



LIFE14 GIC/FR/000475 Clim'Foot



## **ACTION C5.2: STUDY ON THE REPLICABILITY AND TRANSFERABILITY POTENTIAL OF THE CLIM'FOOT PROJECT**

### **Similarities and differences between the OEF and CFO approaches**

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In this document, a general analysis of the similarity and differences between CFO approach (the GHG Protocol and ISO 14064) and the OEF methodology is presented.

The Organisation Environmental Footprint (OEF) is a Life Cycle Assessment (LCA) based method to quantify the relevant environmental impacts of an organisation. The OEF methodology has been defined in the “Commission Recommendation of 9 April 2013 on the use of common methods to measure and communicate the life cycle environmental performance of products and organisations (2013/179/EU)” (OEFs) and from 2014 the EU Commission are working on the document “Organisation Environmental Footprint - Sector Rules Guidance” (OEFSR), now at the version 6.3 (May 2018) with the primary objective to fix a consistent set of rules to calculate the potential environmental impacts of an organisation in a given sector. Sector specific rules analogous to OEFSRs exist in standards for calculating GHG emissions, such as the GHG Protocol. The OEFSR is a document in evolution. Indeed, there are several differences among the OEF guide (EC, 2013) and the OEFSR (EC, 2018) in topics such as the impact categories considered, data quality requirements, end-of-life formula. In the publication of the Resource Efficiency Roadmap the commission defined the future role of the environmental footprint methodology:

1. Establish a common methodological approach to enable Member States and the private sector to assess, display and benchmark the environmental performance of products, services and companies based on a comprehensive assessment of environmental impacts over the life-cycle ('environmental footprint');
2. Ensure better understanding of consumer behaviour and provide better information on the environmental footprints of products, including preventing the use of misleading claims, and refining eco-labelling schemes.

The GHG Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions. Building on a 20-year partnership between World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), GHG Protocol works with governments, industry associations, NGOs, businesses and other organizations. GHG Protocol is developing standards, tools and online training that helps countries and cities track progress towards their climate goals.

The ISO 14064 standards have the aim to guarantee (trust) the processes of reporting and monitoring of GHG, in relation to the emission declarations by the organizations and projects for their reduction.

Authors, for the purpose of this document, have made a comparison analysis with the OEFSR (2018) last available version. The comparison is based on the approach used in document “Analysis of Existing Environmental Footprint Methodologies for Products and Organisations: Recommendations, Rationale, and Alignment”, (EC-IES-JRC, 2011), the description of the



considered methodological aspects is reported in the Annex. In Table 26 provides list of methodological issues considered in the analysis.

Table 26 Comparison of ISO14064, GHG Protocol and OEFSR (EC, 2018)

Methodological Consideration	OEFSR (EC, 2018)	ISO 14064	GHG Protocol all documents
<b>Life Cycle Thinking (LCT) (Life Cycle Approach)</b>	Yes	Scope 1, 2 (not LCT) and 3 optional (LCT)	Scope 1, 2 (not LCT) and 3 optional (LCT)
<b>Communication Target Audiences</b>	B2B and B2C	B2B and B2C	B2B and B2C
<b>Functional Unit</b>	Concept of functional unit (organisation as goods/service provider) and reference flow (Product Portfolio = the sum of goods/services provided by the organisation over the reporting interval)	Does not use FU and reference flow concept	Does not use FU and reference flow concept
<b>System Boundary</b>	Default cradle-to- grave, control approach (financial and/or operational).	Scope 1, 2 mandatory and 3 optional, choice of equity share, financial control, or operational control approach	Scope 1, 2 mandatory and 3 optional. Boundaries defined based on equity share or control criteria.
<b>Cut Off</b>	Not allowed	Based on considerations of materiality, feasibility and cost effectiveness.	Discouraged
<b>Covered Emissions / Impact Categories</b>	A default set of 16 mid-point impact categories (mandatory) and Out of these 16 impact categories the sector OEFSR shall list those that are most relevant for the specific sector. Optional the normalization and weighting	GHG emissions	GHG emissions
<b>Data Quality</b>	Data quality of each dataset and the total EF study shall be calculated and reported. Data quality is assessed against four criteria: <ul style="list-style-type: none"> <li>- Technological (TeR),</li> <li>- Geographical (GR),</li> <li>- Time (TiR),</li> <li>- Precision/uncertainty (P).</li> </ul> $DQR=(TeR+GR+TiR+P)/4$	Requires data management plan + uncertainty assessment. Refers to ISO 14064-3 for validation / verification requirements.	Recommends qualitative data quality scoring for scope 3 calculations. Specifies criteria for a data management plan. Guidelines on the GHG website for uncertainty assessments.



