

# Fenavian/BReMa Sectoral Sustainability Guide





# FENAVIAN/BREMA SUSTAINABILITY REPORTING TOOL FOR SMES

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## ABOUT THIS TOOL

### 1.1 GOAL: LEARNING TO REPORT

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This tool was developed by the sector federations - Fenavian and Brema - in response to the needs of our members. We want to **guide** our members in sustainability reporting, to lower **the thresholds**. On the other hand, this handy tool can immediately **be** used as a standard to draft a professional sustainability report.

Sustainability reporting is becoming a **licence to operate**: without a sustainability report, doing business will be nearly impossible. With this initiative, we want to help members learn how to report: on the one hand, by educating them on the subject, and on the other hand, by guiding them step by step in drafting a sustainability report. We also want to ensure that members **see the bigger picture** and not merely perceive it as another obligation or administrative burden, but as an opportunity to elevate their business to the next level. Sustainability is inescapable, so how can we **integrate this into our company policies** and **reap the** benefits?

The sustainability report offers our members the opportunity to make their company more sustainable. In the long term, this means not only operating in a more environmentally and socially responsible manner, but also becoming **more cost-efficient**. You can use your sustainability policy to attract the necessary financial support, strengthen your business and gain clients' trust. It also allows you to map out which future investments are useful and helps differentiate your company from competitors at home and abroad.

### 1.2 DEVELOPMENT

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Europe introduced sustainability reporting requirements for large companies with good intentions. However, this inadvertently affected all companies, including SMEs, despite the exemption from the European obligation. Our members faced an overwhelming number of unreadable, confusing and extremely complex questionnaires from retailers and other clients. Each client had its own questionnaire, expectations, structure and questions. Members willing to fill them in would have spent tens of thousands of euros on expensive consultants, protocols, data collection, software licenses, audits, ... With the current labour shortage, companies lack the personnel to familiarize themselves with this complex subject. Moreover, profit margins have been under such pressure in recent years that there is simply no financial room for these additional investments.

These varied questionnaires do not enhance sustainability (while this should be the goal), but instead create financial burdens, administrative overload, and most importantly negatively impacted the morale of the companies. Alongside all the existing obligations, investments and the proliferation of new regulations, this was an additional insurmountable challenge.

Members turned to us, their federation, for help. Instead of each company spending countless hours to navigate the jungle of sustainability terminology and requirements individually, and matter, we took this on.

In creating this tool, we consulted various sources in addition to all these existing questionnaires and legislation, including the Greenhouse Gas Protocol (GHG), the Sustainability Accounting Standards Board (SASB) standards for the food sector, and the Voluntary reporting standard for SME (VSME).

From this multitude of information and standards, we developed an approach and questions relevant to SMEs involved in the processing of meat, other proteins and ready meals.

## 1.3 STRUCTURE


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This tool consists of four modules:

1. **The Basics of Sustainability Reporting:** This first module introduces key concepts and objectives of CSRD sustainability reporting. Important terms are highlighted in red boxes.
2. **Getting Started:** This module begins the actual work, including determining the double materiality, mapping the value chain and defining strategy. Concrete examples are provided.
3. **ESG Reporting Template:** This module contains the actual ESG questions.
4. **Background Information:** This module offers more detailed theoretical background information.

We do not expect our members to produce detailed reports immediately. We provide a tiered system with three knowledge levels: basic reporting (level 1); intermediate reporting (level 2) and an advanced reporting (level 3). Throughout the tool, they are indicated with the following colour code:

Level 1: Basic reporting
Level 2: Intermediate reporting
Level 3: Advanced reporting

Questions from the Voluntary reporting standard for SME (VSME) are marked with a  the corresponding number of the VSME can be found in the footer.

We have tried to illustrate each question with concrete examples from the sector, to give you an idea of what your answers could be. However, these examples are neither binding nor exhaustive and you are of course free to adapt them to your own situation.

We consider scope 1 and 2 as basic reporting, while scope 3 is not included (more information about scopes, see Section 2.2 [Scope 1, 2 and 3](#)). After all, no agreements on scope 3 currently exist and there is still a lot of confusion. In addition, it is too complex and costly for our companies to calculate these aspects. Scope 3 is therefore only included in our advanced reporting.

