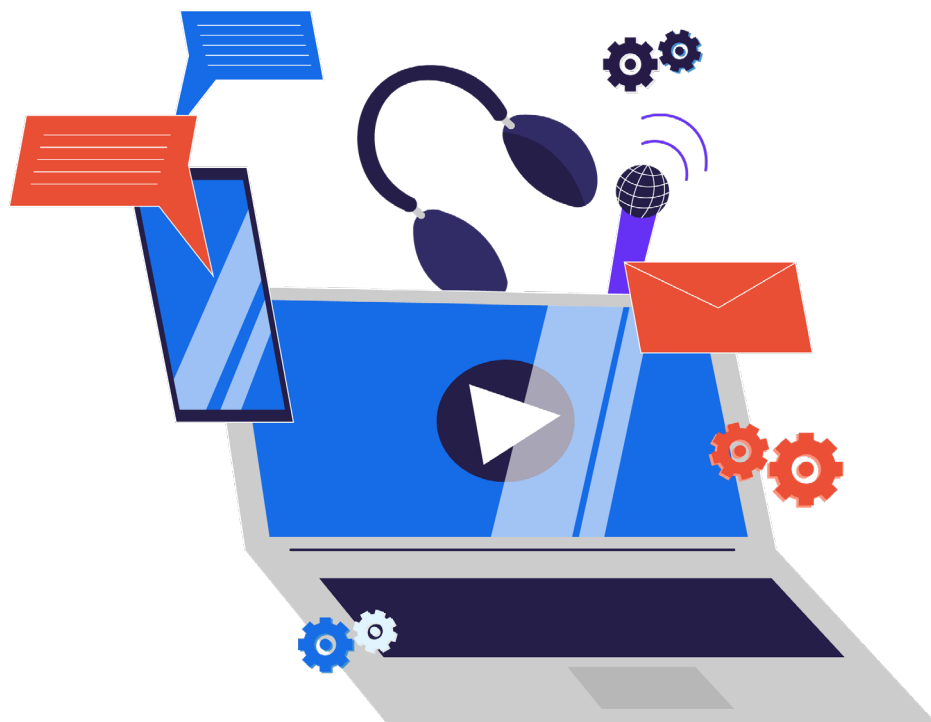


To better understand and choose methods for calculating the carbon footprint of your communication campaigns



Introduction

Climate change is no longer a scientific abstraction. It is now part of our daily life and reminds us that we urgently need to reduce greenhouse gas emissions rapidly and sustainably, as largely documented by the 6th IPCC Synthesis Report. This also applies to the communication sector, even if its carbon footprint remains moderate when compared with other industries. In addition, it plays a key role: it asks to reduce its own impacts, while highlighting more sober imaginaries and more responsible practices.

The multiplication of tools and frameworks recently developed by brands, agencies, media, and professional organizations has shown how important it is to have a strong and consistent carbon footprint calculation that is based on shared assumptions. Without this common foundation, it is impossible to efficiently pilot a reduction trajectory: comparison of heterogeneous data, interpretation of orders of magnitude, or identification of more relevant levers quickly become illegible. In response to this reliability and action challenge, Oneframe is designed as a transparent, evolving, and interprofessional meta-framework.

This edition published in March 2026 is the continuation as well as a new step of this approach. It now includes an additional marketing lever: emailing and newsletters. This chapter was jointly written by Alliance Digitale and Union des marques, in order to offer a common frame to estimate the carbon impact of these formats, which now represent a critical part of communication strategies. This 2026 edition also strengthens the harmonization of indicators and methods, as it integrates efforts from the SRI, ADMTV, Bureau de la Radio and SCRP. This convergence of sectoral frameworks is an extension of the initial ambition of Oneframe: offering the market a shared methodological basis that makes it easier to understand, compare and reduce impacts.

Like in previous versions, Oneframe does not replace existing calculators: it explains them, aligns them, and improves their reliability. It is part of a collective and open approach, supporting all brands and their partners, so that they can evolve together towards more responsible and controlled practices.

CALCULATION METHOD FOR THE CARBON FOOTPRINT OF COMMUNICATION CAMPAIGNS FOR BRANDS

1 Scope, Calculation Method, and Bias

Measurement Indicator of the Carbon Footprint:

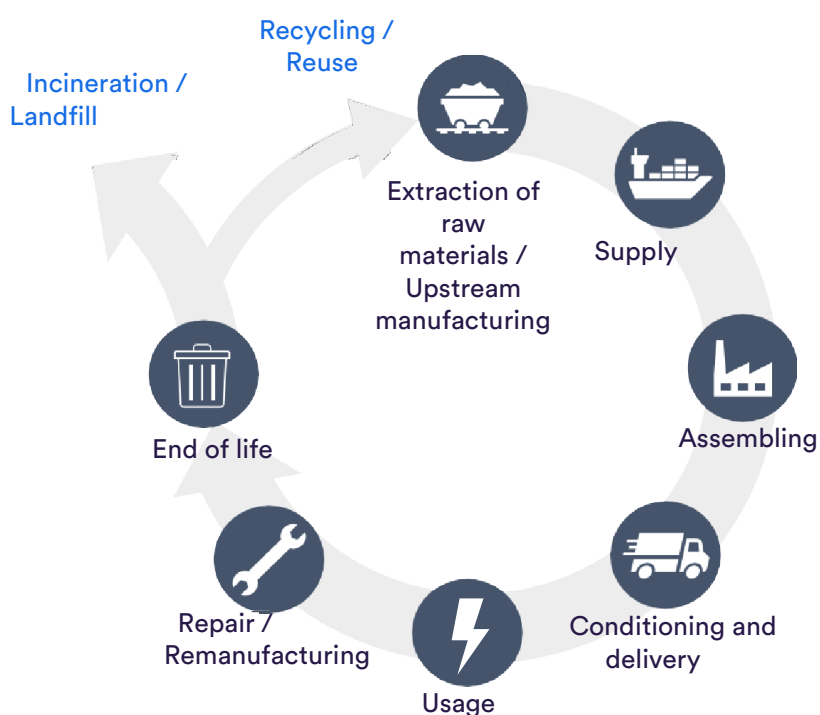
The best-known greenhouse gases (GHG) are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and the fluorinated gases, each having a different Global Warming Potential (GWP). This GWP is measured based on the carbon dioxide potential, which allows us to obtain a common unit: the CO₂ equivalent (CO₂e). The carbon footprint of communication campaigns is calculated based on this measurement.

A distinction is made between:

- **Direct GHG emissions**, i.e. within the direct scope of the studied entity – company, individual, territory – or product.
- **Indirect GHG emissions**, i.e. all emissions generated by the activities of the studied entity – company, individual, territory – or product. This is usually where most emissions are found. It is therefore essential to include the entire product or service lifecycle in the calculation.

Definition of Key Terms:

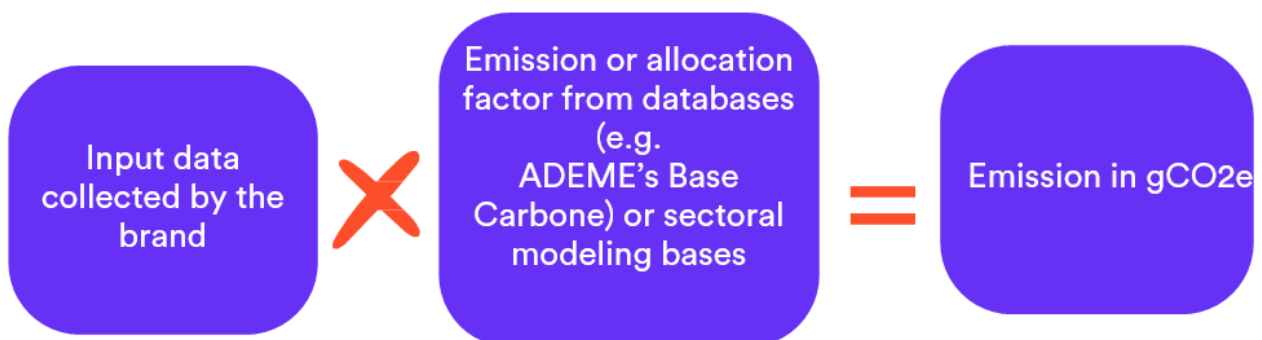
- **Functional unit:** a measurement unit that will be used for comparisons. Example: Display of an advertisement to 1000 contacts in a campaign.
- **Operational scope:** Activities included in the calculation regarding the functional unit. A measurement excluding part of this scope could appear more virtuous than a more exhaustive one. It is therefore essential to consider identical scopes so that they can be compared.
- **Scope covering the equipment lifecycle:** Although activities may be considered, they can only be partially included if only a part of their impacts is modeled. This is the case for manufacturing, assembling and distribution phases of display terminals, which are not systematically included in currently available calculators.



- **Input data and assumptions:** Input data are critical for the calculation. As the carbon footprint assessment is based on the analysis of material and energy flows, these input data must be based as much as possible on physical data to obtain a more precise measurement. The use of monetary data – as a last resort – introduces a lot of inaccuracies. When no input data is available, assumptions can be made. The purpose of a framework is notably to be able to harmonize a certain number of assumptions.
- **Allocation factors:** These factors are intermediate assumptions made to allocate a part of the impacts when the equipment included in the scope is shared. Example: Since a computer server can be used for several digital uses and, in particular, for several communication campaigns, it is not possible to allocate (impute) all impacts of a computer server to the studied campaign, and an allocation factor will be used to define the percentage to be considered. The allocation factor can be recommended in PCRs (product category rules) or sectoral frameworks. This is the case for TV or Digital, for instance. The choice of allocation factors can explain some differences in results obtained with currently available calculators.
- **Emission factors:** Input data are then multiplied by emission factors in order to be converted into carbon equivalent.
- **Database:** This is generally the emission factor data source, i.e. ADEME's Base Empreinte (Footprint Database) for France. To harmonize the measurements, it is also essential to document intermediate assumptions such as allocation factors. Documentation can be inhomogeneous or evolve quickly for specific topics (e.g. network energy efficiency).

Calculation Approaches:

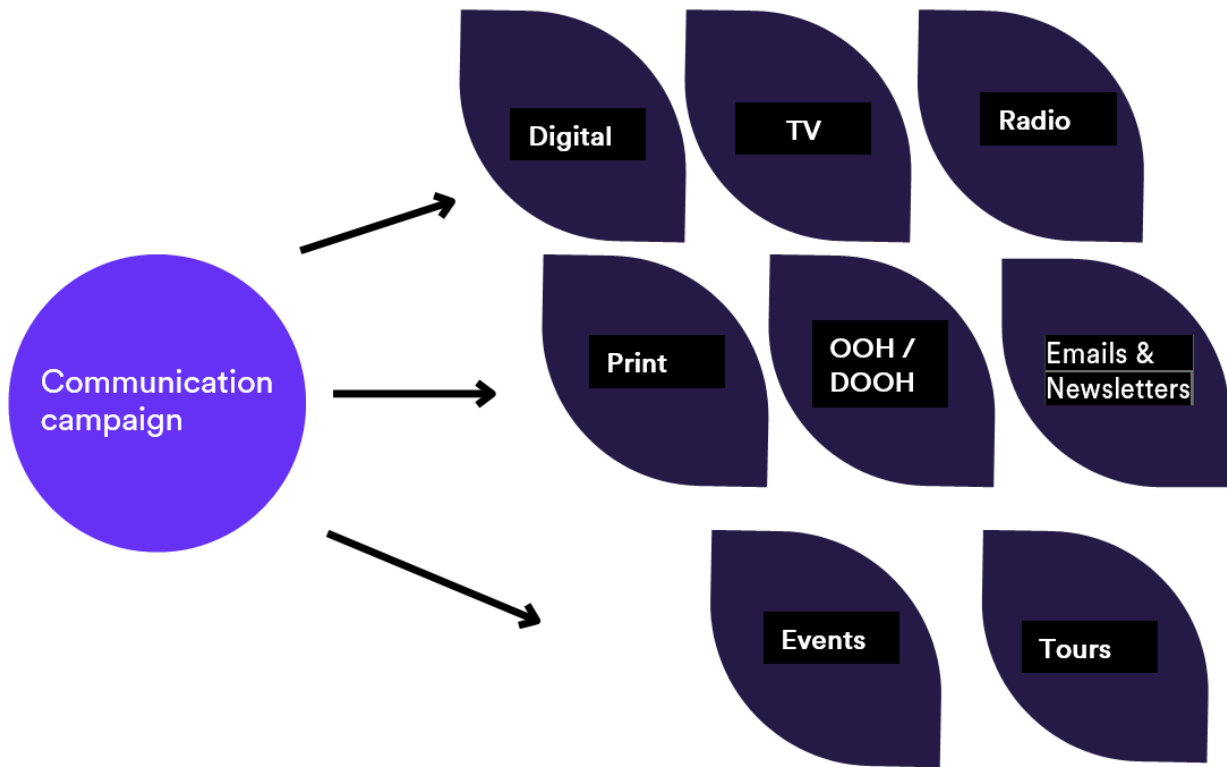
- **Organizational approach:** These methods provide the direct and indirect carbon footprints of the organization activities over a year. For example: Bilan Carbone®, GHG Protocol® or Organisation Environmental Footprint (OEF – multi-criteria but makes it possible to calculate the carbon equivalent).
- **Product/service approach:** These methods provide the carbon footprint of a product or a service, for a functional unit defining this service. For example: Empreinte Carbone Produit (ECP – equivalent to the lifecycle analysis focused on carbon impact only), Product Environmental Footprint (PEF – multi-criteria, but makes it possible to calculate the carbon equivalent). In the field of advertising, for example, the impact of a communication campaign roll-out is measured over three months.



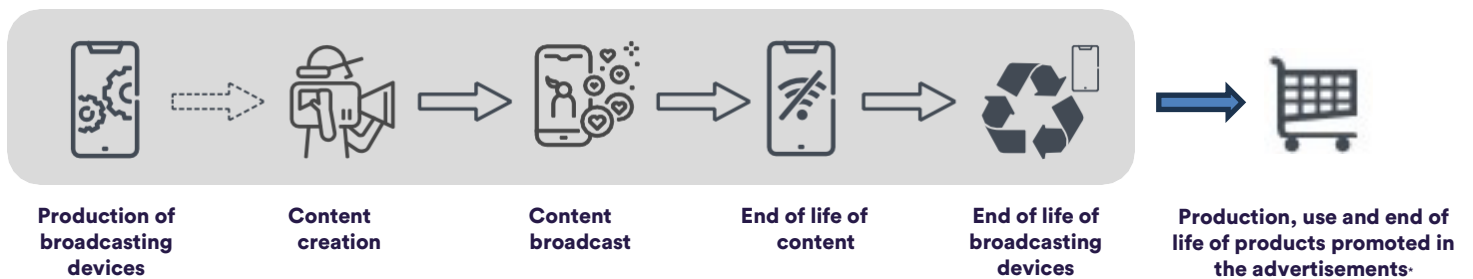
Input data collected by the brand

Scope

The Oneframe initiative version that is introduced today covers 8 levers used in communication. This corpus is intended to be enriched in future versions.



