

# LCA for supporting corporate environmental reporting in the EU policy context: opportunity and challenges

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# Joint Research Centre – European Commission



The science and knowledge service of the European Commission, whose mission is to support EU policies with independent evidence throughout the whole policy cycle.

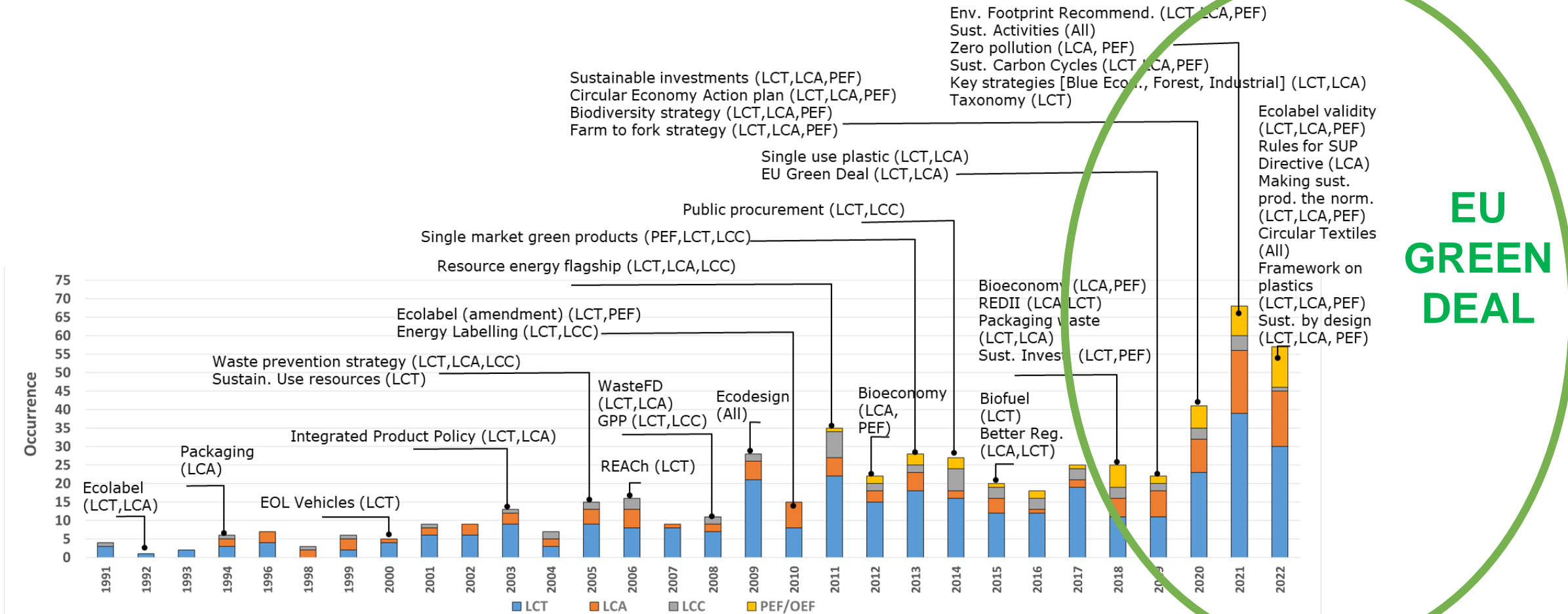
A screenshot of the website for the European Platform on Life Cycle Assessment (EPLCA). The page has a dark blue header with the European Commission logo and the text "European Commission | EU Science Hub | EPLCA". Below the header, the title "European Platform on Life Cycle Assessment" is displayed in white. A navigation menu includes "Home", "About us", "Methods", "Data", "LCA Projects", "Library", and "Contact". The main content area is white and features a welcome message: "WELCOME TO THE EUROPEAN PLATFORM ON LIFE CYCLE ASSESSMENT". Below this, there are three paragraphs of text explaining the EPLCA's mission and its support for LCA. At the bottom, there are four icons representing different aspects of the platform: "Environmental Footprint" (a green gear with a footprint), "ILCD" (a yellow circular arrow), "Life Cycle Projects" (a green circular flow diagram), and "Common Tools &amp; Data" (a green cylinder with a process icon).