# MODULE 1:

## 1. THE BASICS OF SUSTAINABILITY REPORTING

### 1.1 BACKGROUND

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To achieve climate neutrality and drastically reduce greenhouse gas emissions, the EU introduced the CSRD Directive ([EU 2022/2464 - Corporate Sustainability Reporting Directive](#)). The most visible objective is "fit for 55": to reduce CO<sub>2</sub> emissions by 55% by 2030. Climate neutrality is envisaged by 2050.

Since the introduction of **CSRD**, you will increasingly be asked to report on **the sustainability of your company and products**.

The CSRD is mandatory for large companies and listed SMEs, but **it is not obligatory** for (non-listed) SMEs. However, since many of your clients do have to comply with sustainability reporting, they will in turn ask you to provide sustainability information (the so-called **trickle-down effect**).

For more background information, see [Module 4:Background](#).

### 1.2 SUSTAINABILITY - DEFINITION

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Sustainability is divided into three so-called **ESG themes**:

- **Environment**, i.e. energy use, emissions, waste management, ...
- **Social**, i.e. working conditions, human rights, ...
- **Governance**, i.e. corporate ethics, business conduct, ...

### 1.3 PURPOSE OF THE SUSTAINABILITY REPORT

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The sustainability report shows **the current state of affairs and vision of your company** and elaborates on your future action plans in terms of sustainability.

Your first sustainability report serves as your **baseline measurement**, the foundation for tracking your progress in achieving your sustainability goals in subsequent years. This first year is the reference year (YR). of the key focus is improvement. The goal is not to present a top report today, but to enhance your sustainability efforts each year.

For example, you could perform your baseline measurement today on the year 2022 and base your data model on it. Then, you could make a report on 2024, using the same data model. The initial setup will be the most challenging and time-consuming, but once the data model is in place, future sustainability reporting will be significantly easier.

This "obligation" also presents **an opportunity** to integrate sustainability throughout your business operations.

# MODULE 2: GETTING STARTED

## 2.1 MAPPING THE VALUE CHAIN

As a basis for your sustainability reporting, you first map **out your entire value chain**, both your supply chain as other stakeholders. You can take that literally.

### VALUE CHAIN – What is this?

The **value chain** consists of **all processes and actors** necessary to get a product **from product development to the client**, including development, design, raw materials, production, sales and distribution.

*See **Fout!** Verwijzingsbron niet gevonden. for examples of processes.*



### What does my value chain look like - who are my stakeholders?

#### Internal

- Staff
- Temps
- Board members
- Shareholders

#### External

- Suppliers (services/goods)
- Clients (Buyers)
- Auditors
- FASFC
- Social secretariat
- Trade unions
- Banks/other financial experts
- Residents
- Governments, local/regional/federal
- Knowledge institutions
- Sector federation
- Other

## 2.2 SCOPE 1, 2 AND 3

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With **Scope 1, 2 and 3**, you can organise your company's emissions into different categories. These originate from the **Greenhouse Gas Protocol (GHG)**, a protocol (a language/measuring method) that provides guidelines for companies to measure and report their greenhouse gas emissions.

**Scope 1: direct emissions** from the reporting company, for example:

- Related to production activities: greenhouse gas emissions resulting from burning fossil fuels in boilers or furnaces by the company.
- Emissions from vehicles in the company fleet (e.g. cars, vans, trucks).
- Process emissions released during industrial processes and on-site production (e.g., factory smoke, chemicals).

**Scope 2: indirect emissions from purchased energy:**

- Greenhouse gas emissions resulting from the generation of electricity, heat, steam or cooling that an organization purchases and consumes.