Calculations are based on the lifecycle of a communication campaign as defined by the ADEME:



* This step is not included in the campaign carbon impact calculation.

Key steps to calculate the carbon balance of communications campaigns:

- 1 / Choose the calculation method** according to the communication channel
- 2 / Decide** who will perform the calculation
- 3 / Collect** data
- 4 / Take stock of the** campaign based on the results

Choosing the right KPIs for the carbon balance:

Carbon balance indicators are essential for the result analysis. Interprofessional organizations representing digital media, TV, radio, and print have worked on common commitments to provide advertisers with the most relevant KPIs, which are described in the recommendations below.

Methods to Establish a Carbon Balance:

Three work options have been identified: They allow brands to identify the right tools and relevant players that could help them, in order to calculate the carbon footprint of each communication channel and aggregate the results to get an overall assessment.

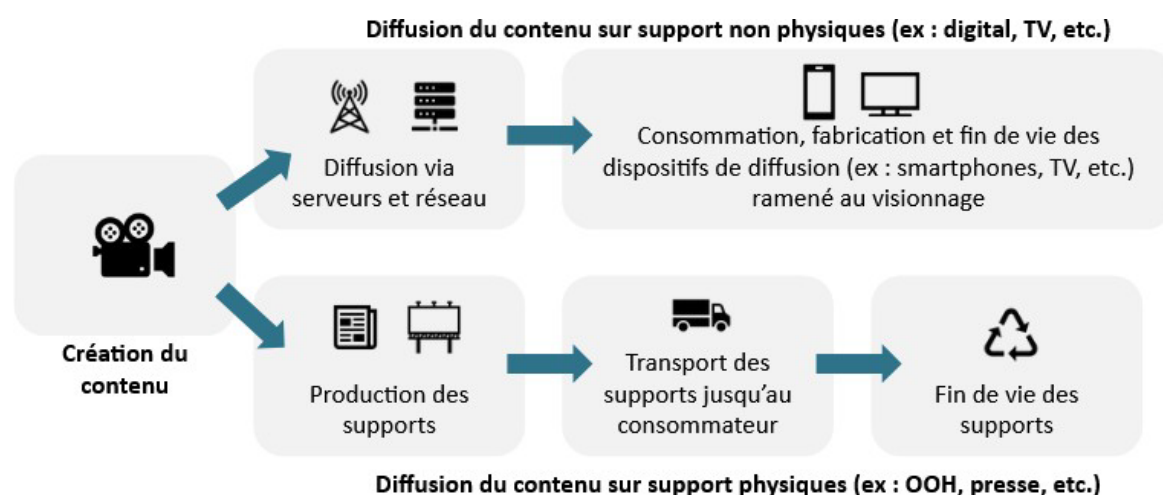
	Option 1 Creation of an ad hoc calculation tool developed internally, and covering all communication channels	Option 2 Involvement of a third party (e.g. agency, firm, SAAS platform, etc.) that has already developed its own calculation tool	Option 3 Use of reference calculation tools developed for each channel, and aggregation of the results
Main issues for the brand	<p>Be able to develop a calculation method in line with existing frameworks. For this, the brand must have the skills in-house to develop and maintain the tool.</p>	<p>Ensure that the third-party tool is in line with the scopes and methods of the existing frameworks for each communication channel, that it allows a unified process for all communication channels, and that it is able to challenge its partner.</p>	<p>Confirm with each media that it is able to collect data on each channel, and to organize and consolidate results in a report.</p>
Benefits	<p>An internal calculator that is modular according to data available on the brand side and to completed actions. The teams are autonomous.</p>	<p>No development required, since the tool <i>a priori</i> already exists (e.g. tools developed by agencies).</p>	<p>Data are collected and processed directly by the requested media. No tool development required since the impact calculation tools <i>a priori</i> already exist for each media (tools developed by the inter-professional association, or directly by the media).</p>
Disadvantages	<p>Development of a comprehensive tool. If the brand has no expertise internally, it will need some external support.</p>	<p>A calculation where result granularity has to be validated according to the tool. Data are collected and processed by the partner owning the tool. The expertise remains outsourced.</p>	<p>Since different entities are in charge of the calculations, the brand must use a dashboard to aggregate impact results as well as business indicators related to the campaign. Granularity may vary depending on the tools that are used.</p>

2 Panorama and Analysis of Calculation Methods from Production to Broadcast

Scope to be Included in Impact Calculations:

For each campaign, the impact calculation must consider all broadcasting channels and media, from the creation of contents to their broadcast.

The diagram below details differences to be considered between physical and non-physical broadcasting media. The way each step is modeled based on the existing frameworks is detailed thereafter.



1 / Content Creation

Content creation refers to all production steps occurring upstream of the campaign roll-out: audio, video, image content. A campaign can include multiple contents resulting from different creative processes. Conversely, the same content can be used for several successive campaigns and broadcasted on several types of media.

Impacts to be measured:

- Transport of equipment and persons (media, teams)
- Consumption of energy and consumables (food, makeup, decors, etc.)
- Use of services and equipment
- Waste production

ecoproduct



Studied framework: Ecoproduct Carbon'Clap v2

Characteristics of the framework:

- This framework has been **developed by [the Ecoproduct association](#)**, led by Workflows with many professionals from the audiovisual, film and advertising production sector. Created in 2012, **it has been updated in 2022 and released March 9th, 2023**. It was recently approved by the CNC.
- Carbon'Clap includes a methodology detailing calculations carried out according to the input data and an open-source measurement tool allowing to assess GHG emissions generated by the content creation.
- This tool is available free of charge and accessible upon registration. A more detailed and customized dashboard is also available as a complement in the member area, for members of the association only. It provides a real-time monitoring assessment.

Scope covered by the framework:

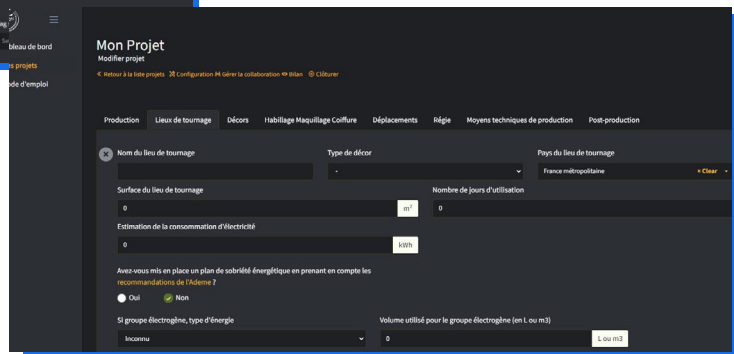
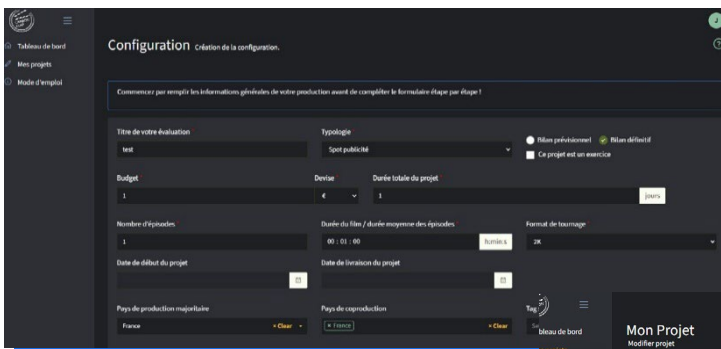
- This framework includes the GHG emissions of an **audiovisual, cinematographic and advertising production** that are associated with its manufacturing, from the preparation phase to the ready-to-broadcast status. The animated production will be released in fall 2023.
- Emissions covered in the content creation process are as follows:

Production	Tournage						Post production
	Lieux de tournage	Décor	Habillage Maquillage Coiffure	Déplacements	Régie Hébergement Restauration	Moyens techniques Prises de vues et éclairages Car loges Véhicules pour prise de vue	

- It makes it possible to make a provisional balance upstream of production as well as a final balance with proven data.

	Option 1 Creation of an ad hoc calculation tool developed internally	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	Use the results as input data for the Carbon'Clap measurement tool via an API in the calculator developed in-house.	Partner tool (to be defined, for example tool developed by the advertiser's agency), including compatibility of scope, modeling and input data to be validated	Carbon'Clap tool used by the production teams, to which the brand accesses as a collaborator
Emission or allocation factors to be used	Carbon'Clap factors and models from ADEME databases and sectoral data (modeled by Ecoprod)	Factors and models of the partner tool (robustness of the sources to be validated)	Factors and Carbon'Clap models from ADEME databases and sectoral data (modeled by Ecoprod)
Input data to be integrated	<p>Production characteristics: Type of content, length, budget, number of days, country of shooting, production, and post-production, etc.),</p> <p>Physical activity data (km traveled by the teams, energy consumed to power the technical means, filming and production locations, produced waste, consumables used)</p> <p>Monetary data from the production cost estimate for remaining data (services, insurance, film sets, clothing, hairdressing, makeup, equipment rental and other services)</p> <p>Campaign recurrence: Number of campaigns using the content</p>		
Who does organize the input data collection?	Brand's production teams	Partner	Production teams

<p>Where are the main input data collected?</p>	<p>Production cost estimates and filming activity data available from the production teams</p>
<p>Output indicators to be monitored by the brand</p>	<p>Impact of content creation for a campaign (kgCO₂e_{crea}) – It is interesting to monitor this indicator for each campaign, i.e. by dividing the impact of content production by the number of campaigns for which it will be reused without reshooting.</p> <p>Impact of content creation per contact reached by the campaign (kgCO₂e_{crea}/contacts) – The concept of contact depends on each media and will be defined later</p> <p>Impact of content creation per € spent on this creation (kgCO₂e_{crea}/k€)</p> <p>Impact of content creation per minute of produced content (kgCO₂e_{crea}/min)</p> <p>Impact of content creation per day of shooting (kgCO₂e_{crea}/days)</p>



Screenshots from the Carbon'Clap tool for data collection

APPLICATION EXAMPLE

Brand X carries out a multimedia advertising campaign entitled XX. It has been broadcasted on different radios (NRJ, Sky Rock, Radio Nova, France Inter, etc.) for one year.

The advertisement length is 5 seconds (audio provided in the required format by radios). The communication team wishes to calculate the carbon footprint of the radio/audio broadcast of this campaign. The Oneframe methodology thus suggests to turn to the

BDR framework. As it is not possible to have direct access to this framework, radio media will have to be requested. Moreover, since a media agency Y has been commissioned for this campaign, this agency holds most of the information defining this campaign: broadcast country, audience, broadcasting radio, etc.

Putting into practice the calculation of the carbon footprint of content creation

Use of a partner tool (option 2)

Input data to be integrated	<p>As most input data (travels related to filming, purchases, etc.) are integrated in the agency's calculation tool to which the brand refers, the input data to be collected is only the CO₂ impact of content creation, directly sent by its interlocutor.</p> <p>To carry out some checks and identify reduction levers, it is interesting to collect details of this measurement provided by item (at least main items).</p>	<p>Value examples:</p> <ul style="list-style-type: none"> • Total CO₂e for filming and production: 20.1 tCO₂e • Breakdown by emission category: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Emissions (tCO₂e)</th> <th style="text-align: center;">Emissions (%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Travel related to filming</td> <td style="text-align: center;">15.2</td> <td style="text-align: center;">76%</td> </tr> <tr> <td style="text-align: center;">Energy (generators)</td> <td style="text-align: center;">3.1</td> <td style="text-align: center;">15%</td> </tr> <tr> <td style="text-align: center;">Other items</td> <td style="text-align: center;">1.8</td> <td style="text-align: center;">9%</td> </tr> <tr> <td style="text-align: center;">TOTAL</td> <td style="text-align: center;">20.1</td> <td style="text-align: center;">100%</td> </tr> </tbody> </table>		Emissions (tCO ₂ e)	Emissions (%)	Travel related to filming	15.2	76%	Energy (generators)	3.1	15%	Other items	1.8	9%	TOTAL	20.1	100%
	Emissions (tCO ₂ e)	Emissions (%)															
Travel related to filming	15.2	76%															
Energy (generators)	3.1	15%															
Other items	1.8	9%															
TOTAL	20.1	100%															
Emission or allocation factors to be used	<p>Models and allocations are implemented directly in the calculator of the requested agency. The brand must first confirm that these calculations have been carried out on a calculator that complies with the Ecoprod/Carbon'Clap framework.</p>																
Who does organize the input data collection?	<p>The brand has appointed someone in charge of the data collection. This person collected data from the campaign manager in the agency.</p>																
Where are the main input data collected?	<p>The agency sends the calculation of the carbon impacts directly to the brand.</p>																
Output indicators to be monitored and findings	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> • Impact of creation of campaign content (kgCO₂e/crea) • If provided (ideal): Breakdown of impact (kgCO₂e/crea) by emission category • Impact of content creation per contact reached by the campaign (kgCO₂e/crea/contacts) – The concept of contact depends on each media and will be defined later. • Impact of content creation per € spent on this creation (kgCO₂e/crea/k€) • Impact of content creation per minute of content produced (kgCO₂e/crea/min) • Impact of content creation per day of shooting (kgCO₂e/crea/days) <p>Findings:</p> <ul style="list-style-type: none"> • Impacts are mainly related to air travel by the film crew. Think about the filming location, the type of transport, pooling and optimization of production (photos, videos, etc.). • Using a less carbon-intensive energy source can have a significant impact. 																

2 / Digital Advertising

Digital advertising refers to advertisements broadcasted on digital media operated by any type of players: publishing and news, video streaming, retail and services, TV and radio, social networks, etc.

There are various formats and content types: traditional display (image, text), video, audio or native, conventional social (image, photo, text) or video.

Content is viewed on broadcast terminals (smartphones, computers, tablets, TV screens, etc.). It is stored on servers and transmitted via Internet networks (WiFi, 4G, 5G).



