

An aerial photograph of a dense, vibrant green forest. A clear, blue river winds through the center of the forest, forming a meandering path. The sunlight filters through the trees, creating a dappled light effect on the canopy. The overall scene is peaceful and natural.

Impatto ambientale degli imballaggi: appello degli esperti di LCA ai Membri del Parlamento Europeo

Giacimenti Urbani – Festival Diffuso

17/11/2023

Dr. Dario Cottafava – University of Turin - Dario.cottafava@unito.it

Oltre gli Slogan



VS



Quante volte riutilizzate una borsa di cotone?

La necessità di criteri minimi per le valutazioni d'impatto ambientale



Una borsa di cotone «eco-friendly» dovrebbe essere utilizzata centinaia/migliaia di volte (a seconda dell'aspetto considerato) prima di poter essere classificata come migliore dal punto di vista ambientale rispetto a una borsa monouso.

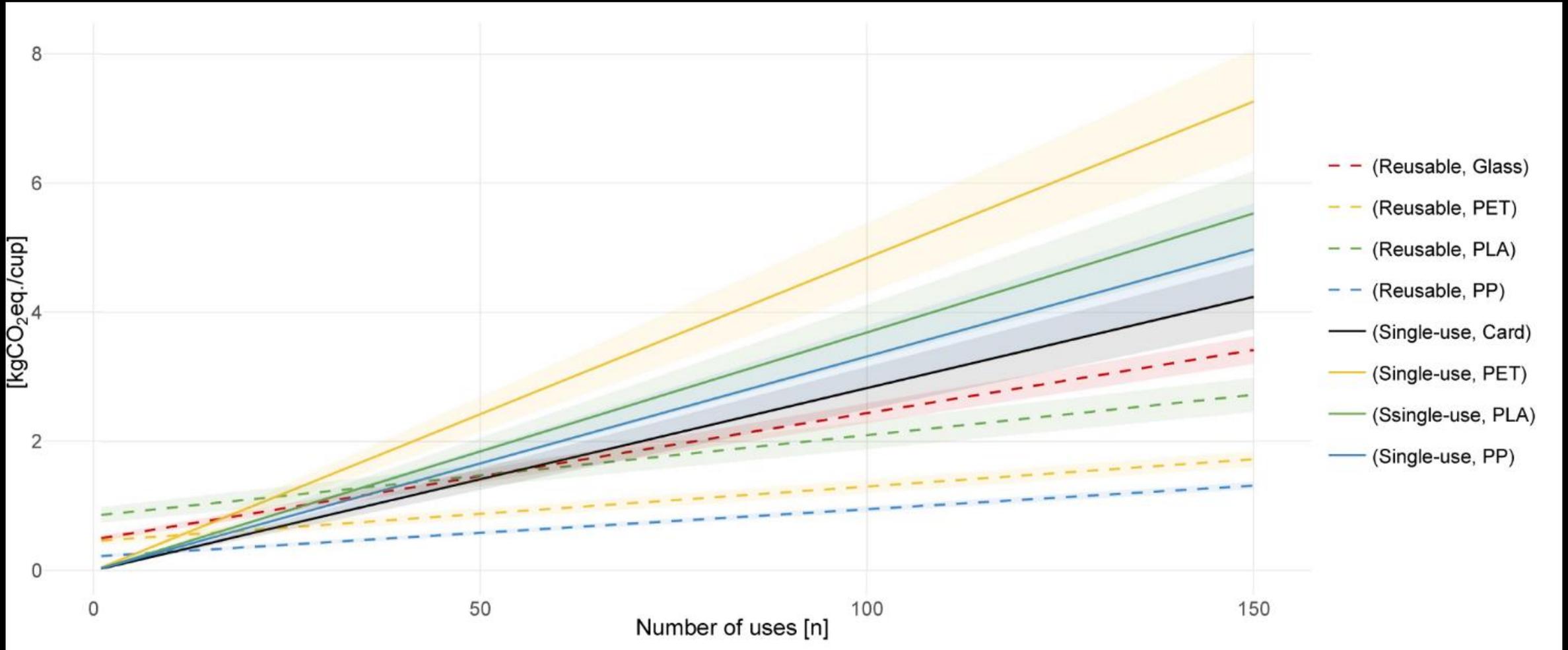
La necessità di criteri minimi per le valutazioni d'impatto ambientale