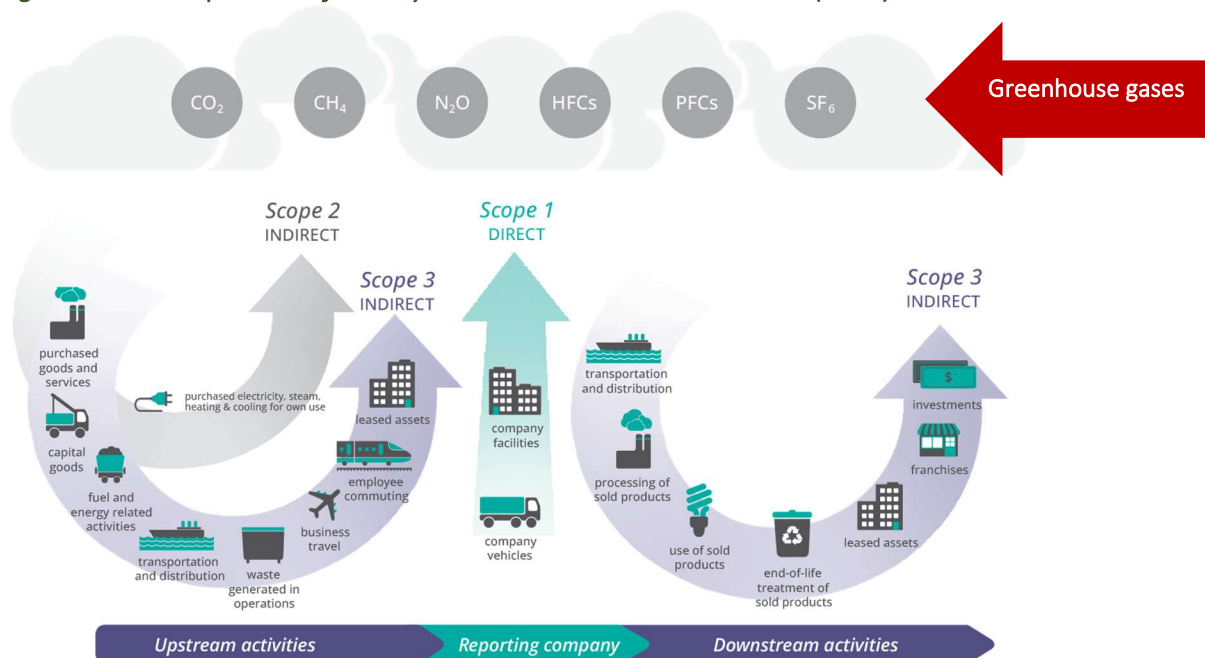
**Scope 3: Indirect emissions in the value chain/entire life cycle:**

- Scope 3 emissions are indirect emissions that occur in an organization's value chain but are not directly under its control. They originate from activities such as the production of purchased goods and services, transportation, product use, and waste disposal. In short: these emissions come from suppliers, clients, and other external processes linked to an organization.
- Scope 3 emissions are classified into **upstream** and **downstream** emissions:
- **Upstream:** Indirect greenhouse gas emissions within the reporting company's value chain, related to purchased goods and services and generated from cradle-to-gate.
  - o For example:
    - Transportation of animals or meat products between suppliers, slaughterhouses, and production facilities
    - Emissions from feed production, packaging manufacturing
    - Energy consumption on farms
    - Business travel and employee commuting using third-party transportation
    - ...

- **Downstream:** greenhouse gas emissions within the reporting company's value chain, related to sold goods and services, which are emitted after they leave the company.
  - o For example:
    - Energy consumption by retailers when storing, cooling and displaying the meat and protein products or ready meals
    - Waste disposal of packaging materials by consumers or retailers
    - Household energy consumption in storing, preparing and cooling the products

**Scope 3** is the least obvious to calculate. The data required for this calculation is often unavailable. Therefore, we have excluded scope 3 from the basic reporting level and included it only in the advanced level.

Figure 1: the scopes as defined by the Greenhouse Gas Protocol (GHG)



## 2.3 CONDUCTING A DOUBLE MATERIALITY ANALYSIS

After mapping your value chain and your scopes 1 and 2 (3), you can start a **double materiality analysis**. This process involves analysing:

1. **How the organization impacts the world**
  - o its positive and negative impact on a number of ESG aspects: environmental, social and governance
  - o inside-out perspective
  - o also known as "impact materiality"

## 2. How the world affects the organization

- financial risks due to, for example, climate change or changing regulations
- outside-in perspective
- also known as "financial materiality"

This analysis gives you an insight into your company's positioning and the key themes relevant to your company, including:

- How is my company perceived – positively or negatively? Where do we stand in the world?
- Animal welfare/antibiotics/use of soy/palm oil/...
- Child labour?