PÉRIMÈTRE DU SOCLE COMMUN			V1 (octobre 21)	V2 (avril 23)
ANNONCEURS & AGENCES MÉDIA : Stratégie de communication				
PRODUCTION DU CONTENU : Agence créatives, tournage, etc				
AVANT DIFFUSION & ENVIRONNEMENT PUBLICITAIRE : Commercialisation, media planning, ciblage (DMP), DCO				
ATTRIBUTION DE L'ESPACE PUBLICITAIRE & ANALYTICS (SSP, DSP, ETC.)	FONCTIONNEMENT ADTECH			
	SERVEURS PROGRAMMATIQUES	●	●	
	SERVEURS AUTRES*		●	
	RÉSEAUX	●	●	
DIFFUSION DE LA PUBLICITÉ	FONCTIONNEMENT RÉGIE			
	SERVEURS	●	●	
	RÉSEAUX	●	●	
	TERMINAUX	●	●	
TRACKING TIERS : SOLLICITATION DES SERVEURS ADTECHS ET DES RÉSEAUX				
POST-CLIC : Landing site / app, analytics				

* Les serveurs « autres » renvoient aux serveurs mobilisés pour les usages hors enchères et diffusion (reporting, machine learning, back-end...)

□ Hors périmètre ● Prise en compte de l'utilisation uniquement ● Prise en compte de l'ensemble du cycle de vie

Impacts to be measured:

- The entire lifecycle (manufacturing, energy consumption and end of life) of servers, networks, and terminals involved in the broadcasting of advertisements.
- The entire lifecycle (manufacturing, energy consumption and end of life) of servers, networks, and terminals of third-party players for selling programmatic broadcasting space. To assess mainly interactions of DSPs and SSPs included in the programmatic chain, to be accounted for according to the number of implemented “active paths” and optimizations made – See the detailed framework for more information.

Framework studied for this media:

- SRI & Alliance Digitale framework for the calculation of the carbon footprint generated by digital campaign broadcasting, [V2 \(04/2023\)](#).

Characteristics of the framework:

- This framework was co-developed with players involved in the digital broadcast chain, led by the Syndicat des Régies Internet (SRI). It is based on the latest methodological standards (PCR ADEME) and has been submitted to a consistency study with other frameworks on the same topic.
- The framework includes a methodological guide that defines the principle and the scope of the carbon footprint calculation for a digital campaign, as well as a database with average factors allowing an impact calculation based on data.
- It is open-source and updated on a regular basis regarding the scope considered and emission factors used.

Scope covered by the framework:

- Manufacturing, use and end of life of servers and networks used for space allocation (full lifecycle).
- Manufacturing, use and end of life of servers and networks used for broadcasting advertising content to the user terminal (full lifecycle).
- Manufacturing, use and end of life of user terminals (full lifecycle). Their weight is particularly significant in the overall footprint of a digital advertising.

This framework was mainly developed in collaboration with players in traditional display and video. It is therefore the most suitable for these formats, but it is compatible with the other ones.

	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	<p>Calculator developed internally using the calculation mechanics and the database of SRI & Alliance Digitale. Use of SRI & Alliance Digitale database, which provides models for the market and specifiable data with default averages according to three levels of precision.</p> <p>A priori, the brand will only be able to retain the lowest level of precision (level 1, maybe 2). It will have to see with media involved how to get a more precise calculation.</p>	<p>Partner tool (to be defined) (e.g. tool developed by the advertiser's agency), including compatibility of scope, modeling and input data to be ideally validated with an external audit of the tool.</p>	<p>Tools developed by the digital media for each broadcast media – The brand will be able to select the few media to be requested, which account for 80% of its printing volumes for the campaign.</p> <p>Its advantage: Availability of more granular elements that are specific to the digital media chain (e.g. optimization of active paths, etc.)</p>
Emission or allocation factors to be used	<p>Average factors and modeling from the SRI & Alliance Digitale database for data in common with the market and level 2 and 3 default data.</p>	<p>Partner tool factors and modeling (SRI & Alliance Digital compatibility to be validated)</p>	<p>Third-party tool factors and modeling (SRI & Alliance Digital compatibility to be validated)</p>
Input data to be integrated	<p>By format broadcasted during the campaign</p> <ul style="list-style-type: none"> • Total number of prints • Breakdown of prints by country (%) • Breakdown of prints by broadcast terminal type (%) • Content viewing time (time of exposure for the display and length of the spot x completion rate for the video) • Weight of broadcast content (KB) • Over-the-counter mode of sale without competition or programmatic 		
Who does organize the input data collection?	Internal team of the brand	Partner	Media or agencies concerned
Where are the main input data collected?	<p>Main data are found in the campaign reports. Possibility of dynamic collection for some elements, via analytic tools.</p>		
Output indicators to be monitored by the brand	<p>Total impact of digital broadcasting (kgCO₂edigital)</p> <ul style="list-style-type: none"> • Breakdown of impact (kgCO₂edigital) by digital third-party and by digital phase (servers – programmatic, networks – programmatic, servers – broadcasting, networks – broadcasting, terminals – broadcasting) • Breakdown of impact (kgCO₂edigital) by phase of digital broadcasting lifecycle (manufacturing and end of life, use) • Impact of digital broadcasting per contact reached by the campaign (gCO₂edigital/1000contacts) – for digital, contacts are defined by the number of prints. • Impact of digital broadcasting per € spent on this broadcast (kgCO₂editigal/€) • Impact of digital broadcasting per second of broadcast content (tCO₂edigital/s) 		

APPLICATION EXAMPLE

Brand X carries out a multimedia advertising campaign entitled XX. It is broadcasted for one year on several digital channels:

- **Pure player websites** (Leboncoin...) / Display (native format)
- **Press media** (20 min, Le Monde, Instagram, Point...) / Display (header)
- **Digital TV media websites** (TF1, M6) / 30-second video pre-roll
- **Social Networks** (Facebook, Youtube) / 20-second video.

The communication team wishes to calculate the carbon footprint of the digital broadcast for this campaign. It has a tool built on the SRI measurement framework, with a level 2 granularity as defined, thus allowing a good measurement granularity.

Since a media agency Y has been commissioned for this campaign, this agency holds most of the information needed for a proper calculation of the impacts.

Putting into practice the calculation of the carbon footprint of digital broadcast

Creation of an ad hoc tool by the brand (option 1)

Input data to be integrated	<p>Level 1</p> <ul style="list-style-type: none"> ● Total number of prints ● Breakdown of prints by broadcast terminal type (%) ● Content viewing duration in s (time of exposure for display and length of the spot x completion rate for the video) ● Weight of broadcast content (KB) ● Number of campaigns in programmatic or in over-the-counter sale mode <p>Level 2</p> <ul style="list-style-type: none"> ● Breakdown of prints by country (%) ● Breakdown of prints by network (fixed/mobile) (%) 	<p>Examples of values</p> <ul style="list-style-type: none"> ● 200 million prints including 50 million in static (display) and 150 million in video (different lengths) ● Breakdown: 55% smartphones, 35% PCs, 10% tablets. ● As far as display is concerned, exposure duration cannot be collected, and it is estimated with a market average of 10 seconds. Completion rate is not monitored, and it is modeled 100% on videos (default value). ● Weight of display formats: 100 KB ● Weight of display formats: Modeled with an average bitrate of 1.1Mb/s, allowing video lengths to be considered. ● 100% programmatic ● Breakdown of prints by country: 50% France, 25% country of broadcast (%) Belgium, 10% Spain, 10% Poland, 3 % Italy, 1% Romania, 1% Luxembourg. ● 90% of broadcast on fixed network, 10% on mobile.
Emission or allocation factors to be used	<p>Models and allocations are implemented directly in the brand's calculator, in line with the SRI recommendations:</p> <ul style="list-style-type: none"> ● The impact of servers and networks is estimated according to the used bandwidth (proportional to the weight of formats and the number of prints) ● The impact of terminals is estimated according to the time of use of terminals (proportional to the weight of formats and the number of prints) <p>The emission factors used are those aggregated by the SRI V2.1. standard. The brand has therefore updated its calculator.</p>	

<p>Who does organize the input data collection?</p>	<p>The brand has appointed someone in charge of the data collection. This person collected data from the campaign manager in the agency.</p>
<p>Where are the main input data collected?</p>	<p>Main data are present in the campaign reports: The agency has sent campaign reports per country, which included, among other things, digital data (number of prints per country, breakdown of terminals, etc.). The weight of created content was measured directly on files sent by the creative agency. Missing data have been estimated by the brand managers (exposure time).</p>
<p>Output indicators to be monitored and conclusion</p>	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> ● Total impact of digital broadcasting (kgCO₂edigital) ● Breakdown of impact (kgCO₂edigital) by digital third-party, by digital phase (servers – programmatic, networks – programmatic, servers – broadcast, networks – broadcast, terminals – broadcast) ● Breakdown of impact (kgCO₂edigital) by phase of digital broadcasting lifecycle (manufacturing and end of life, use) ● Impact of digital broadcasting per contact reached by the campaign (gCO₂edigital/1000contacts) – for digital, contacts are defined by the number of prints ● Impact of digital broadcasting per € spent on this broadcast (kgCO₂edigital/€) ● Impact of digital broadcasting per second of broadcast content (tCO₂edigital/s) <p>Findings:</p> <ul style="list-style-type: none"> ● In this campaign, manufacturing of terminals is the major source of carbon impact. To reduce the weight of the campaign, measurement of the exposure time must be more precise, and unnecessary prints have to be reduced. ● The network impact is also significant. Optimization can be found on the video quality. ● Lastly, encouraging over-the-counter sale modes can limit the use of servers and networks before broadcasting.

3 / TV advertising

TV advertising refers to advertisements broadcasted on media and TV platforms: live (linear, segmented, and live digital TV), deferred or on demand (BVOD).

Broadcast media are viewed on broadcast terminals (mainly televisions), stored on servers, and transmitted via Internet networks (DTTV, satellite, IPTV, segmented TV, WiFi, etc.).

Impacts to be measured:

- Energy consumption
- Production



Framework studied for this media:

- ADMTV [frameworkV2 \(2025\)](#)

Characteristics of the framework:

- This framework was co-developed with the involvement of ADMTV member TV media, TV broadcasting channel players and carbon impact measurement players, led by the national union for television advertising (ADMTV, Alliance Des Médias TV & Vidéo). It is based on the most recent methodological standards (RCP ADEME) and on the technical expertise of players in the sector. It is also built with the digital framework of the SRI / Alliance digitale (Digital Carbon Framework).
- The framework includes a guide that defines the scope of calculation as well as the models used to calculate the carbon footprint of a TV campaign, and a database with average factors allowing an impact calculation based on input data.
- It is available exclusively to ADMTV members. The framework is integrated into a tool developed by DK and used by all ADMTV member media to calculate the carbon impact of their campaigns. ADMTV recommends using DK API for carbon calculations. Indeed, this platform is a turnkey tool for systematic and reliable measurements:

Based on a strong methodology complying with national and international frameworks

- A model fed by confidential and average data from publishers and media for increased reliability
- A unique tool that cross-analyses ADMTV data with campaign data for a reliable measurement, available directly via an API
- Regular revisions and updates of data and methodological assumptions, which are directly implemented in the DK tool.

Scope covered by the framework:

The scope takes into account servers and networks that are used when broadcasting advertising content on the user terminal.

Following data are included in the calculation:

- Manufacturing, use and end of life of user terminals (full lifecycle).
- Their weight is particularly significant in the overall footprint of a digital advertising.
- Manufacturing, use and end of life of servers and networks (full lifecycle).

Lifecycle phases	Servers	Networks	Terminals
Upstream (manufacturing, distribution)	Included	Included	Included
Usage	Included	Included	Included
End of life	Included	Included	Included

	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	<p>Since used databases are only partially available in open-source, brands, agencies, or other players wishing to develop their own multichannel tool will have to:</p> <p>a. Integrate the results of the common tool developed by the ADMTV directly into the input data of their own calculator (paid access – DK platform license); collection is possible via a dedicated API.</p> <p>b. Exchange with the ADMTV the access to a part of data from average media owning the ADMTV. Some data, such as impact values of terminals, servers and digital networks are available free of charge, which will allow to rebuild the calculation mechanics based on a freely accessible methodology (see previous link to ADMTV framework).</p> <p><i>Case a. involves using a gross carbon result, with no granularity, in its own calculator. In this case, the option to collect via an API could allow a more efficient automatic processing if tools are interconnected (to be implemented).</i></p> <p><i>Case b. requires some background work to rebuild used data, in order to make the calculator compatible with the framework.</i></p>		<p>Call upon TV media that have access to the common ADMTV tool (DK platform) or their own tool.</p> <p><i>Option 3 remains the most precise and up-to-date option (media specific models are considered), but it requires a separate processing for each media – which is inefficient for advertisers.</i></p> <p><i>The brand will be able to select some media to be requested, which account for the biggest portion of printing volumes for the campaign.</i></p> <p><i>The advantage is the possibility to have media channel-specific data with a higher granularity (e.g., real average rate, etc.).</i></p>
Emission or allocation factors to be used	<p>In case a., factors and models are managed directly by the third-party tool (no access to the emission factors of the ADMTV database).</p> <p>Case b. requires some background work to rebuild used data, in order to make the calculator compatible with the framework (access must be requested).</p>		<p>Factors and models are managed directly by the third-party tool (results of the common ADMTV tool; No access to emission factors in the ADMTV database).</p>
Input data to be integrated	<p>Per format of broadcasted spot, during the campaign in linear TV, digital, BVOD and/or segmented TV</p> <p>GRP4+ audience of the spot (and then a conversion between GRP and total audience)</p> <p>Number of broadcasts of the spot</p> <p>Spot length</p> <p>Note: Country of broadcast is not requested. The current TV calculator has been developed for France. An adaptation is under development for other countries, but it requires confirming the breakdown of broadcast networks (DTTV, satellite, etc.).</p>		

Who does organize the input data collection?	Brand	Partner	Media concerned
Where are the main input data collected?	The media or their DK partners must specify if the advertiser or its partner wishes a direct integration of the tool results.		
Output indicators to be monitored by the brand	<p>Indicators recommended by ADMTV:</p> <ul style="list-style-type: none"> • Total impact of TV broadcast (kgCO₂etv) • Breakdown of TV broadcast impact by digital third-party (kgCO₂etv) • Breakdown of impact by lifecycle phase (manufacturing and end of life of servers, networks and terminals, use of servers, networks, and terminals) of TV broadcast (kgCO₂etv) • TV broadcast impact per contact reached by the campaign (gCO₂etv/1000contacts) – <i>For TV, contacts are defined by the 4+ audience of the spot</i> • Impact of TV broadcast per actually viewed second (kgCO₂etv/second viewed) – <i>Indicator allowing a weighting by completion and visibility</i> 		

APPLICATION EXAMPLE

Brand X conducts a multimedia advertising campaign entitled XX. It has been broadcasted on different TV channels (TF1, TMC, F2, F3, M6, W9, C8, BFM, L'Equipe, etc.) for one year.