# Contents

- Evolution of LCA in EU policies
- Overview of main policies addressing emissions and the related accounting approaches
- Concluding remarks



# Evolution of LCA in EU policies over the last 30 years



# Overview of policies and methods

**Corporate level**

**Product level**

Non-financial disclosure Directive

Corporate Sustainability Reporting Directive

Corporate Sustainability Due Diligence Directive

Green Claims Directive

Carbon Border Adjustment mechanism

Sustainable Finance

PEF

OEF

ETS

IED

**Individual plant level**

# Organisation Environmental Footprint (OEF)

## Commission Recommendation (EU) 2279/2021



- **OEF**: method to evaluate the environmental performances of an organization providing goods or services through a multi-criteria analysis, based on the EF method.
- **PEF**: method to evaluate the environmental performance of products and services

### Strengths

**Scientific robustness.** Based on a long-standing pilot and transition phase with hundreds of companies involved in different sectors.

**Reproducibility** of the results, based on prescriptive modelling rules.

**Multidimensional indicators,** 16 impact categories (including climate change)

### Challenges

Need of adhering to **stringent modelling and data requirements**, compared to standard LCA.

Certain aspects (beyond the existing 16 categories) are not assessed

**Transition phase:** ongoing update process for general rules and characterization factors

# Emission Trading Scheme (ETS) & Carbon Border Adjustment Mechanism (CBAM)

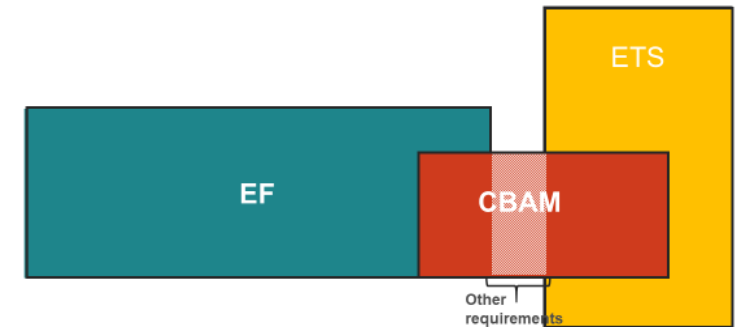
- **ETS:** mandatory mechanism to mitigate specified GHG emissions "Cap and trade"  
> 11.000 heavy energy-using installations and aviation.

- ≈ 45% EU's GHG emissions coverage

## ETS Accounting reporting and verification methods:

- **MRR:** Monitoring and reporting Regulation (ETS).
- **AVR:** Accreditation and verification Regulation (ETS)

- **CBAM:** Regulation (EU) 2023/956 aims at addressing imported goods, preventing carbon leakage in EU while incentivizing emissions reduction in third countries.



## Strengths

**ETS:** proven approach that could be used to increasingly discourage emissions in selected sectors

**CBAM:** more comprehensive modelling requirements

## Challenges

**ETS:** not based on LCA approach, limited in scope to mainly direct emissions

**CBAM:** under development

# SUSTAINABLE FINANCE – Taxonomy

Related Policies: [Regulation \(EU\) 2020/852](#); [Commission Delegated Regulation \(EU\) 2021/2139](#); [Commission Delegated Regulation \(EU\) 2022/1214](#).

- EU Taxonomy supports the classification of investments according to sustainability criteria, based on **6 environmental objectives**: a) Climate change mitigation, b) Climate change adaptation c) Sustainable use and protection of water and marine resources d) Transition to a circular economy e) Pollution prevention and control f) Protection and restoration of biodiversity and ecosystems
- **Criteria for climate change mitigation based on different methods e.g.:** Environmental Footprint; ISO 14064-1:2018, ISO 14067:2018, FAO Global Resources Assessment 2020, Directive 2018/2001 RED II, 2006 IPCC Guidelines for National Greenhouse Gas Inventories.



