



**Comparison of GHG accounting categories across the three main methodologies**  
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Topic			
	ISO 14064	BEGES (original French version)	GHG Protocol
<b>GHG Categories</b>	<b>Category 1: Direct GHG emissions and removals in tonnes of CO<sub>2</sub>e</b>	<b>1. Émissions directes de GES</b>	<b>Scope 1 Direct Emissions</b>
	1.1 Direct emissions from stationary combustion	1.1 Émissions directes des sources fixes de combustion	Stationary combustion emissions
	1.2 Direct emissions from mobile combustion	1.2 Émissions directes des sources mobiles de combustion	Mobile combustion emissions
	1.3 Direct process emissions and removals arise from industrial processes	1.3 Émissions directes des procédés hors énergie	Process emissions
	1.4 Direct fugitive emissions arise from the release of greenhouse gases in anthropogenic systems	1.4 Émissions directes fugitives	Fugitive emissions
	Direct emissions in tonnes of CO <sub>2</sub> e from biomass	1.5 Émissions issues de la biomasse (sols et forêts)	Combustion of biomass (optional)
	<b>Category 2: Indirect GHG emissions from imported energy</b>	<b>2. Émissions indirectes associées à l'énergie</b>	<b>Scope 2 Indirect emissions</b>
	2.1 Indirect emissions from imported electricity	2.1 Émissions indirectes liées à la consommation d'électricité	Emissions from purchased electricity
	2.2 Indirect emissions from imported energy	2.2 Émissions indirectes liées à la consommation d'énergie autre que	Emissions from steam, heat or cooling consumption

		l'électricité	
	<b>Category 3: Indirect GHG emissions from transportation</b>	<b>3. Émissions indirectes associées au transport</b>	<b>Scope 3 Other indirect emissions</b>
	3.1 Emissions from Upstream transport and distribution	3.1 Transport de marchandise amont	4. Upstream transportation and Distribution
	3.2 Emissions from Downstream transport and distribution for goods	3.2 Transport de marchandise aval	9. Downstream Transportation and distribution
	3.3 Emissions from employee commuting includes emissions	3.3 Déplacements domicile-travail	7. Employee commuting
	3.4 Emissions from Client and visitor transport	3.4 Déplacements des visiteurs et des clients	not specified
	3.5 Emissions from Business Travels	3.5 Déplacements professionnels	6. Business Travels
	<b>Category 4: Indirect GHG emissions from products used by organization</b>	<b>4. Émissions indirectes associées aux produits achetés</b>	<b>1. Purchased Goods and Services</b>
	4.1 Emissions from purchased goods	4.1 Achats de biens	1. Purchased Goods and Services 3. Fuel and energy related activities not included in Scope 1 or Scope 2
	4.2 Emissions from Capital goods	4.2 Immobilisations de biens	2. Capital Goods
	4.3 Emissions from the disposal of solid and liquid waste	4.3 Gestion des déchets	5. Waste generated in Operations
	4.4 Emissions from the use of assets	4.4 Actifs en leasing amont	8. Upstream leased assets

	4.5 Emissions from the use of services that are not describe int he above subcategories (consulting, cleaning, maintenance, mail delivery, bank, etc..)	4.5 Achats de services	1. Purchased Goods and Services
	<b>Category 5: Indirect GHG emissions associated with the use of products from the organization</b>	<b>5. Émissions indirectes associées aux produits vendus</b>	<b>10. Processing of sold products</b>
	5.1 Emissions or removals from the use stage of the product	5.1 Utilisation des produits vendus	1. Purchased Goods and Services 11. Use of sold products
	5.2 Emissions from downstream leased assets	5.2 Actifs en leasing aval	13. Downstream leased assets
	5.3 Emissions from end of life stage of the product	5.3 Fin de vie des produits vendus	12. End of life treatment of sold products
	5.4 Emissions from investments	5.4 Investissements	15. Investments
	<b>Category 6: Indirect GHG emissions from other sources</b>	<b>6. Autres émissions indirectes</b>	
	not specified	not specified	14. Franchises