The length of the advertisement is 40 seconds (video provided in the required format by channels). The communication team wishes to calculate the carbon footprint of the TV broadcast of this campaign. Oneframe methodology thus advises using ADMTV framework.

As there is no possible direct access to this framework, TV channels will have to be called upon.

Moreover, the media or agency Y, which has been commissioned for this campaign, holds most of the information necessary for a proper calculation of impacts.

Practical application of the carbon footprint calculation for TV broadcast

Use of tools developed by each channel (option 3)

Input data to be integrated	<p>As most input data (audience, broadcast duration, etc.) are integrated in the media and/or agency calculation tool to which the brand refers, there is only one input data to be collected: CO₂e impact of TV broadcast sent by its interlocutor (possibly by channel). This impact will be integrated by the brand alongside other media.</p> <p>To conduct some checks, it is interesting to collect as well:</p> <ul style="list-style-type: none"> • The details of this measurement provided by the media/agencies: by country, by digital third-party, by broadcasting mode • The campaign GRP by country (possibly by channel), or ideally the audience • CO₂e impact for 1000 contacts (possibly by channel) 	Value examples:			
		Total CO ₂ e of the TV broadcast over the period considered: 150 tCO ₂ e over 1 year Breakdown by country (audience and impact) over the period considered			
			France (all channels)	Belgium (all channels)	Luxembourg (all channels)
		Audience (millions)	139	100	50
		Carbon impact (tCO ₂ e)	38.9	36.0	36.1
	Impact for 1000 contacts (gCO ₂ e/1000 contacts)	280	360	722	
Emission or allocation factors to be used	Modelings and allocations are implemented directly in the calculator of involved players. However, the brand must first confirm that calculations are made on a calculator that complies with the ADMTV framework, preferably the DK API and/or tool.				
Who does organize the input data collection?	The brand has appointed someone in charge of the data collection. This person collected data from the campaign manager in the agency.				
Where are the main input data collected?	The media or DK must be asked if the advertiser or its partner wishes a direct integration of the tool results.				

<p>Output indicators to be monitored and findings</p>	<p>Indicators recommended by ADMTV:</p> <ul style="list-style-type: none"> • Total impact of TV broadcast (kgCO₂etv) • Breakdown of TV broadcast impact by digital third-party (kgCO₂etv) • Breakdown of impact by lifecycle phase (manufacturing and end of life of servers, networks and terminals, use of servers, networks, and terminals) of TV broadcast (kgCO₂etv) • TV broadcast impact per contact reached by the campaign (gCO₂etv/1000contacts) – <i>For TV, contacts are defined by the 4+ audience of the spot</i> • Impact of TV broadcast per actually viewed second (kgCO₂etv/second viewed) – <i>Indicator allowing a weighting by completion and visibility</i> <p>Findings:</p> <ul style="list-style-type: none"> • Impacts are approximately equally distributed across the different countries, but for very different audiences. • The choice of countries is a strong optimization lever. • It is considered to favor shorter formats in order to reduce direct impact
--------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

4 / Print advertising

Print advertising refers to printed advertisements in any type of printed press, identified in four families for paid press and two families for free press.

Paid press:

- Regional daily press
- National daily press
- Magazine
- Regional weekly press

Free press:

- Free information press
- Brand magazine

Advertisements in press also include digital versions, i.e., versions in PDF format or for e-readers (epub, etc.).

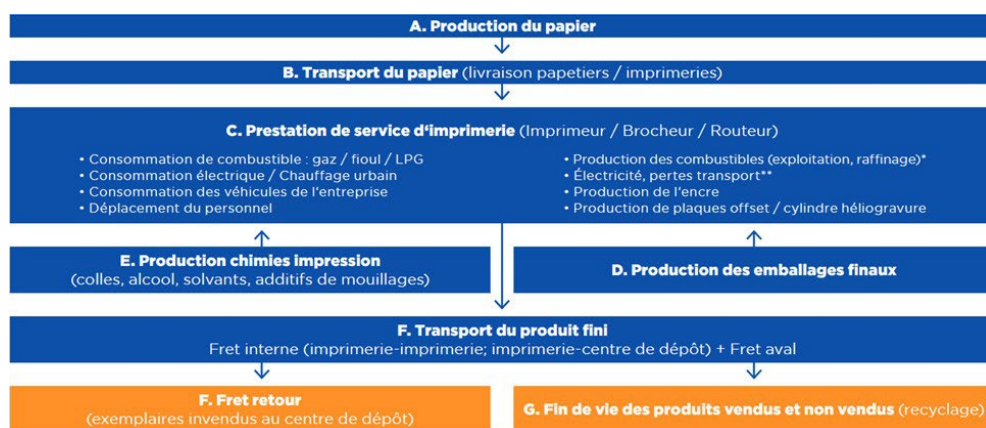
Insertion size varies from one advertisement to another.

Impacts to be measured in print press:

The 13 variables of the INTERGRAF framework must be taken into account in the carbon footprint of paper press. The SRP wished to integrate the end of life of sold or unsold products into these parameters.

The scope of impacts to be measured thus includes the following phases:

- Production (paper, inks, conditioning, etc.)
- Services of the printing company
- Transport
- End of life of products



((Table translation))

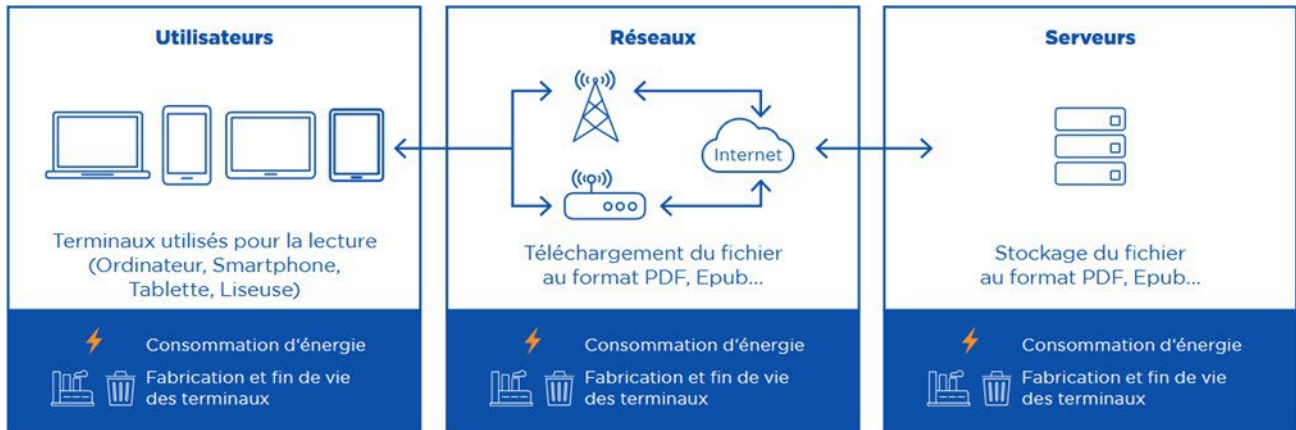
A. Paper production	
B. Paper transport (delivery from paper maker / printing company)	
C. Printing service (printing company / binder / router)	
<ul style="list-style-type: none"> . Consumption of fuels: gas / oil / LPG . Power consumption / urban heating . Consumption of company vehicles . Staff travel 	<ul style="list-style-type: none"> . Production of fuels (extraction and refining) . Electricity, transport losses . Ink production . Offset plate production / printing cylinder

<p>E. Printing chemistry production (glues, alcohols, solvents, dampening additives)</p>	<p>D. Final packaging production</p>
<p>F. Finished product transport Internal freight (printing company-printing company / printing company-storage center) + downstream freight</p>	
<p>G. Return freight (unsold copies returned to storage center)</p>	<p>H. End of life of sold and unsold products (recycling)</p>

Impacts to be measured in digital press:

The scope to be taken into account for measuring the impacts of digital press includes the whole service production chain: users, networks, and servers.

In each part, impacts are measured for the entire life cycle: upstream phase (material extraction, assembly, distribution), energy consumption and end of life.



((Image translation))

Users	Networks	Servers
Terminals used for reading (computer, smartphone, tablet, e-reader)	Downloading of file in PDF, Epub or another format	Storage of file in PDF, Epub or another format
Energy consumption Terminal manufacturing and end of life	Energy consumption Terminal manufacturing and end of life	Energy consumption Terminal manufacturing and end of life

Framework studied for this media:

SRP: framework for the calculation of the carbon footprint generated by press campaigns, V1 - September 2024



SRP framework was co-developed with [Eco Impact SEPM \(for magazine press\) V2 \(07/2022\)](#).



It is also based on: [INTERGRAF Recommendations on CO₂ emissions calculation in the printing industry V2.1 - 2021](#)

Characteristics of the framework:

- This framework was co-developed with CSR professionals of SRP advertising media in collaboration with the SEPM (Syndicat des Editeurs de Presse Magazine), the APIG (Alliance de la Presse d'Information Générale), and the ACPM, under the leadership of the SRP.
- The SRP carbon framework relies on the 13 variables of the European Intergraf

recommendations for the paper part, and on the SEPM framework for the magazine press. For its digital part, it uses the SRI / Alliance digitale framework.

- The framework includes a methodological guide explaining the scope of calculation, the models used to calculate the carbon footprint, practical application examples and a database offering average values for carbon footprint calculations. This database also includes average values of carbon impact per page and per type of press.
- It is available in open-source on the [SRP website](#) and designed in particular for advertising media, advertising agencies and any other player of the advertising market, which assess carbon footprints.

	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	<p>Brands, agencies, or other players wishing to develop their own multichannel tool will be able to use the SRP framework to unify their calculation practices in press.</p> <p>Thanks to this methodology, these players (from the industry or external) can create and check their calculator compliance.</p> <p>Regarding data, they will have the choice between:</p> <ul style="list-style-type: none"> • Using the averages per type of press that are available in the SRP database. • Using input data of media and the database supplied by the SRP to set default average values in the calculator. <p><i>Case a. involves using a gross carbon result, with no granularity, in its own calculator.</i></p> <p><i>Case b. requires some background work to collect data from media to be entered in the calculator.</i></p>		<p>Call upon media that have access to the SEPM tool (magazine press) or their own calculator, in line with the SRP.</p> <p><i>Option 3 remains the most precise and up-to-date option (media specific models are considered), but it requires a separate processing for each media – which is inefficient for advertisers.</i></p> <p><i>The brand will have to choose the media to be called upon, which account for the highest volume of prints / broadcasts / investments for the campaign.</i></p> <p><i>The advantage will be the possibility to have more granular and specific items.</i></p>
Emission or allocation factors to be used	The emission or allocation factors that must be used are listed in the database and implemented directly in the media tool.		

<p>Input data to be integrated</p>	<p>Campaign data: advertising format, number of pages, number of prints, number of digital versions, information regarding copies (press family, sizes) Publisher specific data: used papers (paper mill location, paper weight), printers/binders (conditioning, ink, energy, etc.), distance traveled</p>		
<p>Who does organize the input data collection?</p>	<p>Media concerned</p>	<p>Partner</p>	<p>Media concerned</p>
<p>Where are the main input data collected?</p>	<p>Data related to campaigns are very often available in campaign reports. Remaining data are available from the publisher.</p>		
<p>Output indicators to be monitored by the brand</p>	<p>Total impact of press campaign (kgCO₂eprint) Breakdown of impact by paper life cycle phases (paper production, transformation, printing and binding, transport, end of life) of print distribution (kgCO₂eprint) Breakdown of impact by digital life cycle phase (manufacturing, usage, end of life) of print distribution (kgCO₂eprint) Impact of print distribution per contact (audience) reached by the campaign (gCO₂eprint/1000contacts) – number of readings is integrated in the audience: <i>Thanks to this method, one gets the total number of press contacts.</i></p>		

APPLICATION EXAMPLE

Brand X conducts a multimedia advertising campaign entitled XX. It is rolled out for four months on different paper and digital media.

The advertisement is presented in a half-page format. The communication team wishes to calculate the carbon footprint of the press distribution of this campaign. Oneframe methodology thus advises using the ADMTV framework and the SRP database.

This framework provides data that are averaged by type of press and can be used without calling upon the media.

Moreover, a media agency called Y, which has been commissioned for this campaign, holds most of the information necessary for a proper calculation of the impacts. It will be able to calculate these using the SRP framework with its own data.