### 2.3.1 How to conduct this analysis?

You can create up a list of potentially **material topics** and their associated **impact, risks and opportunities (IRO)**. For example, select a top 3 and assign them a score.

Examples: food safety, waste reduction, more sustainable packaging, local sourcing, ethical business conduct, anti-deforestation policy, alternative protein sources, animal welfare, (partial) electrification of the company fleet, CA (Carbon Accounting) calculations for activities and products.

Next, in collaboration with your respective stakeholders, you can assess the importance/materiality of these topics using objective criteria (scale, scope, remediability, probability).

## DOUBLE MATERIALITY ANALYSIS - What is this?

**Double materiality** is the assessment of how sustainability issues affect your company financially (financial materiality) and how business impacts society and the environment (impact materiality):

**Inside-out:** what positive or negative impact do your company's activities have on the outside world in terms of environmental, social and governance aspects (**impact materiality**)?

For example: the impact of your company's greenhouse gas emissions on the environment

**Outside-in:** assessing how environmental, social and governance (ESG) factors affect your company's financial performance - i.e. the external influence on your company's internal (financial) operations (**financial materiality**)

For example: the impact of climate change on rising raw material prices

**Table 1: Example of inside-out / (impact) materiality assessment**

(material) Topic	Impact on the environment (inside-out)	(impact) materiality <i>How substantial is my impact on my environment?</i>
CO <sub>2</sub> emissions	Contribution to climate change	Medium
Water consumption	Depletion of local water sources	High
...		Very low/low/medium/high/very high

**Table 2: Example of outside-in / (financial) materiality assessment**

<b>(material) Topic</b>	<b>Impact on the company (outside-in)</b>	<b>(financial) materiality</b> <i>How substantial is the impact on my business?</i>
Climate change	Poor harvests – increase in raw material prices	Very high
Greenhouse gas emissions	Further regulation can increase costs	High
Biodiversity	Expansion opportunities are limited due to the proximity of a protected nature reserve.	Very high
Transport	Increased traffic congestion– delivery delays– higher costs	Very high
...		Very low/low/medium/high/very high

This analysis aims to identify **your risks and opportunities** related to environmental, social and governance (ESG) issues.

In addition, it provides insight into the importance of specific ESG issues for both your internal and external stakeholders.

To map out double materiality, it is crucial **to involve as many stakeholders as possible** and thoroughly define your **value chain**, i.e.: who comes before you (**upstream**) and who follows after you in the chain (**downstream**).

Once you have analysed which topics are important for your company, i.e. the (material) topics with significant impact (see Table 1 and



Table 2), you can elaborate on these topics in your sustainability report. This involves measuring them, reporting on them and setting specific goals. You can decide which topics to focus on. This will become clearer once you go through the questionnaire.

## 2.4 COLLECTING DATA

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It is essential **to collect** all available **data** you have in order to be able to do **a baseline measurement**. The baseline measurement represents your **reference year/baseline year**, your starting point.

Our questionnaire will clarify which data is required.

In the future reports, you will be able to demonstrate progress relative to this **baseline year** (YR). The following reports will specify the **reporting year**.

Make sure to document the **calculation methods and any calculation tools** used for processing data in the sustainability report. You must clearly outline how you arrived at a particular result.

## 2.5 DEVELOPING AN ESG STRATEGY

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Using the results of your double materiality analysis and the collected data, you can **set goals** for the ESG issues that matter most to your stakeholders.

Ensure that ESG goals are not only **achievable** but also **measurable** - this will facilitate reporting on your progress.

How to determine these objectives will become clearer as you complete the questionnaire.