## Analysis of key aspects of each GHG accounting methodology

Topic			
	ISO 14064	BEGES	GHG Protocol
<b>Purpose</b>	Provides a framework for organizations to quantify and report their GHG emissions. It's highly adaptable to various organizational contexts and project-level GHG quantification. Mainly focused on theory and methodology.	Specifically designed for organizations in France. BEGES is a regulatory requirement for larger companies. It focuses on comprehensive GHG accounting and aligns with national climate goals and it is in accordance with article L. 229-25 of the Environment Code in France.	Developed to provide standards and tools to help organizations measure and manage GHG emissions from both operations and value chains globally. Operational framework providing not only the necessary guidelines for GHG emissions calculation, but also practical examples to help develop the inventory.
<b>Principles</b>	Relevance, Completeness, Consistency, Accuracy, Transparency	Relevance, Completeness, Consistency, Accuracy, Transparency	Relevance, Completeness, Consistency, Accuracy, Transparency
<b>Regulatory requirement</b>	Voluntary disclosure	Mandatory disclosure for all companies present on French soil with more than 500 employees in metropolitan France and 250 employees in the overseas departments and regions. Companies that fall within the scope of French regulations must publish their Greenhouse Gas Emissions Balance according to the BEGES methodology on the ADEME website every four years.	Voluntary disclosure. However GHG Protocol is the main methodology used as a reference by legislations such as the European Union's Corporate Sustainability Reporting Directive (CSRD), the respective ESRS Standards and the GRI Standard.

<b>Reporting Boundaries</b>	ISO 14064 covers both organizational and project-level GHG quantification, monitoring, and reporting. Allows for flexible reporting boundaries based on organizational or operational control.	Reporting is strictly defined by French law, focusing on significant emissions within the organization's operational control. The methodology generally aligns with a control-based approach.	Requires clear definitions of organizational and operational boundaries, with equity share or control approaches. The GHG Protocol focuses primarily on corporate-level accounting and reporting
<b>Process steps</b>	Planning, identifying, calculating, reporting, and verifying	Scoping, Identification of sources and emissions, Data collection, Assessment and analysis, Transition plan, Online reporting	Planning, identifying, calculating, reporting, and verifying
<b>Exclusions</b>	The GHG report content specifies that explanation of the exclusion of any significant GHG sources, sinks or operations from the quantification shall be justified. (point "i" of the paragraph "9.3.1 Required information")	A significant GHG category may be excluded if there's no calculation method or access to source data, but the transition plan must address this, and the category must be estimated in the next balance sheet. This exclusion is only allowed for the initial balance sheet using the V5.0 method. Indirect emissions categories must be fully included or excluded, with no partial measures. Mandatory categories not applicable should be marked as zero, and excluded categories left blank. Any exclusion must be justified in the GHG emissions report.	The 'comply or explain' principle applies to the GHG Protocol, meaning that organizations should either comply with the reporting guidelines or provide a clear and justifiable explanation for any deviations or exclusions.

<b>Scopes</b>	According to ISO 14064-1, it is mandatory to report direct emissions and indirect emissions from energy consumption. Other indirect emissions are optional, but organizations are encouraged to report them if they are relevant and significant to the organization's greenhouse gas inventory.	If your company falls under the scope of the Declaration de Performance Extra-Financière (DPEF), which is the French transposition of the Non-Financial Reporting Directive (NFRD), you are required to report significant indirect emissions (Scope 3). On the other hand, if your company is not subject to the DPEF, you are only required to report on Scope 1 and 2 emissions, with reporting on Scope 3 emissions being voluntary using the BEGES methodology. However, it is highly recommended that Scope 3 emissions be included in the measurement to enhance transparency regarding the impact of the entire value chain of an organization.	The use of the GHG Protocol standard is voluntary, however governments and programs (such as CSRD) may decide to rely on the standards when creating mandatory programs or regulations. The GHG Protocol recommends reporting emissions in Scope 1, Scope 2 and Scope 3.
<b>Depreciation</b>	not specified	Considered (GHG emissions are spread over the depreciation period).	Not considered (GHG emissions are allocated entirely to the year of purchase).
<b>Approach location/market</b>	not specified	In the context of BEGES, because it is a methodology mandated by French regulation, it aligns with the national framework, which typically uses the location-based approach for calculating electricity-related emissions, focusing on the actual mix of electricity production in France.	The GHG Protocol allows for both location-based and market-based approaches when calculating emissions related to electricity consumption, particularly for Scope 2 emissions, which allows for greater transparency and better insight into the effectiveness of their energy procurement strategies.