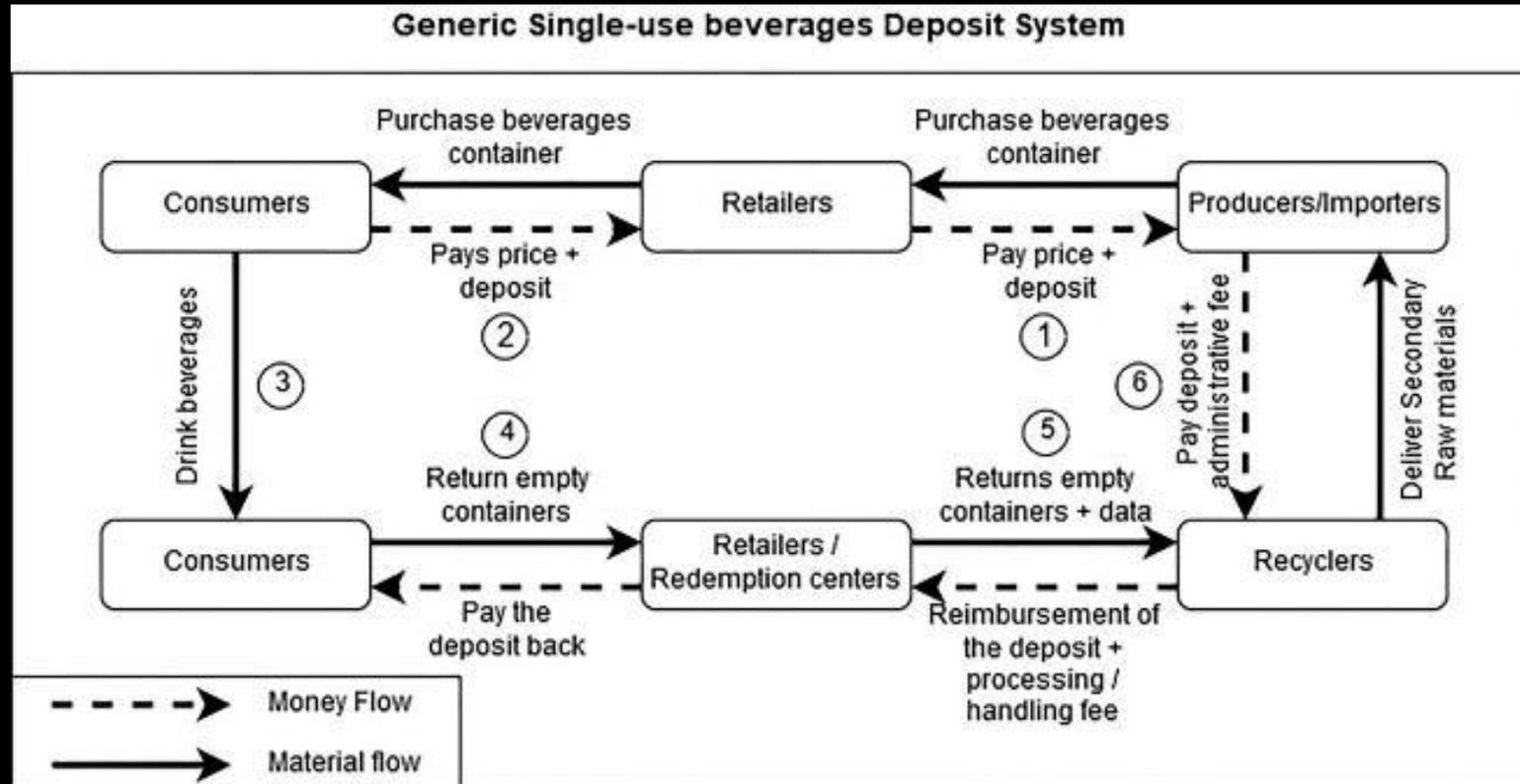
VS



Emissione di CO₂ per numero di (ri)utilizzi