Practical application of the carbon footprint calculation for print distribution
Use of tools developed by each channel (option 3)

Input data to be integrated	<p>Since most of the input data (number of printed pages, paper weight, etc.) are integrated into the media and/or agency tools to which the brand refers, the only input data that have be collected are the CO₂e impact of paper and digital press distribution, sent directly by its interlocutor (possibly by type of press).</p>	<p>Value examples:</p> <ul style="list-style-type: none"> • Total CO₂e for paper press distribution over the period considered: 45 tCO₂e for one year • Total CO₂e for digital press distribution over the period considered: 30 tCO₂e for one year • Breakdown by country (print and impact) over the period considered 		
	<p>If the solicited player has not calculated the CO₂ impact of its distribution, average values by type of press are available in the SRP database. However, it will be necessary to collect input data such as number of pages, audience, type of press, etc.</p>		France (all media)	Belgium (all media)
		Prints (millions)	25.9	5.0
		Carbon impact (tCO ₂ e)	37.0	8.0
		Impact for 1000 prints (gCO ₂ e/1000 prints)	1,430	1,600
Emission or allocation factors to be used	<p>Modelings and allocations are implemented directly in the calculator of involved players. However, the brand must first confirm that calculations are carried out on a calculator complying with the SRP framework.</p>			
Who does organize the input data collection?	<p>The brand has appointed someone in charge of the data collection. This person collected data from the campaign manager in the agency. The agency collected information from media using its calculator, in line with the SRP methodology. If no information can be collected, the brand can use the average values per type of press that are available in the SRP framework.</p>			
Where are the main input data collected?	<p>Data, excluding carbon impact, are present in the default campaign reports, which are transmitted by the agency.</p> <p>The carbon impact calculation is sent directly to the brand by the requested media/agencies. If these carbon data are not available, the SRP database provides average data per type of press.</p>			

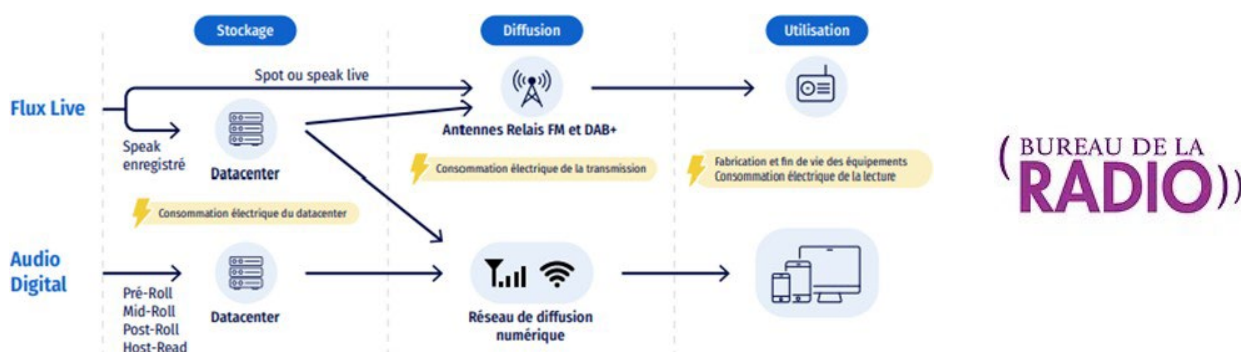
<p>Output indicators to be monitored and findings</p>	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> • Total impact of paper and digital press distribution (kgCO₂eprint) • If provided (ideal): Breakdown of impact by life cycle phase of the paper medium (paper production, transformation, printing and binding, transport, end of life) of print distribution (kgCO₂eprint) • If provided (ideal): Breakdown of impact per lifecycle phase of digital medium (manufacturing, use, end of life) of press distribution (kgCO₂eprint ext) • If provided (ideal): Impact of paper and digital press distribution per contact reached by the campaign (gCO₂eprint/1000contacts) – <p>Findings:</p> <p>Impacts are mainly proportional to the number of prints / distribution / investments.</p> <p>It is important to obtain more details about the optimization levers from the media: a priori, paper type and weight, management of unsold volumes, etc. For most media, this optimization task is accomplished in collaboration with press publishers.</p>
--------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

5/ Radio Advertising

Radio advertising refers to advertising broadcasted live on the radio media as well as its digital variants. Broadcasted content is audio content only with varying lengths.

Content is listened to via broadcast terminals (radio sets, smartphones, computers, etc.), partially stored on servers, and transmitted through broadcast networks (radio network – FM and DAB+, digital networks – fixed and mobile).

Impacts to be measured:



Framework studied for this media: [Bureau de la radio framework, V1 \(03/2023\)](#)

Characteristics of the framework:

- The radio advertising sector, including the nine national advertising media of France (Altice Média Ads and Connect, Lagardère Publicité News, M6 Publicité, NRJ Global, TF1 PUB, Kétil, Nova Régie, Radio France Publicité et Skyrock Public), has established a workforce coordinated by the Bureau de la Radio in order to define a footprint measurement (expressed in tCO2e) for the broadcasting of a radio and audio advertising service.
- This framework was co-developed in collaboration with players of the carbon footprint measurement (including the DK company and the Association Bilan Carbone), led by the Bureau de la Radio (BDR). It is based on the Bilan Carbone methodological standard and on the technical expertise of players in the sector, as well as on works carried out by the SRI & Alliance Digitale in their framework for 'digital'. The framework includes a guide that defines the scope of calculation as well as the models used to calculate the carbon footprint of a radio campaign and a database with average factors allowing an impact calculation based on input data.
- It is available [under this link](#), and accessible via the nine media.
- The framework is integrated in a tool used by all member media in France, developed by DK, allowing media to calculate the carbon impact of their campaigns.

Scope covered by the framework:

The scope takes into account:

- **The storage** of advertising creation in datacenters
- **The spot broadcasting** via FM and DAB+ relay antennas or a digital broadcasting network
- **The use** i.e. the audience listening to the advertising via radio or digital receiving terminals.

Framework data are updated on a regular basis. For example, it already integrates the scope of the SRI V2 framework for 'digital' (released in June 2023). To date, programmatic is integrated in the calculator, under the SRI V1 methodology. A study is underway to adjust the modeling for the radio media.

Data considered in the common calculator are listed below:

	Serveurs	Réseaux satellite	Réseaux web	Réseaux antennes relais FM	Terminaux Radio	Terminaux Autoradio	Terminaux numériques
Fabrication	À venir	Données indisponibles	Exclu	Données indisponibles	Inclus partiellement	Données indisponibles	Inclus
Utilisation	Inclus	Données indisponibles	Inclus	Inclus	Inclus	Données indisponibles	Inclus
Fin de vie	À venir	Données indisponibles	Exclu	Données indisponibles	Inclus partiellement	Données indisponibles	Inclus

	Servers	Satellite networks	Web networks	FM relay antenna networks	Radio terminals	Car radio terminals	Digital terminals
Manufacturing	Coming soon	Data not available	Excluded	Data not available	Partially included	Data not available	Included
Usage	Included	Data not available	Included	Included	Included	Data not available	Included
End of life	Coming soon	Data not available	Excluded	Data not available	Partially included	Data not available	Included

	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	<p>Since used databases are only partially available in open-source, brands, agencies, or other players wishing to develop their own multichannel tool will have to:</p> <p>a. Integrate results of the common tool developed by the BDR directly into the input data of their own calculator (paid access – DK platform license). Collection is possible via a dedicated API.</p> <p>b. Negotiate for an access to a part of data from average media owning the BDR. Some data, such as values of terminal, server and digital network impacts are available free of charge, which will allow to rebuild the calculation mechanics based on a freely accessible methodology (see above for the link to the BDR framework).</p> <p><i>Case a. involves using a gross carbon result, with no granularity. The data collection via an API could allow a more efficient automatic processing in the case of interconnected tools (to be implemented).</i></p> <p><i>Case b. requires some background work to rebuild used data, in order to make the calculator compatible with the framework.</i></p>		<p>Request to radio media accessing the common BDR tool (DK platform) or their own tool.</p> <p><i>Option 3 remains the most precise and up-to-date option (media specific models are considered), but it will require a separate processing for each media – which is inefficient for advertisers. The brand will be able to select some media accounting for the largest portion of broadcast volumes for the campaign. The advantage will be the possibility to have media channel-specific data with a higher granularity (e.g. average rate, etc.).</i></p>
Emission or allocation factors to be used	<p>In case a., factors and models are managed directly by the third-party tool (no access to the emission factors in the BDR database).</p> <p>In case b., factors and models have to be rebuilt with freely available data and BDR averages, for which access must be requested.</p>		<p>Factors and models are managed directly by the third-party tool (results of the common BDR tool; no access to emission factors in the BDR database).</p>
Input data to be integrated	<p>Per format of spot broadcasted during the campaign Allocation mode (over-the-counter or programmatic) Weight of the advertising content (KB) Total audience of the spot Advertising content length (in s.)</p> <p>Note: Country of broadcast is not requested. For the time being, the radio calculator has been developed for France. An adaptation is under development for other countries, but it requires confirming the breakdown of broadcast networks.</p>		
Who does organize the input data collection?	Brand	Partner	Media concerned

<p>Where are the main input data collected?</p>	<p>Request must be made to the BDR, the media or the DK partner if the advertiser or its partner wishes to integrate the tool results directly.</p>
<p>Output indicators to be monitored by the brand</p>	<ul style="list-style-type: none"> • Total impact of radio broadcasting (kgCO₂eradio) • Breakdown of impact by digital third-party (kgCO₂e) • Breakdown of impact by lifecycle phases (manufacturing and end of life of servers, networks and terminals, use of servers, networks, and terminals) of radio broadcast (kgCO₂eradio) • Radio broadcast impact per contact reached by the campaign (gCO₂eradio/1000contacts <ul style="list-style-type: none"> – For radio campaigns, contacts are defined by the 13+ audience of the spot. • Impact of radio broadcast per € spent on this broadcast (kgCO₂eradio/€) • Impact of radio broadcast per second of broadcast content (tCO₂eradio/s)

APPLICATION EXAMPLE

Brand X carries out a multimedia advertising campaign entitled XX. It has been broadcasted on different radios (NRJ, Sky Rock, Radio Nova, France Inter, etc.) for one year.

The advertisement length is 5 seconds (audio provided in the required format by radios). The communication team wishes to calculate the carbon footprint of the radio/audio broadcast of this campaign. The Oneframe methodology thus suggests to turn to the BDR framework. As it is not possible to have direct access to this framework, radio media will have to be requested. Moreover, since a media agency Y has been commissioned for this campaign, this agency holds most of the information defining this campaign: broadcast country, audience, broadcasting radio, etc.

Practical application of the carbon footprint calculation for radio broadcasting

Use of tools developed by each channel (option 3)

<p>Input data to be integrated</p>	<p>Since most of the input data (audience, broadcast duration, etc.) are integrated in the media and/or agency calculation tool to which the brand refers, the input data to be collected is only the CO₂e impact of radio broadcast. This information is sent directly by its interlocutor (the media concerned). If the assessed campaign is a multimedia campaign, the brand will consolidate this impact with the impacts of other media.</p> <p>To determine the follow-up indicators, the data below have to be collected from the media:</p> <ul style="list-style-type: none"> ● Impact measurement provided by the media, detailed by country, by digital third-party, by broadcasting mode ● Audience by country for the campaign (possibly by radio) ● CO₂e impact for 1000 contacts (possibly by radio)
<p>Emission or allocation factors to be used</p>	<p>Modeling and allocations are implemented directly in the indicated common calculator.</p>
<p>Who does organize the data collection?</p>	<p>The brand has appointed someone in charge of the data collection. This person must call upon media directly or through other agencies.</p> <p>Note: Although it is preferred by the BDR and its members, this option requires to send the request to the media concerned, or to use the API of a proprietary tool.</p>
<p>Where are the main input data collected?</p>	<p>Data are collected directly by the media, which transmit the carbon impact calculation directly to the brand through the potentially requested agencies. If tool can communicate directly (API), this is done automatically.</p>
<p>Output indicators to be monitored and findings.</p>	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> ● Total impact of radio broadcasting (kgCO₂e_{radio}) ● If provided (ideal): Distribution of the radio broadcasting impact per digital third-party (kgCO₂e_{radio}) ● If provided (ideal): Breakdown of impact by lifecycle phases (manufacturing and end of life of servers, networks and terminals, use of servers, networks, and terminals) of radio broadcasting (kgCO₂e_{radio}) ● If provided (ideal): Radio broadcast impact per contact reached by the campaign (gCO₂e_{radio}/1000contacts) – ● Impact of radio broadcast per € spent on this broadcast (kgCO₂e_{radio}/€) ● Impact of radio broadcast per second of broadcast content (tCO₂e_{radio}/s) <p>Findings:</p> <ul style="list-style-type: none"> ● There is a lack of data on radio broadcast specific networks and on radio terminals (car radios are excluded). ● However, it is possible to draw the first conclusions: To reduce the direct impact, it is considered to prefer shorter formats, and to target less impacting networks and terminals.

6/ Outdoor Advertising (OOH & DOOH)

Outdoor advertising refers to campaigns on billboards (out-of-home, OOH) or screens (digital-out-of-home, DOOH).

In outdoor advertising (OOH), contents are photos or images printed on tarpaulins or posters, that have different distribution modes (glued poster, dedicated street furniture, vehicles, etc.). The advertising content is printed on a medium (poster) that is then transported where it must be displayed, collected and, in most cases, recycled. This furniture, which is sometimes dedicated to advertising, has its own lifecycle (manufacturing, transport and installation, maintenance, end of life), and its operation may also need energy (light, rotation, etc.).

In digital outdoor advertising (DOOH), content can be videos or fixed images broadcasted on dedicated indoor and outdoor screens.

Impacts to be measured:

- OOH – Lifecycle of posters and of their distribution media
- DOOH – Lifecycle of advertising billboards



Framework studied for this media:

AdOOHc calculator, factors updated in June 2022

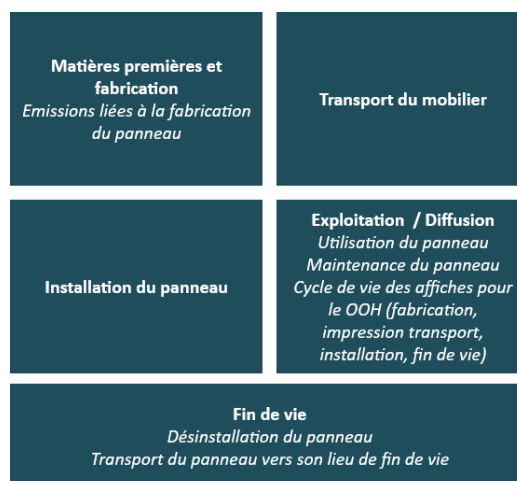
Characteristics of the framework:

- This framework was **co-developed** with the four main French players in outdoor advertising, supported by the Axionable firm and led by the **Union de la Publicité Extérieure (UPE)**. Emission factors and models integrated in the calculator have been created based on ACVs of the four main French players in outdoor advertising, in compliance with the ISO 14040 standard.
- The framework includes a methodological note detailing the scope considered, processed formats and methodological choices, as well as a calculator for measuring the GHG emissions of OOH and DOOH campaigns.
- The [calculator is available in open-source](#). It is **fed and updated on a regular basis**, according to the latest impact data of the portfolio of billboards and formats available to UPE members.