Strengths
Promote sustainable activities in many different sectors
Identify criteria (easy to be checked / verified) that activities should comply with to claim their belonging to taxonomy

Challenges
Uses the Do Not Significant Harm (DNSH) principle, but not necessarily following a LCA approach.
Criteria for different objectives are tailored for different sectors. The methods are not necessarily consistent across sectors and objectives.



# Non-financial reporting Directive (NFRD)

- NFRD (2014/95/EU) goal: transparency enhancement for large companies, to disclose non-financial information including: env. risk assessment, GHG emissions, energy consumption, water usage, waste management practices, environmental policies, targets, and measures taken to mitigate environmental risks.
- Promotion of Global Reporting Initiative (GRI), International Integrated Reporting Council (IIRC), etc.



## Strengths

Holistic environmental reporting. Opportunity to report scope 3 emissions.

Supply chain engagement. Potential increased collaboration especially for scope 3 emissions.

## Challenges

The development of guidance based on standards is ongoing for the Directive which is superseding this one

Completeness of information

# Corporate Sustainability Reporting Directive (CSRD)

- CSRD (2022/2464/EU) goal: enhance sustainability transparency by standardizing and mandating reporting on environmental, social, and governance (ESG) factors.
- Companies subject to CSRD will have to report according to *European Sustainability Reporting Standards*. Draft standards developed by the European Financial Reporting Advisory Group (EFRAG).
- EU Commission should adopt the first set of standards by June 2023, based on the drafts published by EFRAG.



## Strengths

Apply the content of Green Taxonomy criteria in conjunction with other relevant EU policies (Climate EU Law.)

Reference to standards for general reporting on sustainability.

## Challenges

Standardization under development, including for data availability and reliability.

Procedures for verification under development.

# Corporate Sustainability Due Diligence Directive (CSDDD) (proposal)

- Ensure that businesses address adverse impacts of their actions, including in their value chains inside and outside Europe.
- Large companies need to have a plan to ensure that their business strategy is compatible with limiting global warming to 1.5 °C (Paris Agreement). They are incentivized to contribute to sustainability and climate change mitigation goals.
- The EU Parliament adopted its position 1<sup>st</sup> June 2023 (final adoption expected by end 2023)

## Strengths

Fostering due diligence and high commitment at high-level of companies

Preventing scandals and fostering good practices for companies

## Challenges

Risk that commitments will not be substantial (greenwashing)

Following a life cycle thinking but not recommending any specific standard method (proposal under development).



# Green Claims Directive (proposal)

- Different types of claims will require different levels of substantiation. The proposal does not prescribe a single method and does not require conducting a full life-cycle analysis for each type of a claim.
- When specifying further the requirements for substantiation of explicit environmental claims, the Commission shall take into account scientific or other available technical information, including relevant international standards.



53% of green claims give vague, misleading or unfounded information



40% of claims have no supporting evidence



Half of all green labels offer weak or non-existent verification

## Strengths

Powerful tool for best performing companies to communicate their environmental performances

Build trust of consumers on green claims from companies (including member states also settings procedures for verification of the claims)

## Challenges

Claims are open to a variety of methods and different aspects to be reported (e.g. offsetting GHG emissions).

Need for robust data (especially for SME's) to substantiate the claims

# Concluding Remarks

## Opportunities

- Different existing policies in relation to carbon (and other environmental aspects) accounting and tools
- Opportunity for synergies and increase consistency in accounting approaches while encouraging compliant companies & less administrative and technical burdens.
- Policy driven provision of data, with a defined level of quality.
- Discussion ongoing also in different/additional domains (e.g. for natural capital accounting at corporate level following biodiversity strategy ambitions)

## Challenges

- Wide variety of methods with the risk of inconsistencies in reporting requirements (especially when addressing aspects at different levels as product/plant/corporate).
- Risk of burden shifting of environmental impacts (or misleading claims) when the reporting is related only to some aspects
- Difficulties to share high quality data along the supply chains (including availability to share confidential information)

# Thank you



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