# MODULE 3: ESG REPORTING TEMPLATE = ONLINE TOOL

# MODULE 4: BACKGROUND INFORMATION

## 4.1 WHAT IS...

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### 4.1.1 The Green Deal

- Who? EU
- When? 7/7/2021
- What?
  - **Ambitious policy framework (non-exhaustive list):**
    - 55% less greenhouse gases in 2030 compared to 1990
    - 3 billion additional trees planted by 2030
    - Europe first **climate-neutral continent by 2050**
  - **With the following core objectives:**
    - Environmental protection
    - Health and quality of life of citizens
  - **With 8 core areas**
    - Climate action: climate neutrality
    - Clean energy: sustainable use of resources and energy savings
    - Sustainable industry: circular economy and making industrial production more sustainable
    - Construction and renovation: more energy-efficient buildings
    - Biodiversity: protecting and restoring ecosystems
    - From farm to fork: **a sustainable food system**, from production to consumption
    - Sustainable mobility: promoting zero-emission means of transport
    - Pollution reduction: zero pollution for air, water and soil

### 4.1.2 CSRD - ESRS

- Who? EU
- When? Since 5/1/2023
- What?
  - The **Corporate Sustainability Reporting Directive (CSRD)** is the EU's new mandatory sustainability reporting directive that replaces the Non-Financial Reporting Directive (NFRD).

- **For whom is it mandatory?**

- All listed companies (on EU stock exchanges) with the exception of listed micro-companies
- All large companies, i.e. companies that meet at least **two of the three** following conditions:

> € 50 million  
turnover

> € 25 million  
assets  
(balance)

>250  
employees

- **How?**

- Reporting via European Sustainability Reporting Standards (ESRS) – developed by the European Financial Reporting Advisory Group (EFRAG)

- **Whet:**

- CSRD: [Directive - 2022/2464 - EN - EUR-Lex \(europa.eu\)](#)
- ESRS: [EUR-Lex - 02023R2772-20231222 - EN - EUR-Lex \(europa.eu\)](#)

- In Belgium, the Parliament adopted the law converting the Corporate Sustainability Reporting Directive (CSRD) into federal law on 28 November 2024. Companies that fall within the scope of the CSRD (see above) will have to report on the sustainability issues set out in the legislation from 2025 onwards.

**Entry into force of the CSRD – timeline:**

- Large European public-interest companies with more than 500 employees and large third-country listed companies with more than 500 employees: reporting in 2025 for the financial year 2024.
- Other large European companies and other listed companies from third countries: reporting in 2026 on the financial year 2025.
- Listed SMEs (excluding micro-enterprises): reporting in 2027 for the financial year 2026.
- Non-European companies with a net turnover of >€150 million (if they have a subsidiary or branch in the EU): reporting in 2029 for the financial year 2028.

### 4.1.3 VSME

For **non-listed SMEs**, EFRAG has started a **voluntary set of** Voluntary Sustainability Reporting Standards (VSME). This VSME aims to harmonize the current ESG data requirements.

The VSME consists of two modules:

1. Basic module
2. Comprehensive module

The final version of the revised VSME has been incorporated into this sectoral sustainability report and supplemented with questions specifically related to our sector.

## 4.2 APPENDIX B OF THE VSME: LIST OF POSSIBLE SUSTAINABILITY ISSUES

December 2024 release

Sustainability issue addressed in the [draft of the] current ESRS		
Subject	Sustainability issue: Subtheme	Sustainability issue: sub-subtheme
Climate change	<ul style="list-style-type: none"> <li>- Adapting to climate change</li> <li>- Climate change mitigation</li> <li>- Energy</li> </ul>	
Pollution	<ul style="list-style-type: none"> <li>- Air pollution</li> <li>- Pollution of water</li> <li>- Contamination of the soil</li> <li>- Pollution of living organisms and food sources</li> <li>- Substances of concern</li> <li>- Substances of very high concern</li> <li>- Microplastics</li> </ul>	
Water and marine resources	<ul style="list-style-type: none"> <li>- Water</li> <li>- Marine resources</li> </ul>	<ul style="list-style-type: none"> <li>- Water consumption</li> <li>- Extraction of water</li> <li>- Water discharges</li> <li>- Water discharges into the oceans</li> <li>- Extraction and use of marine resources</li> </ul>
Biodiversity and ecosystems	<ul style="list-style-type: none"> <li>- Direct impact drivers of biodiversity loss</li> </ul>	<ul style="list-style-type: none"> <li>- Climate change</li> <li>- Land use change, freshwater use change and marine use change</li> <li>- Direct exploitation</li> <li>- Invasive alien species</li> <li>- Pollution</li> <li>- Others</li> </ul>
	<ul style="list-style-type: none"> <li>- Effects on the condition of species</li> </ul>	Examples: <ul style="list-style-type: none"> <li>- Size of the species population</li> <li>- Global risk of species extinction</li> </ul>
	<ul style="list-style-type: none"> <li>- Impacts on the size and condition of ecosystems</li> </ul>	Examples: <ul style="list-style-type: none"> <li>- Soil degradation</li> <li>- Desertification</li> <li>- Soil sealing</li> </ul>
	<ul style="list-style-type: none"> <li>- Effects and dependencies of ecosystem services</li> </ul>	
Circular economy / circular economy	<ul style="list-style-type: none"> <li>- Inflow of resources, including resource use</li> <li>- Outflow of resources related to products and services</li> <li>- Waste</li> </ul>	