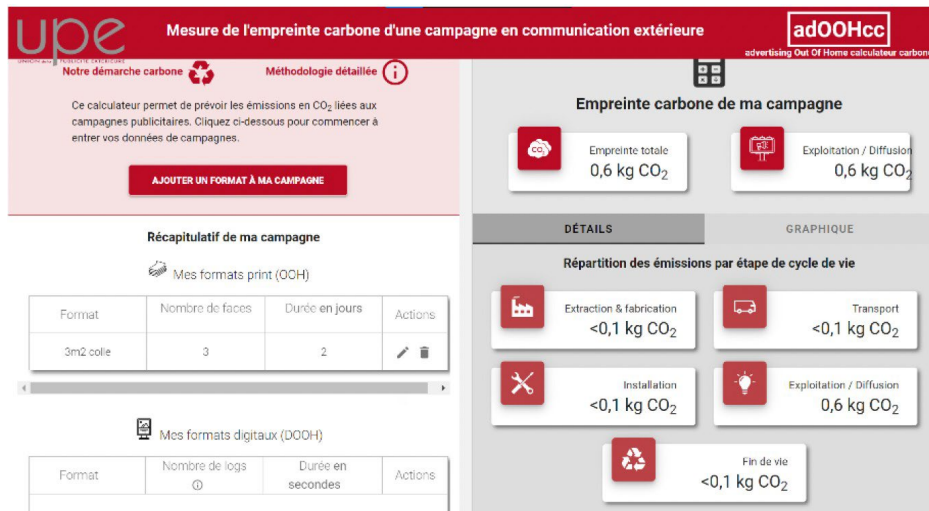
Scope covered by the framework:

- This framework covers 14 OOH advertising formats in different sizes: dedicated furniture with or without light, scrolling or not, glued, on a bus, on a fixed column, as well as two medium-sized digital formats (DOOH): indoor and outdoor.
- It takes into account the entire lifecycle of billboards (DOOH) and posters (OOH), from the extraction of raw materials to the end of life.

It does not take into account the creation of content displayed on billboards.



	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choosing the calculation tool	Ask the UPE for an access to the API of the adOOHcc tool. Develop the calculator in-house, based on the average factors from the models of the tool.	Partner tool (to be defined) (e.g. tool developed by the advertiser's agency), with compatibility of scope, modeling, input data to be validated (or which uses directly the dedicated API).	AdOOHcc (UPE's tool) can be used directly by the brand
Emission or allocation factors to be used	Average factors from UPE's adOOHcc tool	Partner tool factors and models (UPE compatibility to be validated)	Average factors from UPE's adOOHcc tool
Input data to be integrated	Display type: OOH or DOOH display OOH: Poster format, number of sides, campaign duration DOOH: Screen type (indoor or outdoor), number of logs (number of displays), spot length		
Who does organize the data collection?	Brand	Partner	Brand
Where are the main input data collected?	Main input data are present in campaign reports.		
Output indicators to be monitored by the brand	Total impact of outdoor broadcasting (kgCO₂ext) Breakdown of impact by lifecycle phases of billboards and posters (manufacturing, transport, installation, operation/distribution, end of life) for outdoor distribution (kgCO₂ext) Outdoor distribution impact per contact reached by the campaign. (gCO ₂ eOOH-DOOH/1000contacts) – for OOH and DOOH, contacts are estimated based on prints/logs. Impact of outdoor distribution per € spent on this distribution (kgCO₂ext/€) Outdoor distribution impact for the entire duration of the distribution (kgCO₂ext/s or days for DOOH or OOH)		



Screenshot from UPE's adOOHcc tool

APPLICATION EXAMPLE

Brand X carries out a multimedia advertising campaign entitled XX. A 12-month campaign is rolled-out in Belgium (DOOH).

The advertisement is displayed in a digital format (2 m²) – animated film of 10 seconds on 200 screens of approximately 100". The communication team wishes to calculate the

carbon footprint of the DOOH distribution of this campaign, and chooses to use UPE's calculator. The brand can access directly to this tool.

Moreover, the media agency Y, which has been commissioned for this campaign, holds most of the information necessary for a proper calculation of the impacts.

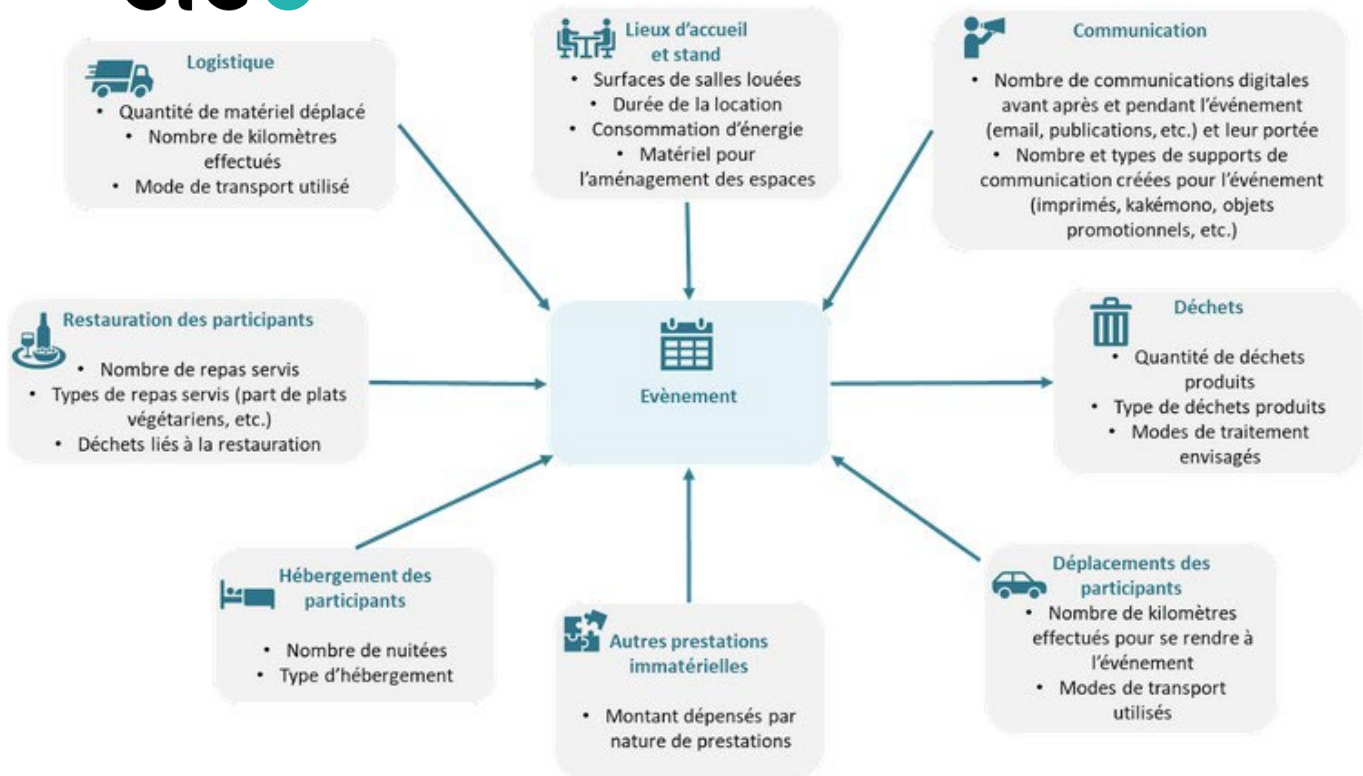
Practical application of the carbon footprint calculation for OOH & DOOH distribution

Use of tools developed by each channel (option 3)

<p>Input data to be integrated</p>	<p>Data requested by the UPE calculator</p> <ol style="list-style-type: none"> Format Type d'écran Nombre de logs ⓘ 0 Durée du spot en secondes 0 <p>ANNULER AJOUTER</p>	<p>Value examples:</p> <ul style="list-style-type: none"> • Display type: any weighted outdoor DOOH format • Number of logs: 400 000 logs over one year • Spot length: 10 s.
<p>Emission or allocation factors to be used</p>	<p>Models and allocations are implemented directly in the UPE calculator. However, the aggregated modeling on all formats brings just a little granularity in the analysis.</p>	

<p>Who does organize the input data collection?</p>	<p>The brand has appointed someone in charge of the data collection. This person collected the data from the campaign manager in the agency and entered them in the UPE calculator.</p>
<p>Where are the main input data collected?</p>	<p>The required data (logs, spot length) are found in the default campaign reports that are transmitted by the agency.</p>
<p>Output indicators to be monitored and findings.</p>	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> • Total impact of outdoor broadcasting (kgCO₂ext) • Breakdown of impact per lifecycle phases of billboards and posters (manufacturing, transport, installation, operation/distribution, end of life) of outdoor distribution (kgCO₂ext) • If provided (ideal): Impact of outdoor distribution per contact reached by the campaign (gCO₂eOOH-DOOH/1000contacts) – for OOH and DOOH, contacts are assessed based on number of prints/logs. • Impact of outdoor distribution for the entire distribution duration (kgCO₂eext/s or day for DOOH or OOH) • Impact of outdoor distribution per € spent on this distribution (kgCO₂eext/€) <p>Findings:</p> <ul style="list-style-type: none"> • Impacts are mainly proportional to the number of logs. It is important to obtain from the media more details about the optimization levers: a priori billboard type, spot length, etc.

7/ Trade Fairs, Events, and Roadshows



Framework studied for this media:

CLEO Carbone methodology (November 2023 version)



Characteristics of the framework

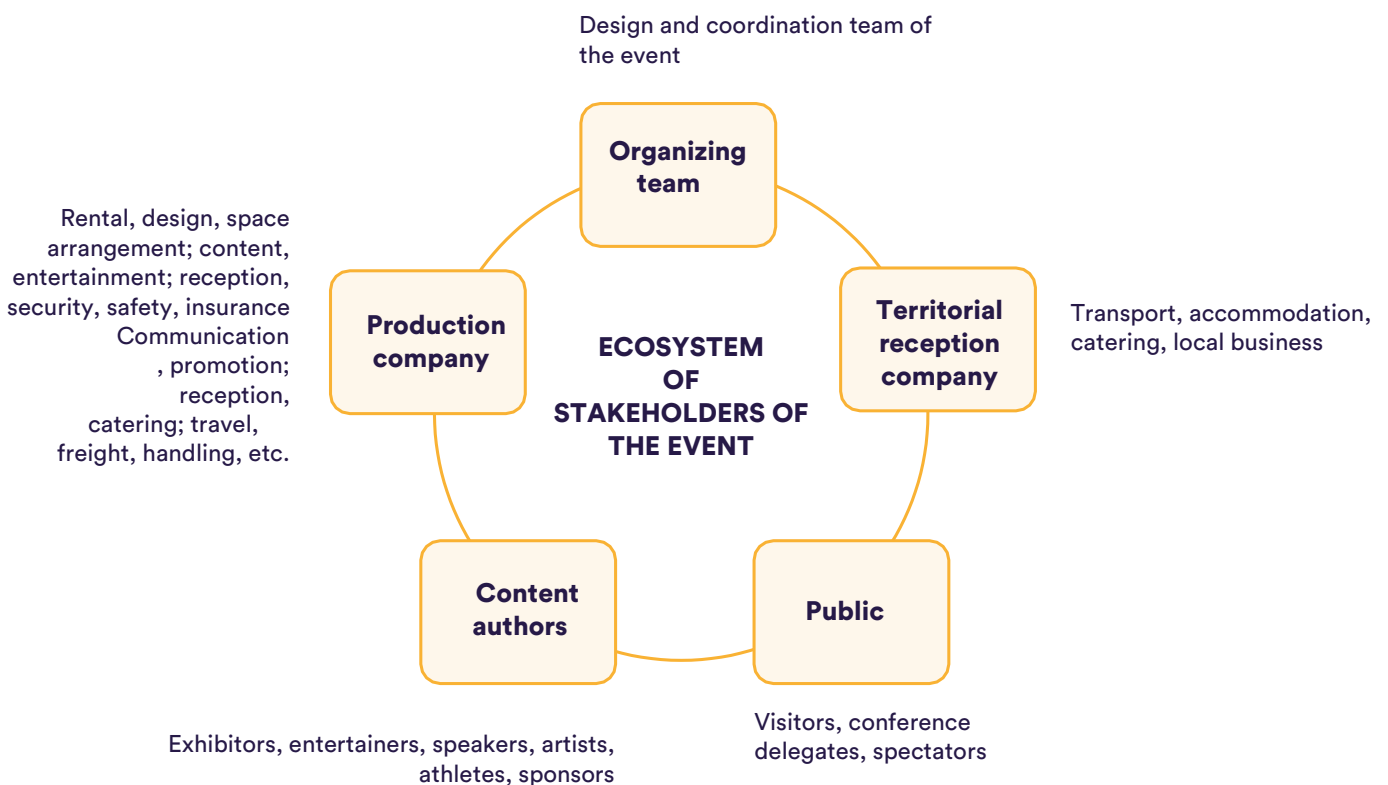
- This framework was co-developed with the involvement of a scientific committee comprising partners and institutional stakeholders, professionals in the event industry, and sectoral stakeholders as well as third-party developers who are experts in carbon calculation, led by the Union Française des Métiers de l'Évènement (UNIMEV) and the Comité Régional du Tourisme Paris Région. It offers templates for five typologies of event professions, as well as one template for corporate carbon balance. These templates define the main impacting items of the activity. They remain flexible, in order to ensure that the calculation is as close as possible to the real situation: for example, it is possible to add an impact that is not mentioned in the template, by selecting an emission factor in one of the numerous available certified databases.
- The framework relies on the Bilan Carbone and GHG Protocol methodologies as well as on the ISO 14061 standard and certified databases such as DEFRA, base ADEME, Agribalyse, Exiobase, etc.

Scope covered by the framework:

- Type of professions covered: event organizers, site managers, booth designers, caterers, multi-technical providers.
- Type of events covered: fairs and exhibitions, congresses, seminars, sporting events, artistic exhibitions and shows, conferences, forums, etc.

• **Scope covered:**

- Travel of participants
- Accommodation of participants
- Space arrangement
- Intangible services
- Water
- Other items
- Freight transport
- Catering for participants
- Communication
- Energy
- Waste



The Événement association currently develops an event framework that will be available in 2024 and integrated in the next version of the guide.