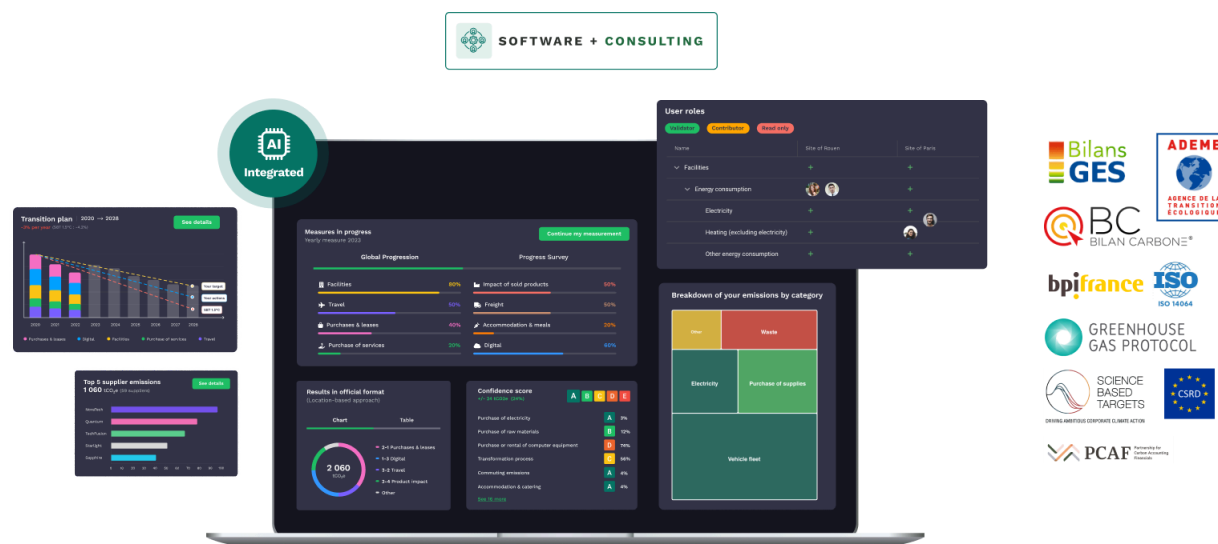
<b>Uncertainty</b>	The organization shall assess the uncertainty associated with the quantification approaches (e.g. data used for quantification and models) and conduct an assessment that determines the uncertainty at the GHG inventory category level.	It is recommended that the Organization provides an assessment of the uncertainty surrounding the main items concerned. These elements may be qualitative or quantitative. As part of an internal process, it is recommended that these uncertainties be assessed, taking into account, in particular, the uncertainty in the activity data and the uncertainty in the emission factor, and that the IPCC recommendations on good practice and uncertainty management for national inventories be used.	Uncertainty is considered and recommended in the GHG Protocol; it is acknowledged and addressed through guidance on managing, minimizing, and transparently reporting it to ensure the credibility of GHG emissions inventories.
<b>Transition plan</b>	The organization may plan and implement GHG reduction initiatives to reduce or prevent GHG emissions or enhance GHG removals. If implemented, the organization should quantify GHG emission or removal differences attributable to the implementation of GHG reduction initiatives.	A transition plan must be attached to the final report. It aims to reduce the Corporate Entity's greenhouse gas emissions and presents the objectives, resources and actions envisaged to this end, as well as, where applicable, the actions implemented during the previous assessment	Companies that report using GHG Protocol can set two broad types of GHG reduction target metrics — an absolute emissions target or an intensity emissions target. Intensity targets specify emissions reductions relative to productivity or economic output such as tons of CO <sub>2</sub> e/lbs. of product produced.
<b>Biogenic Emissions</b>	Requires the separate reporting of biogenic emissions, with specific guidelines on accounting for carbon removals.	Mandatory separate reporting of biogenic emissions, particularly important in sectors like agriculture and forestry.	Provides detailed guidance on accounting for biogenic emissions, emphasizing their separation from other emissions.