Own staff	<ul style="list-style-type: none"> <li>- Working conditions</li> </ul>	<ul style="list-style-type: none"> <li>- Job security</li> <li>- Working time</li> <li>- Adequate wages</li> <li>- Social dialogue</li> <li>- Freedom of association, the existence of works councils and information,</li> <li>- Consultation and participation rights of employees</li> <li>- Collective bargaining, including the percentage of workers covered by collective labour agreements</li> <li>- Work-life balance</li> <li>- Health and safety</li> </ul>
	<ul style="list-style-type: none"> <li>- Equal treatment and equal opportunities for all</li> </ul>	<ul style="list-style-type: none"> <li>- Gender equality and equal pay for work of equal value</li> <li>- Training and skills development</li> <li>- Employment and inclusion of persons with disabilities</li> <li>- Measures against violence and harassment at work</li> <li>- Diversity</li> </ul>
	<ul style="list-style-type: none"> <li>- Other work-related rights</li> </ul>	<ul style="list-style-type: none"> <li>- Child labour</li> <li>- Forced labour</li> <li>- Adequate housing</li> <li>- Privacy</li> </ul>
Employees in the value chain	<ul style="list-style-type: none"> <li>- Working conditions</li> </ul>	<ul style="list-style-type: none"> <li>- Secure employment</li> <li>- Working time</li> <li>- Adequate wages</li> <li>- Social dialogue</li> <li>- Freedom of association, including the existence of works councils</li> <li>- Collective bargaining</li> <li>- Work-life balance</li> <li>- Health and safety</li> </ul>
	<ul style="list-style-type: none"> <li>- Equal treatment and opportunities for all</li> </ul>	<ul style="list-style-type: none"> <li>- Gender equality and equal pay for work of equal value</li> <li>- Training and skills development</li> <li>- The employment and inclusion of persons with disabilities</li> <li>- Measures against violence and harassment at work</li> <li>- Diversity</li> </ul>
	<ul style="list-style-type: none"> <li>- Other work-related rights</li> </ul>	<ul style="list-style-type: none"> <li>- Child labour</li> <li>- Forced labour</li> <li>- Adequate housing</li> <li>- Water and sanitation</li> <li>- Privacy</li> </ul>

Affected communities	<ul style="list-style-type: none"> <li>- Economic, social and cultural rights of the Communities</li> </ul>	<ul style="list-style-type: none"> <li>- Adequate housing</li> <li>- Sufficient food</li> <li>- Water and sanitation</li> <li>- Country-related effects</li> <li>- Security implications</li> </ul>
	<ul style="list-style-type: none"> <li>- Communities' civil and political rights</li> </ul>	<ul style="list-style-type: none"> <li>- Freedom of expression</li> <li>- Freedom of assembly</li> <li>- Consequences for human rights defenders</li> </ul>
	<ul style="list-style-type: none"> <li>- Rights of indigenous communities</li> </ul>	<ul style="list-style-type: none"> <li>- Free, prior and informed consent</li> <li>- Self-determination</li> <li>- Cultural rights</li> </ul>
Consumers and end-users	<ul style="list-style-type: none"> <li>- Information-related effects on consumers and/or end-users</li> </ul>	<ul style="list-style-type: none"> <li>- Privacy</li> <li>- Freedom of expression</li> <li>- Access to (qualitative) information</li> </ul>
	<ul style="list-style-type: none"> <li>- Personal safety of consumers and/or end-users</li> </ul>	<ul style="list-style-type: none"> <li>- Health and safety</li> <li>- Security of a person</li> <li>- Protection of children</li> </ul>
	<ul style="list-style-type: none"> <li>- Social inclusion of consumers and/or end-users</li> </ul>	<ul style="list-style-type: none"> <li>- Non-discrimination</li> <li>- Access to products and services</li> <li>- Responsible marketing practices</li> </ul>
Business conduct	<ul style="list-style-type: none"> <li>- Company culture</li> <li>- Protection of whistleblowers</li> <li>- Animal welfare</li> <li>- Political commitment</li> <li>- Managing supplier relationships, including payment practices</li> </ul>	
	<ul style="list-style-type: none"> <li>- Corruption and bribery</li> </ul>	<ul style="list-style-type: none"> <li>- Prevention and detection including training</li> <li>- Incidents</li> </ul>