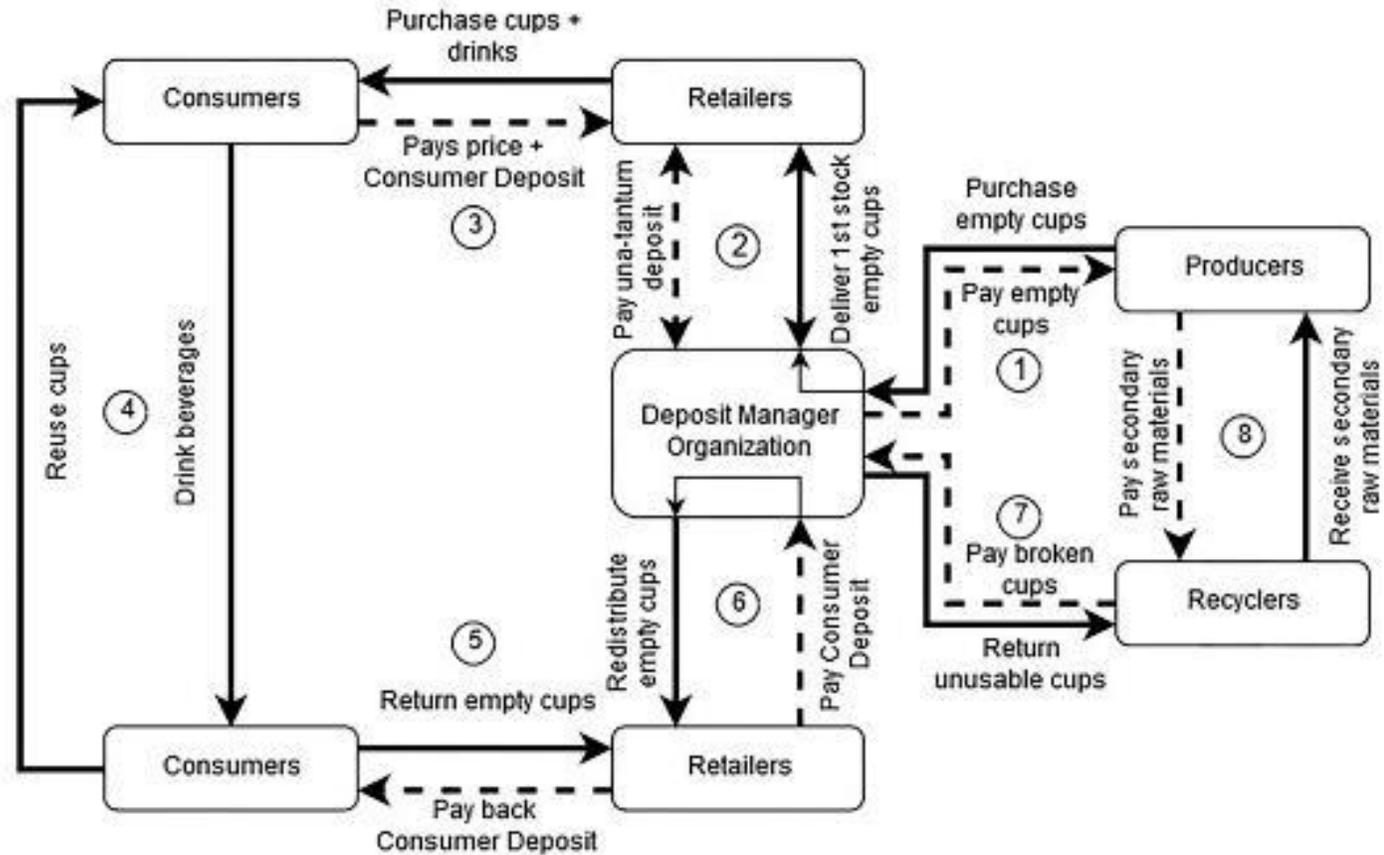


Deposit Return System (DRS) per gli imballaggi monouso e riutilizzabili