	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	<p>Since used databases are only partially available in open-source, brands, agencies, or other players wishing to develop their own multichannel tool will have to:</p> <p>a. Integrate results of the common tool developed by Cleo Carbone directly into the input data of their own calculator (paid access – Kabaun platform),</p> <p>b. Negotiate in order to check the compatibility of their modeling with the CLEO Carbon calculator. Some data, such as values of terminal, server and digital network impacts are available free of charge, which will allow to rebuild the calculation mechanics based on a freely accessible methodology (publication pending).</p> <p><i>Case a. involves using a gross carbon result, with no granularity, in its own calculator.</i></p> <p><i>Case b. requires some background work to rebuild used data, in order to make the calculator compatible with the framework.</i></p>		CLEO Carbone tool of the UNIMEV (paid access - Kabaun platform)
Emission or allocation factors to be used	Average factors and specific models for each event, from the UNIMEV's CLEO Carbone tool.	Factors and modeling of the partner tool	Factors and modeling of the CLEO Carbone tool
Input data to be integrated	<p>General information about the event: Dates, duration, country, number of participants, budget</p> <p>Travels: Number of visitors and staff, place of origin, mode of transport</p> <p>Locations: Energy consumptions, furniture and materials used for booths, waste production</p> <p>Logistics: Distance and quantities of transported material and consumables</p> <p>Catering: Meals served, and waste produced</p> <p>Accommodation: Number of nights accounted for</p> <p>Communication: Data related to digital, print, TV campaigns, etc. and dedicated to the event, production of goodies and consumables</p> <p>Other services: Amounts spent</p>		
Who does organize the data collection?	Advertiser	Partner	Media concerned

<p>Where are the main input data collected?</p>	<p>Physical information is available as direct monitoring during the event or from providers and suppliers (reception room, caterer, transport service provider, etc.). Information, in particular monetary one, is available in various quotes established for the event</p>
<p>Output indicators to be monitored by the brand</p>	<p>Total impact of the event (kgCO₂e/event) Breakdown of event impact by emission type (travels of visitors and staff, communication, furniture, energy, waste, catering, logistics, other services) (kgCO₂e/event) Event impact by contact reached (gCO₂e/event/1000contacts) – <i>In the framework, contacts are all visitors if the brand is the event organizer, or the portion of visitors met during the event if the brand is only a participant</i> Event impact by € spent (kgCO₂e/event/€) Event impact for its entire duration (kgCO₂e/event/days)</p>

APPLICATION EXAMPLE

Brand X organizes an event in France. This event takes place on site that is already set in the tool. Hundreds of visitors are expected.

The communication team wishes to calculate the carbon footprint of the brand participation to this event. The Oneframe methodology thus suggests using the CLEO Carbone calculator. Moreover, the media agency Y, which has been commissioned for this campaign, holds most of the information necessary for a proper calculation of the impacts. Since the calculator can be accessed on demand, the brand will have to ask for it to the UNIMEV (or ensure the agency already has access to it)

Practical application of the carbon footprint calculation for an event

Use of tools developed by each channel (option 3)

<p align="center">Input data to be integrated</p>	<p>Data to be collected are:</p> <p>Travels of employees and staff, and visitors to go to the event</p> <ul style="list-style-type: none"> • Number of employees going to the event • Number of meals served • Portion of vegetarian meals • Portion of used dishware <p>Logistics for the event</p> <ul style="list-style-type: none"> • Number of people in the staff • Amount spent on transport (logistics (entertainers) working on the event upstream and downstream) for the organization of the event • Number of visitors • Event reach (local, international) • Distance traveled by employees • Number of travels for national, the event (upstream and downstream) • Mode of transport • Distance traveled by the staff • Portion of visitors coming from the town of event • Portion of visitors coming from the country of event advertising, etc.) • Portion of visitors coming from the continent of • Portion of visitors coming from the rest of the world <p>Event place/booth</p> <ul style="list-style-type: none"> • Surfaces dedicated to the event • Event opening hours • Amounts spent on rented material/ bought/constructed for the event (furniture, machine, computing/technical equipment, etc.) • Portion of reused furniture and equipment after the event • Energy consumed for heating / kakemono, etc. products • Energy efficiency of the rented site <p>Catering</p> <ul style="list-style-type: none"> • Amount spent for cleaning, accommodation, caterer/food purchase <p>Communication</p> <ul style="list-style-type: none"> • Amount spent on communication on the digital media • Amount spent on communication on the physical media (goodies, POS • Number of prints for event campaigns display • Number of prints for worldwide video • Number of other digital communications (e.g. emails, etc.) • Number of visits on the Internet site and other digital media (e.g. app) products for the event • Number of promotional materials published papers • Number of typical promotional objects product goodies • Number of POS type temporary material/ products • Portion of reuse of these supports <p>Other services for the event</p> <ul style="list-style-type: none"> • Other amounts spent on services for the event (e.g. insurance, security, etc.)
<p>Emission or allocation factors to be used</p>	<p>Emission factors are implemented directly in the CLEO calculator. The impact of visitor travels is distributed proportionally to the brand participation</p>
<p>Who does organize the data collection?</p>	<p>The brand has appointed someone in charge of the data collection. This person collected the data from the event manager in the agency and entered them in the calculator.</p>
<p>Where are the main input data collected?</p>	<p>Data related to the booth and catering may be included in datasheets/quotes. Data related to travels of the staff and employees must be monitored.</p> <p>Data related to the fair (participation, etc.) may appear on the event website, in particular if an extra-financial balance is made, and they must be requested to the organization.</p> <p>Data related to communication appear on reports generated by the agency for the event.</p>

<p style="text-align: center;">Output indicators to be monitored and findings.</p>	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> • Total impact of the event (kgCO₂eevent) • Breakdown of event impact by emission type (travels of visitors and staff, communication, furniture, energy, waste, catering, logistics, other services) (kgCO₂eevent) • Event impact by contact reached (gCO₂eevent/1000contacts) – <i>In the framework, contacts are all visitors if the brand is the event organizer, or the portion of or the portion of visitors met during the event if the brand is only a participant.</i> • Event impact by € spent (kgCO₂eevent/€) • Event impact for its entire duration (kgCO₂eevent/days) <p>Findings:</p> <ul style="list-style-type: none"> • Travel of visitors is the major source of carbon impact. To reduce and manage this impact, local events as well as organizations facilitating the use of less-carbon-emitting modes (encouraging public transport services, measuring precisely the place of origin of visitors). • Other points to work on: encouraging vegetarian food, using second-hand material/equipment for booths, preferring carrier with a low-carbon policy, optimizing brand employee travels, etc.
-------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

8 / Emailing and Newsletter

Alliance Digitale and Union des marques have co-developed a common framework for calculation of environmental footprint of email campaigns to support the transition towards a more responsible email marketing.

Emailing refers to email campaigns on a leased base or CRM base as well as advertisements in newsletters. This includes the following formats:



E-MAILING COMMERCIAL
(sur base louée)



NEWSLETTER DE MARQUE
(sur base CRM)

Peut être un **email transactionnel** (ex : confirmation de commande, code de validation...) ou **marketing** (promotions, infos produits...)



Format publicitaire inséré dans une NEWSLETTER éditoriale

Prise en compte de l'**impact de l'ensemble de l'email**, à l'instar du Display où on attribue 100% de la durée de lecture sur le terminal au format publicitaire, même s'il ne représente qu'une partie de la page affichée.

<p>COMMERCIAL EMAILING (on a leased base)</p>	<p>BRAND NEWSLETTER (on a CRM base) Maybe a transaction email (ex.: order confirmation, validation code, etc.) or a marketing email (promotions, product info, etc.)</p>	<p>Advertisement inserted in an editorial NEWSLETTER Taking into account impact of the entire emailing, like in Display, where 100% of the reading time on a terminal is allocated to the advertising format, even if it represents only a part of the displayed page</p>
----------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Framework studied for this media:

Alliance Digitale x Union des marques 2026 methodology
[Framework can be downloaded here](#)

Characteristics of the framework:

This framework has been co-developed with members of Alliance Digitale specializing in email, brand members of Union des marques and experts in environmental impact.

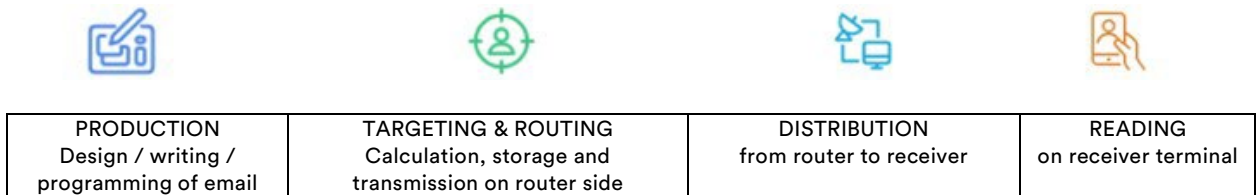
It also relies on works on the digital channel, as architectures are similar (servers, networks, terminals), while considering the specificities of emailing, such as routing.

The framework was developed with a critical review of modeling and data used by DK for the carbon assessment of email campaigns, in particular by comparing them with models developed by Numberly, Badsender (Sami), and Brevo (Aktio). Consistency with ADEME results and existing models has been checked.

Scope covered by the framework:

This framework considers all steps of an email campaign cycle, according to the digital channel methodology, for the entire life cycle of used equipment.

Note: Production of visuals specific to the email campaign can be subject to an additional assessment (see Section 1 / Content Creation). When existing visuals are used or when they are generated by the emailing platform, their use is included in this framework.



Assessment of carbon impact on the entire digital infrastructure that is used:			On the entire lifecycle of this infrastructure:		
Servers	Networks	Terminals	Production	Use	End of life
Power consumption of terminals, servers, and networks from ADEME source (NegaOctet 2.0 – footprint base) Carbon intensity of power, differentiated per country			Carbon emission factors from ADEME source (NegaOctet 2.0 – footprint base)		

	Option 1 Creation of an ad hoc tool by the brand	Option 2 Use of a partner tool	Option 3 Use of tools developed by each channel
Choice of the calculation tool	Calculator developed internally using the calculation mechanics and database of Alliance Digitale. Use of Alliance Digitale database, which provides models for the market and definable data with default averages. Media involved will have to be consulted to define how to get a more precise calculation.	Partner tool integrating the email channel, for which compatibility of scope, modeling, and input data has to be validated, ideally with an external audit of the tool.	Tools developed by the email media players, who can have their own tool – the brand will be able to select companies to be solicited that account for 80% of its print volumes for the campaign. One advantage is the use of more granular elements that are specific to the company configuration (ex.: location of routing servers, etc.).
Emission or allocation factors to be used	Average factors and models from the Alliance Digitale database for data in common with the market.	Partner tool factors and models (Alliance Digital compatibility to be validated)	Third party tool factors and models (Alliance Digital compatibility to be validated)
Input data to be integrated	<p>By format distributed during the campaign</p> <ul style="list-style-type: none"> • Number of emails sent • Target: B2B or B2C • Country where the campaign was designed • Country where routing servers are located • Country where the email is received • Weight of the HTML creation • Weight of creative assets (downloaded by the person opening the email) • Type of message: marketing or transactional • Bounce rate • Open rate • Reading time of email • If known, PUE of servers 		
Who is organizing the collection of input data?	Internal team of the brand	Partner	Media or agencies involved
Where is main input data collected?	Main data is present in the campaign reports. Possibility of dynamic collection for some elements, via analytic tools.		
Output indicators to be monitored by the brand	<p>Total impact of email distribution (kgCO₂eemailing)</p> <ul style="list-style-type: none"> • Breakdown of impact (kgCO₂eemailing) par digital third-party and cycle phase of the campaign (production, targeting & routing, distribution, reading) • Breakdown of impact (kgCO₂eemailing) by phase of distribution lifecycle (production and end of life, use) <p>Impact of digital distribution per contact reached by the campaign (kgCO₂eemail / 1000 contacts) – for emailing, contacts are defined by the number of emails that are opened</p> <p>Impact of digital distribution per sent email (kgCO₂eemailing / sent email)</p>		

Practical application of the carbon footprint calculation for email distribution

Use of a partner tool (option 2)

<p style="text-align: center;">Input data to be integrated</p>	<p>Main input data</p> <ul style="list-style-type: none"> • Number of emails sent • Target: B2B or B2C (affects in particular the distribution of terminals) • Type of message: marketing or transactional • Weight of the HTML creation • Weight of creative assets (downloaded by the person opening the email) • Bounce rate • Open rate • Reading time of email • Country where the campaign was designed • Country where routing servers are located • Country where the email is received • If known, PUE of servers 	<p>Examples of values</p> <ul style="list-style-type: none"> • 700 000 emails, with a B2C target and a marketing message, 80% in France and 20% in Spain • HTML creation: 100 KB • Creative assets: 100 KB • Bounce rate: 2% • Open rate: 50% • Reading time of email: 10s • The campaign is designed in France, targeting and routing is completed on servers located in Ireland (70%) and France (30%) • PUE is not known
<p style="text-align: center;">Emission or allocation factors to be used</p>	<p>Modeling and allocations are implemented directly in the partner tool, which has previously implemented emission factors and modeling according to the Alliance Digitale framework:</p> <ul style="list-style-type: none"> • Impact of targeting and routing is estimated according to the duration of use of targeting and routing servers • Impact of networks is estimated according to the consumed bandwidth (proportional to the weight of HTML, assets and number of emails sent and opened) • Impact of terminals is estimated according to the time of use of terminals (proportional to the reading time and the number of openings) 	

<p>Who is organizing the input data collection?</p>	<p>The brand has appointed someone in charge of the data collection. This person collected the data from the campaign manager in the agency and entered them into the partner tool.</p>
<p>Where is main input data collected?</p>	<p>Main data is present in campaign reporting: the agency has sent campaign reports per country, which include, among other things, email data (number of emails sent for each country, etc.). The weight of emails was measured directly on files sent by the creative agency. Missing data is assessed using the default parameters of the framework.</p>
<p>Output indicators to be monitored and findings</p>	<p>Indicators to be monitored:</p> <ul style="list-style-type: none"> • Total impact of email distribution (kgCO₂eemailing) • Breakdown of impact (kgCO₂eemailing) by digital third-party and phase of email campaign (production, targeting & routing, distribution, reading) • Breakdown of impact (kgCO₂eemailing) by phase of lifecycle (production and end of life, use) • Impact of email distribution per contact reached by the campaign (kgCO₂eemailing/1000contacts) – prints for email: contacts are defined by the number of opened emails • Impact of email distribution per sent email (kgCO₂eemailing/email sent) <p>Findings:</p> <ul style="list-style-type: none"> • In this campaign, the major source of carbon impact is the manufacturing of terminals. To reduce the weight of the campaign, measurement of the reading time must be more precise, and unnecessary email transmissions have to be reduced. • The impact of networks is significant too. Optimization is possible in quality of creative assets. • Lastly, preferring geographies with a more decarbonated electric mix for the targeting and routing phase can reduce emissions.

3 Usage case

dentsu

Comparative analysis of the weight of carbon of a communication campaign using the calculator developed by dentsu and Oneframe recommendations.