Methodological Consideration	OEFSR (EC, 2018)	ISO 14064	GHG Protocol all documents
	<p>The DQR of the newly developed dataset shall be calculated for all process that account at least 80% of the total environmental impact</p>		
<p><b>Allocation</b></p>	<p>OEF multi- functionality hierarchy: (1) subdivision or system expansion; (2) allocation based on a relevant underlying physical relationship (here substitution may apply); (3) allocation based on some other relationship</p>	<p>No guidance</p>	<p>Companies should avoid or minimize allocation if possible. Guide propose such allocation methods: Physical, economic, other (Allocating the emissions of an activity based on industry-specific or company- specific allocation methods)</p>
<p><b>Biogenic (Carbon) Emissions and Removals</b></p>	<p>Defines two options for modelling the biogenic carbon:            Option 1: modelling all biogenic carbon uptakes and releases. This allows carbon tracking and assures that all flows are included. It may require complex modelling for a zero impact in the end.            Option 2: simplified modelling of only those flows that influence the climate change impact results (namely biogenic methane emissions). Moreover, with a lifetime beyond 100 years, a carbon credit shall be modelled as an emission uptake as 'resource from air' using the elementary flow 'carbon dioxide (biogenic-100yr).</p>	<p>Carbon storage shall be reported separately.</p>	<p>Biogenic emissions and removals to be included in the assessment. It includes biogenic carbon in the inventory for all products and requires separate reporting for additional transparency.</p>



Methodological Consideration	OEFSR (EC, 2018)	ISO 14064	GHG Protocol all documents
<b>Climate Change Factors</b>	Consider the emission factor IPCC (2013) that include the climate-carbon feedback for different substances and some other correction EF factors. For the carbon monoxide (fossil) the EF is 1.57, for CH <sub>4</sub> (fossil) 36.75 and CH <sub>4</sub> (biogenic) 34. Moreover, for time horizon beyond 100 years, EF of Carbon dioxide (biogenic-100yr) from air is -1 CO <sub>2eq</sub>	The use of the latest IPCC Fifth Assessment Report, 2013 (AR5) values is recommended. CH <sub>4</sub> (fossil) 30 and CH <sub>4</sub> biogenic 28. The GWP values provided here from the AR5 for non-CO <sub>2</sub> gases do not include climate-carbon feedbacks.	The use of the latest IPCC Fifth Assessment Report, 2013 (AR5) values is recommended. CH <sub>4</sub> 30 and CH <sub>4</sub> biogenic 28. The GWP values provided here from the AR5 for non-CO <sub>2</sub> gases do not include climate-carbon feedbacks.
<b>Emission Off-setting</b>	Shall not be included in the assessment.	Reductions from purchased credit or other external projects must be documented and reported separately.	Inventory method reported separately
<b>Review</b>	During the transition phase or until a European policy regulating EF based information is adopted by the Commission, it is not recommended to carry out any communication of the environmental profile of a product or organisation in absence of a valid OEFSR. In any case, if and when such a study is carried out, it shall be subject to an independent third-party review carried out in accordance to ISO 14044, ISO 14071 and all complementary requirements included in this Guidance with reference to review of OEFSRs.	Review report or 3 <sup>rd</sup> party verification statement should be available for public assertions. Required level of validation and verification depends on several criteria.	Provides detailed guidance, but not a requirement.