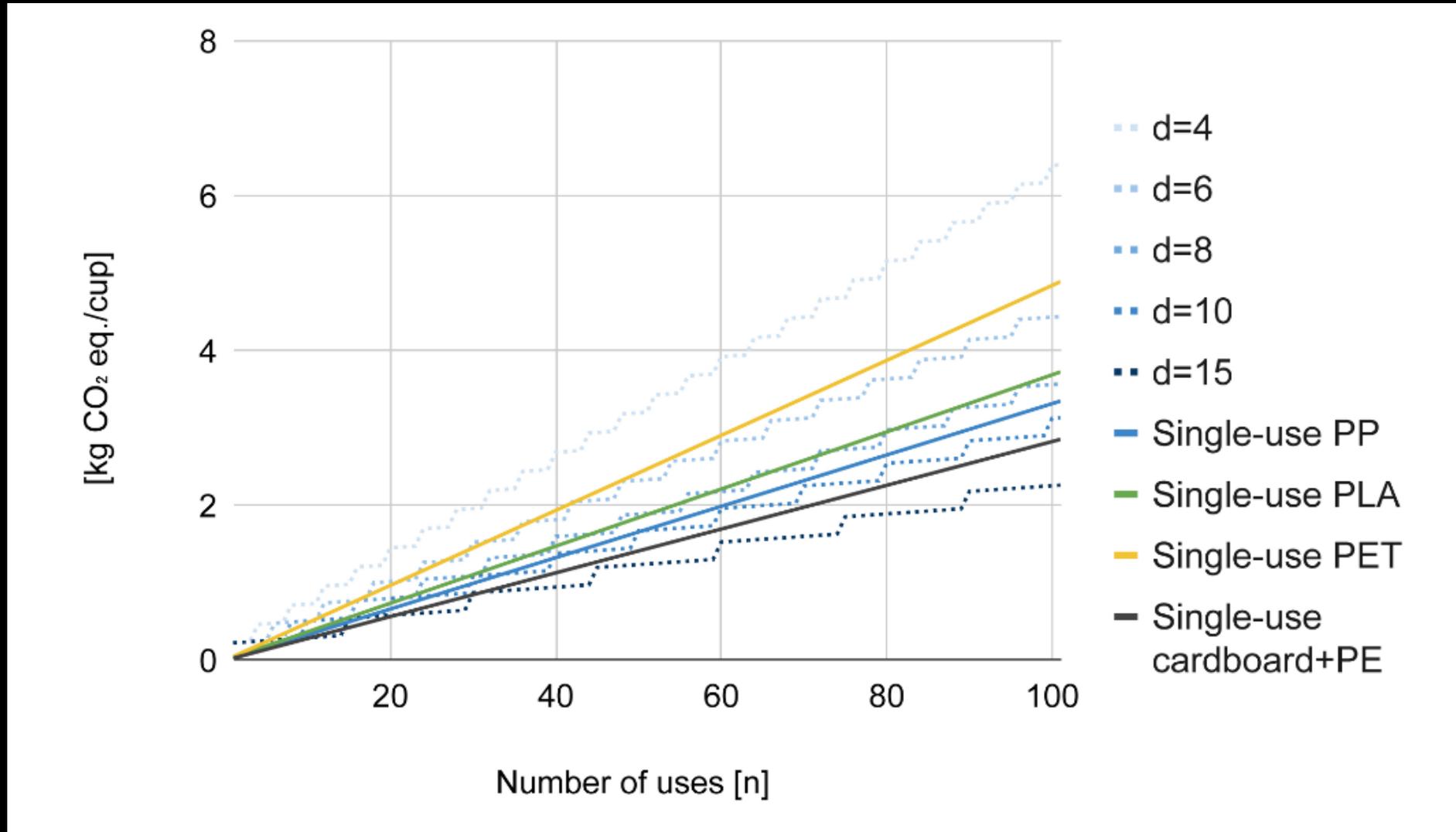


Deposit Return System (DRS) per gli imballaggi monouso e riutilizzabili