<b>Emission Factors</b>	Uses internationally recognized emission factors, with the flexibility to apply sector-specific factors.	Requires the use of emission factors provided by French authorities (i.e. Base Empreinte provided by ADEME) or specific to the sector, reflecting national regulations.	Encourages the use of internationally recognized factors, such as those from IPCC, Ecoinvest, DEFRA etc, but allows for national adjustments.
<b>Verification and Assurance</b>	ISO 14064-3 provides a framework for the verification of GHG inventories, focusing on accuracy and transparency with specific guidelines for third-party verification. Besides, the GHG Inventory gets certified by an accredited certifier.	Mandatory verification as per French regulations. Verification must align with national standards and often involves third-party auditors.	Encourages third-party verification but leaves the approach open.No certification is issued when developing the inventory following the GHG Protocol guidelines. The inventory may be applied to Limited or Reasonable Assurance under ISAE 3000 and ISAE 3410.
<b>Global Applicability</b>	Widely recognized and used internationally, adaptable across different regulatory environments.ISO 14064 is favored by regulatory bodies such as the UNFCCC and CDM	Primarily used in France but recognized for its thoroughness. Adaptability is limited due to specific national regulations.	Most widely adopted globally, especially in multinational corporations. Aligns with most voluntary and mandatory reporting programs like Science Based Targets initiative (SBTi), Carbon Disclosure Project (CDP), and the Global Reporting Initiative (GRI). and provides comprehensive guidelines for measuring and managing greenhouse gas emissions covering a broader range of sectors and activities
<b>Flexibility</b>	High flexibility allows it to be adapted to various sectors and organizational needs. It can be used for both corporate and project-level reporting and it has a greater flexibility for interpretation.	Least flexible due to mandatory national requirements (Decree No. 2022-982 of July 1, 2022). Designed specifically for compliance with French regulations, making it less adaptable outside France.	Less flexible due to prescriptive nature, particularly regarding Scope 3 categories. However, it provides clear and detailed guidance, making it easier to implement.



<b>Integration with Other Standards and directives</b>	Can be integrated with other international standards and methodologies. It's often used in conjunction with other ISO standards. It is also mentioned in the ESRS Standards	Primarily integrates with French environmental regulations but is also recognized within broader EU climate initiatives.	Integrates well with other sustainability frameworks like CDP, TCFD, and aligns with international climate agreements like the Paris Agreement. The GHG Protocol is also particularly well-suited for compliance with the CSRD, specifically the climate section of the ESRS
<b>Reporting Requirements</b>	Provides general guidance, allowing organizations to tailor their reporting based on specific needs and goals.	Mandatory for large organizations in France, with specific reporting formats required by law. Reporting is more standardized and less adaptable.	Requires detailed reporting across all scopes. Reporting is designed to be comprehensive and comparable across different sectors.
<b>Sector-Specific Guidance</b>	General guidance applicable across various sectors, with adaptability based on industry-specific needs.	Highly detailed sector-specific guidance, particularly focused on sectors relevant to the French economy, such as energy, transport, and waste management.	Provides some sector-specific guidance, particularly in high-emission industries like energy, manufacturing, and transport.
<b>Transparency and Documentation</b>	Requires detailed documentation and transparency in reporting, particularly in data selection and reporting boundaries.	High detailed level of transparency required by law, with strict documentation guidelines to ensure compliance with French regulations.	Emphasizes transparency, with detailed guidance on how to document and report emissions across all scopes.
<b>Strategic use</b>	Best suited for companies seeking a recognized international standard that can be adapted to various contexts. It is particularly useful for organizations that want to integrate GHG accounting into their broader environmental management systems.	Essential for companies operating in France that must comply with national laws. It is also a useful tool for demonstrating compliance with French environmental policies and can enhance a company's reputation within the country	Often used by companies looking to lead in sustainability and engage in global climate initiatives. It is the go-to standard for comprehensive reporting and is especially important for companies aiming to reduce their emissions across the entire value chain.

## How ClimateSeed can support you with your GHG accounting?



**ClimateSeed** is an impact-driven company that supports **over 200 organizations** in their decarbonization journey, offering a **comprehensive hybrid solution** that combines **carbon footprint measurement and reduction software (GEMS)**, supported by **expert decarbonization consultants**.

Our software digitalizes GHG accounting, **simplifies data collection**, and enhances **collaboration among stakeholders** for scopes 1, 2, and 3. **Powered by AI**, it centralizes and analyzes data, and automatically applies the most relevant emission factors to **ensure high accuracy**. This enables automated carbon footprint calculations **in compliance with international standards**: GHG Protocol, Bilan Carbone®, and ISO 14064. Results are displayed through a **dynamic dashboard**.

It also features dedicated modules for **Private Equity** to assess the financed emissions of investment portfolios and for **event organizers** to evaluate event-related emissions. With data encryption, GDPR and ISO 27001 compliance, and continuous monitoring through regular audits, GEMS guarantees the **highest level of security**. **Contact us for more information**.