Adhering to this approach for transparency and harmonization of methods, the dentsu agency wished to compare the carbon balance results of its calculator (developed with Axionable) with the Oneframe methodology. To this end, an advertiser of the agency conducted a comparative analysis of the carbon balance from a real communication campaign rolled out in 2023.

Analysis scope

- Campaign studied covers the following:

Media	Volume of "contact"
TV	476 M
Radio	424 M
Digital	7 M

Collected elements were analyzed and assessed by BL Evolution.
Modeling was controlled for the following media: TV, Digital, Radio.

- Note:
 - The studied campaign covers volumes varying from one media to another: television and radio reach 60 to 70 times more contacts than digital methods.
 - The weight of TV content is higher than the weight of digital content.

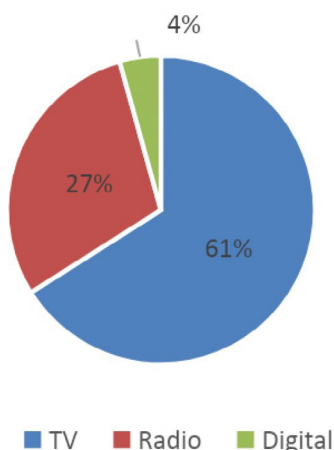
The type of used data also varies from one media to another:

- Digital impact is assessed based on open-source averages from the SRI V2.1 standard combined with default assumptions, such as Internet search time equivalent to a display print (3s). The advertising space allocation is included in the calculation, as well as manufacturing and end of life of servers and networks.
- For TV, calculation results are obtained from the tool of the inter-professional organization ADMTV (DK platform), which is based on average data of TV media.
- For radio, the process is roughly the same: Calculation results are obtained from the tool of the inter-professional organization Bureau de la Radio (DK platform), which is based on average data of radio media.

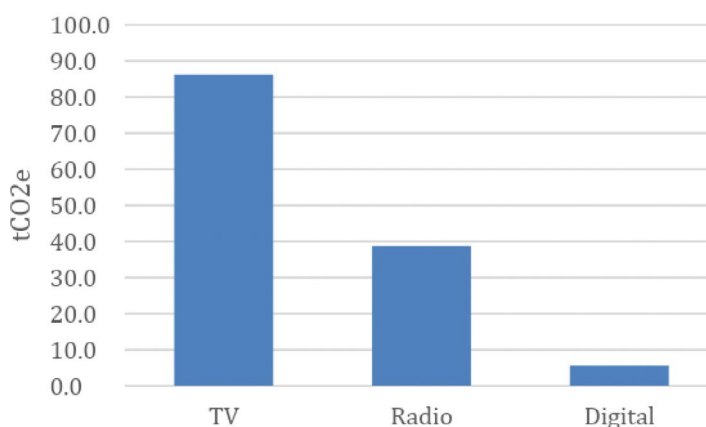
The assessed global footprint of the campaign calculated using the framework is 130 tCO₂e. This carbon weight comes mainly from emissions associated with the TV and radio spots.*

Results of comparative study

Breakdown of emissions per broadcasting mode



Absolute impact per media



Comparison of specificities of digital and TV impacts:

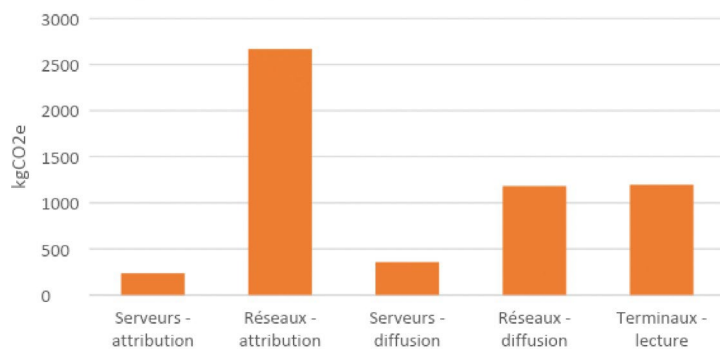
Due to the use of a broadcasting network (DTTV, satellite) for TV, server and network impacts are proportional to the number of broadcasts, which means independent from the audience. Therefore, the network share in the total TV impact is relatively low when compared to the terminal share, because the number of broadcasts is low when compared with reached audience.

In the case of digital and OTT, each viewing (unicast) induces one server call and one network transfer per connected terminal, which creates a correlation between the number of reached contacts and the generated carbon footprint.

Finally, there is an advertisement space allocation modeling only for digital methods, and its impact is mostly due to network solicitations. In the case of programmatic, this step can largely influence the balance, and it depends directly on the number of active paths implemented on sites (here, the default SRI value is used). There is no modeling for segmented TV impact.

* Results of this campaign are specific to its breakdown, and they must not be used for generalization of other campaigns with different characteristics.

TV – analysis of contributions by third party
 Digital – analysis of contributions by third party



((Image translations))

Servers	Networks	Terminals	Servers – allocation	Networks – allocation	Servers – distribution	Networks - distribution	Terminals - reading
---------	----------	-----------	----------------------	-----------------------	------------------------	-------------------------	---------------------

Regarding servers, the scope of frameworks goes beyond the sole storage function and uses a modeling created through the server solicitations (content transmission) for the allocation and broadcasting steps.

For terminals, life cycle is fully taken into account for the three media. The result depends directly on the strong assumptions used to define the emission factors, such as daily use or lifetime of each terminal.

Findings from the carbon balance comparison

- Results demonstrate the consistency of calculation modes. Therefore, the tool used to measure carbon impact of dentsu’s media campaign is in line with the Oneframe approach of Union des marques.

Both entities discussed in particular the weight allocated to terminals. Indeed, there was a focus on impact values of terminals, where harmonization represents a key challenge to collectively advance the market.

A discrepancy has been identified and explained for radio, the scope of which is different. The difference is mainly linked to the inclusion of carbon impact of content broadcasting on car radio by dentsu (estimated at one third of the sector by Médiamétrie). For the time being, it is not included in the Bureau de la Radio’s framework. It is thus relevant to model it if there is no data available in the framework, as is currently the case.

As with any carbon footprint calculation, an uncertainty coefficient remains in the results. In fact, used data are called “level 1 data”, meaning that a high number of assumptions have to be made for carbon footprint calculation. But this does not alter the value of findings mentioned above.

Carbon footprint of multimedia campaigns for Oasis and Schweppes.

Suntory, a member company of Union des marques participating in the Faire program, chose to calculate the 2021 and 2022 campaigns carbon footprint of its Oasis and Schweppes brands using Oneframe methodology. Suntory intended to create, based on this reference year, a strong, reliable, and transparent basis for its multimedia campaigns in order to then define a reduction trajectory over time.

Calculation was carried out by BL Evolution team during the last quarter of 2023. It confirms the relevance of approaches shared in Oneframe for the carbon footprint calculation of advertisers' communication campaigns.

Analysis scope

The carbon footprint calculation includes different types of content used for the campaigns:

- Media broadcasting channels: digital, TV, OOH/DOOH, print, cinema
- Brand content: content developed for broadcasting on the brand assets
- Production of advertising content: content produced for broadcasting on the media
- Influence: mainly digital
- Brand physical events
- Results do not include goodies, as these represent a very marginal portion and the obtained data granularity remains hardly usable.

The entire life cycle of campaigns has been taken into account, from content production to broadcasting to end of life of broadcasting devices. In particular:

- For a digital campaign, the life cycle includes the phases of advertising space allocation, storage, broadcasting, and use of the advertising spot. Here, we find the three “digital thirds”: servers, networks, and terminals.
- For a print campaign, global impact of the media life cycle is used.
- For events or production, travels and expenses are included in the carbon footprint calculation.

In this study, the following calculation frameworks are used according to Oneframe recommendations:

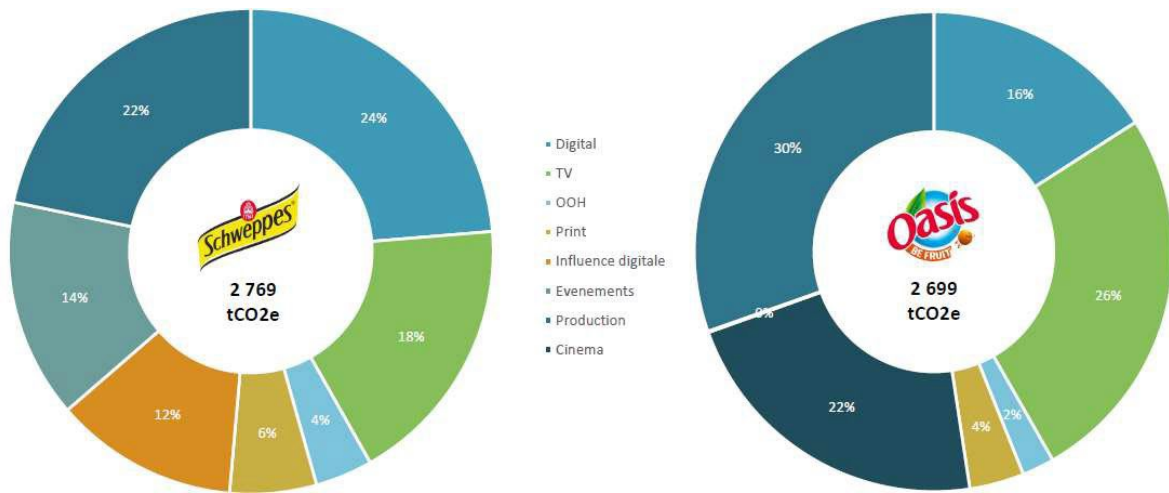
- SRI/Alliance Digital framework for Digital and Influence activations
- ADMTV framework for the TV media part
- SEPM framework for the Print part
- UPE framework for the OOH/DOOH part

Studied campaigns are defined according to the following scope:

Media	Schweppes - Volume of "contacts" 2022	Oasis - Volume of "contacts" 2022
Digital	194 M	536 M
TV	1,753 M	2,619 M
Magazine	26 M	18 M
OOH/DOOH	512 M	59 M

Results

Carbon footprint of Schweppes and Oasis campaigns is respectively 2,769 tCO₂e and 2,699 tCO₂e for 2021 and 2022 (aggregated).



For both brands, main sources of emissions are Digital, TV and advertising production. For Oasis, cinema also accounts for a significant portion of the carbon footprint, whereas events are the fourth source of impact for Schweppes.

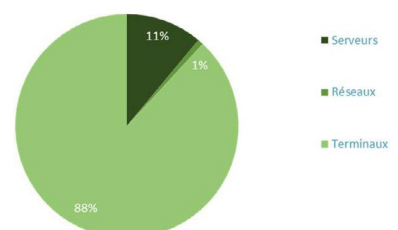
Given the lack of input data, the impact of production has been estimated and most of it comes from services. These have been assessed using a monetary ratio, which partly overestimates the results.

Close-up on Schweppes footprint: TV, Digital and Influence

Focus on TV media

88% of the "TV broadcast" impact is due to viewing of the campaign on television. The particularly low impact of networks is due to the broadcasting mode (satellite, DTTV, etc.). In fact, with this mode, the audience volume has no influence on the impact.

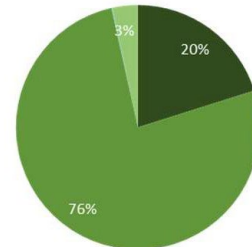
Détail de l'impact des campagnes TV Schweppes



Focus on Digital media

As opposed to what was observed in TV media, here, networks account for the majority of impact of this item. The cause is the significant weight of the broadcasted content (video of 132 Mb/spot in average, with some long spots) and the allocation mode of advertising space requiring a lot of resources, calling upon many third parties and additional servers and networks (programmatic allocation mode). The extremely low impact of the terminal part is due to a low completion rate.

Détail de l'impact des campagnes digitales Schweppes

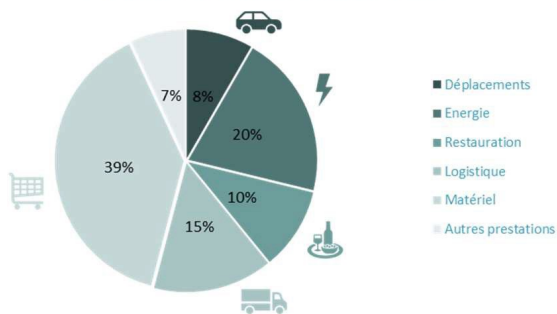


Focus on events and influence

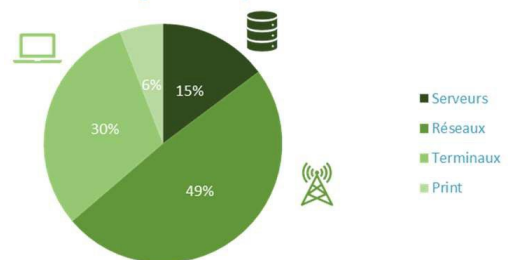
Two different frameworks have been used in Oneframe:

- UNIMEV framework for the event part
- SRI/Alliance Digitale framework for the digital Influence part

Répartition de l'impact des événements



Répartition de l'impact Influence digitale et presse



BL Evolution has worked on the following basis:

- Assumptions on the travel mode and number of kilometers traveled are based on the AACC (Association des Agences-Conseils en Communication) calculator, which offers a modeling. Total impact of visitor travels attributed to the campaign is proportional to the total length of the last film show.
- Remaining impact of cinema is mostly due to the energy consumption of the theater during broadcasting of the spot.

Lessons learned and recommendations

Carbon footprint calculations made it possible to identify several reduction levers for this footprint. Areas for improvement have also been identified, to allow a more accurate measurement of the footprint, and to monitor implemented actions.

Given the nature of their activities, production and events combine identical courses of actions. It is possible to act on purchases by encouraging rentals, extending the equipment lifetime, reusing, or calling upon more responsible providers. The question of needs also has to be addressed, for more sobriety. Some levers have been identified in the area of travel: reducing the number of people traveling, reducing the distance covered, or limiting carbonated modes of transport such as planes or combustion vehicles. For events, it is important to give some thought to the number of targeted people and the chosen location, which must be accessible with soft means of transport (train, carpool, etc.).

For media (TV, digital, or press campaigns), carbon footprint is directly related to the audience. Thus, levers for sobriety, optimization and targeting of the number of reached contacts need to be identified. Furthermore, one of the levers is to work on the format size. For digital and influence campaigns, special attention should be paid to the weight and length of videos. On press media, impacts are proportional to the size of inserts as well as to the type of paper and printing, despite greatly varying results and incomplete transparency on this media. Lastly, another identified lever is challenging the broadcaster.