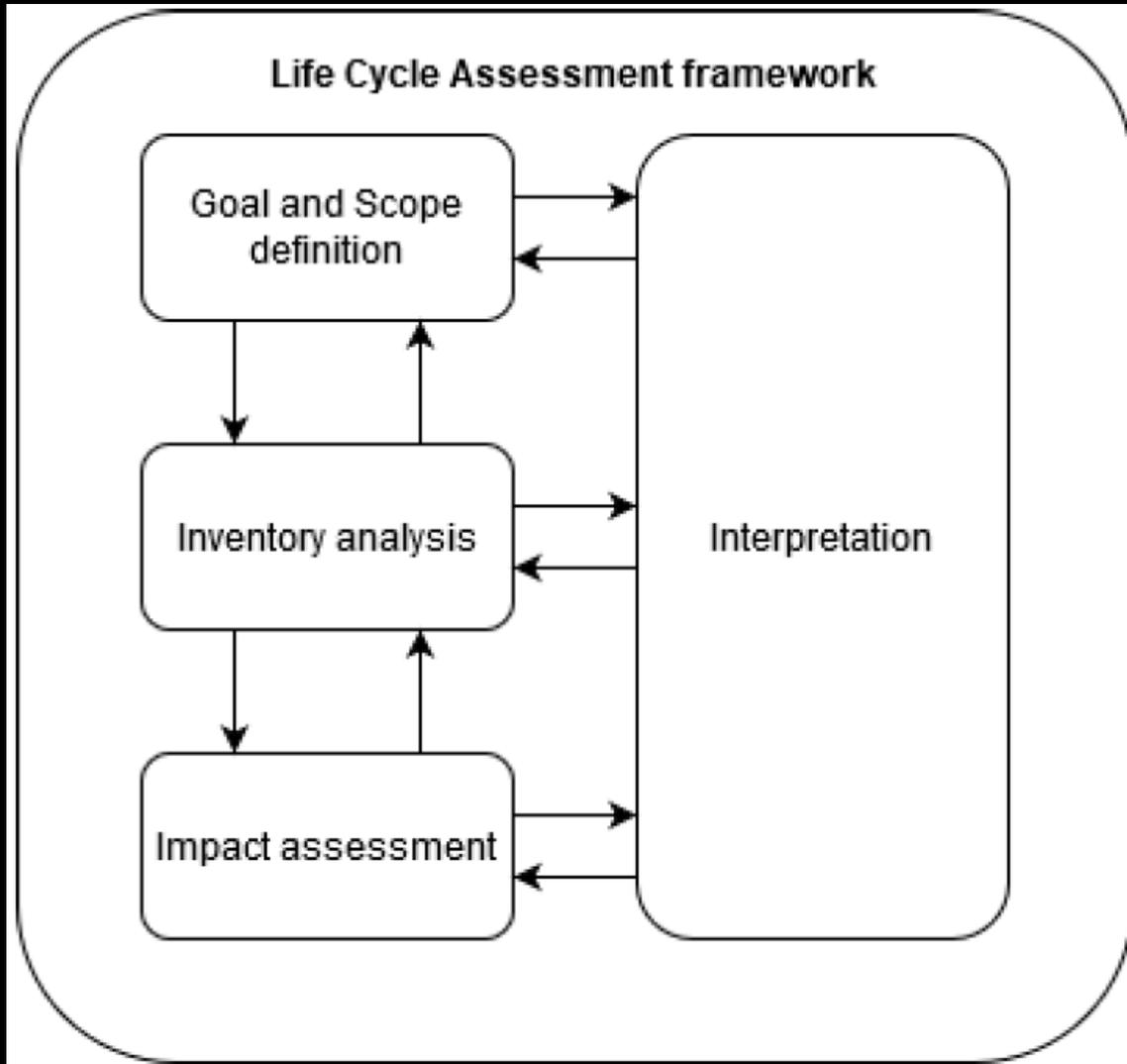
Reusable beverage containers Deposit System