## 4.3 CALCULATING THE CO<sub>2</sub> EQUIVALENT FOR FOSSIL FUELS

### 4.3.1 How to calculate?

To calculate CO<sub>2</sub> equivalent for fuels, you can calculate the CO<sub>2</sub> emission factor per litre and multiply it by the amount (litres) consumed.

The Flemish Energy and Climate Agency publishes standard CO<sub>2</sub> emission factors, net calorific values and similar weights of fossil fuels on their website: <https://www.vlaanderen.be/veka/energie-en-klimaatbeleid-in-cijfers/co2-emissiefactoren-calorische-onderwaarden-en-soortelijke-gewichten-van-fossiele-brandstoffen-en-elektriciteit>

*Table 3: VEKA table with CO<sub>2</sub> emission factors, net calorific values and similar weights of fossil fuels (date: 20/06/2024)*

Brandstof <sup>ii</sup>	Standaard CO <sub>2</sub> -emissiefactor		Standaard calorische onderwaarde	Standaard soortelijk gewicht
	tCO <sub>2</sub> /TJ <sub>oww</sub>	tCO <sub>2</sub> /MWh <sub>oww</sub>	GJ <sub>oww</sub> /ton	ton/1.000 liter of ton/m <sup>3</sup>
Aardgas <sup>v</sup>	56,22 <sup>v</sup>	0,202 <sup>vi</sup>	n.v.t.	n.v.t.
Lamppetroleum (turbojets)	71,900	0,259	43,800	0,800
Lichte stookolie	74,100	0,267	43,000	0,850
Butaan	63,100	0,227	47,300	0,580
Propaan	63,100	0,227	47,300	0,510
(extra) Zware stookolie	77,400	0,279	40,400	0,950
LPG	63,100	0,227	47,300	0,540
CNG <sup>viii</sup>	56,22	0,202	48,00	0,175
Benzine	72,26	0,260	43,774	0,750
Diesel/gasolie	74,24	0,267	42,695	0,840

#### Steps:

1. Look up the **CO<sub>2</sub> emission factor** per energy content, expressed in tCO<sub>2</sub>/TJ<sub>olen</sub> (tonnes of CO<sub>2</sub> per terajoule).
2. Look up the **net calorific value** for the fuel in question, expressed in GJ<sub>olen</sub>/ton (gigajoules per tonne).
3. Look up the **specific gravity** for the fuel, expressed in tonnes/1,000 litres or tonnes/m<sup>3</sup>.

#### Computation:

Calculate how much CO<sub>2</sub> is released per liter of fuel = the emission factor per liter of fuel:

1. CO<sub>2</sub> per tonne of petrol = CO<sub>2</sub> emission factor x calorific value
2. CO<sub>2</sub> per litre of petrol = (CO<sub>2</sub> per tonne of petrol/1000) x specific gravity

#### Example for petrol:

1. CO<sub>2</sub> per tonne of petrol:  $72.26 \text{ tCO}_2/\text{TJ} \times 43.774 \text{ GJ/tonne} = 3,163.9 \text{ CO}_2/\text{tonne}$
2. CO<sub>2</sub> per liter of petrol:  $(3,163.9 \text{ CO}_2/\text{tonne} / 1,000) \times 0.750 \text{ kg/l} = 2.373 \text{ kg CO}_2/\text{liter}$

The **emission factor for gasoline** in this case is about 2.373 kg CO<sub>2</sub> per liter. This means that each liter of petrol emits around **2.37 kg of CO<sub>2</sub>** when burned.

### 4.3.2 Emission factors – sources

In addition to the Flemish Energy and Climate Agency (VEKA), other organisations also publish accessible sources with emission factors:

- EFDB Emission factor database of Intergovernmental Panel on Climate Change (IPCC): [https://www.ipcc-nggip.iges.or.jp/EFDB/find\\_ef.php?reset=](https://www.ipcc-nggip.iges.or.jp/EFDB/find_ef.php?reset=)
- Base Carbone (tool of Agence de la Transition Ecologique – French public authority): <https://base-empreinte.ademe.fr/>
- European Residual Mix of Association of Issuing Bodies (AIB) – calculations of the emission factor for electricity from mixed/untraceable sources:
  - o Link to website overview page: <https://www.aib-net.org/facts/european-residual-mix>
  - o Direct link to excel of 2023: <https://www.aib-net.org/sites/default/files/assets/facts/residual-mix/2023/RM%20calculation%20results.xlsx>

## 4.4 ABBREVIATIONS, CONCEPTS, GLOSSARY

### 4.4.1 Concepts and glossary

<b>Cradle-to-gate</b>	Principle whereby the ecological impact of products is calculated from the extraction of the raw materials to the production of the product in question, also known as the 'upstream' activities in the lifecycle of the product.
<b>Sustainability dashboard</b>	A sustainability dashboard is a visual tool that can help your business measure, monitor, and improve your sustainability performance. The dashboard collects, analyses and presents data on the various sustainability aspects of your choice in a clear way.
<b>Downstream</b>	The activities/processes that come after you in the value chain. Downstream emissions are a representation of the scope 3 (indirect) emissions caused by your products further down the value chain. E.g. the emissions caused by the heating of your product by the consumer, the emissions caused by the cooling of your product by the retailer, ...
<b>European Financial Reporting Advisory Group (EFRAG)</b>	This organization converts EU guidelines on finance and sustainability into standards and has written the ESRS, LSME and VSME standards. <a href="https://www.efrag.org/en">https://www.efrag.org/en</a>
<b>European Sustainability Reporting Standards (ESRS)</b>	These standards were derived by EFRAG from the CSRD, they specify what information must be included in the sustainability reports of large companies and listed companies (including listed SMEs).
<b>Global Warming Potential (GWP)</b>	Global Warming Potential is a term used to describe the relative strength of a greenhouse gas, molecule by molecule. It indicates how long the greenhouse gas remains active in the atmosphere. The GWPs that are currently used, are calculated over a period of 100 years. CO <sub>2</sub> is taken as a reference gas and has a GWP of 1 (over 100 years).
<b>Greenhouse Gas Protocol (GHG)</b>	The Greenhouse Gas protocol provides standards, guidance, tools and training for companies and governments to manage emissions that contribute to global warming. Globally, it is the most widely used standard for emissions reporting. <a href="https://ghgprotocol.org/">https://ghgprotocol.org/</a>
<b>Upstream</b>	The activities/processes that precede you in the value chain. Upstream emissions are a representation of the scope 3 (indirect) emissions caused by the suppliers earlier in the value chain. E.g. the emissions caused by the transport of raw materials to your production unit, the emissions of methane by the animals that you will process later in the chain, etc.
<b>Voluntary reporting standard for SMEs (VSME)</b>	These standards were derived by EFRAG from the ESRS and serve to help unlisted SMEs and micro-enterprises with their sustainability reporting, i.e. to be able to answer the ESG questions of their banks and the partners in their value chain.



#### 4.4.2 Abbreviation list

EFRAG	European Financial Reporting Advisory Group
ESRS	European Sustainability Reporting Standards
GWP	Global Warming Potential
GHG	Greenhouse Gas Protocol
LSME	Listed SME standards
VSME	Voluntary reporting standard for SMEs