Dispersion Rate

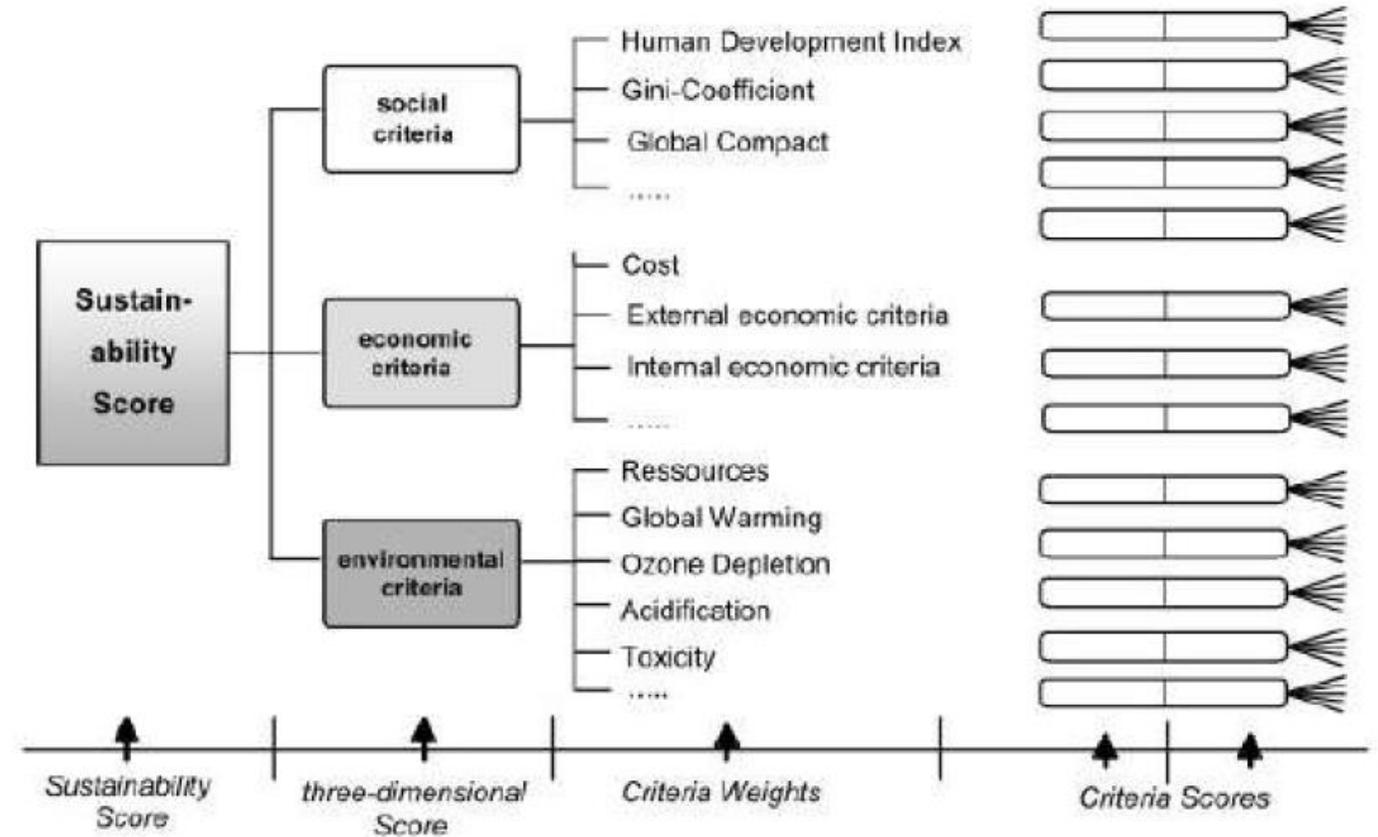
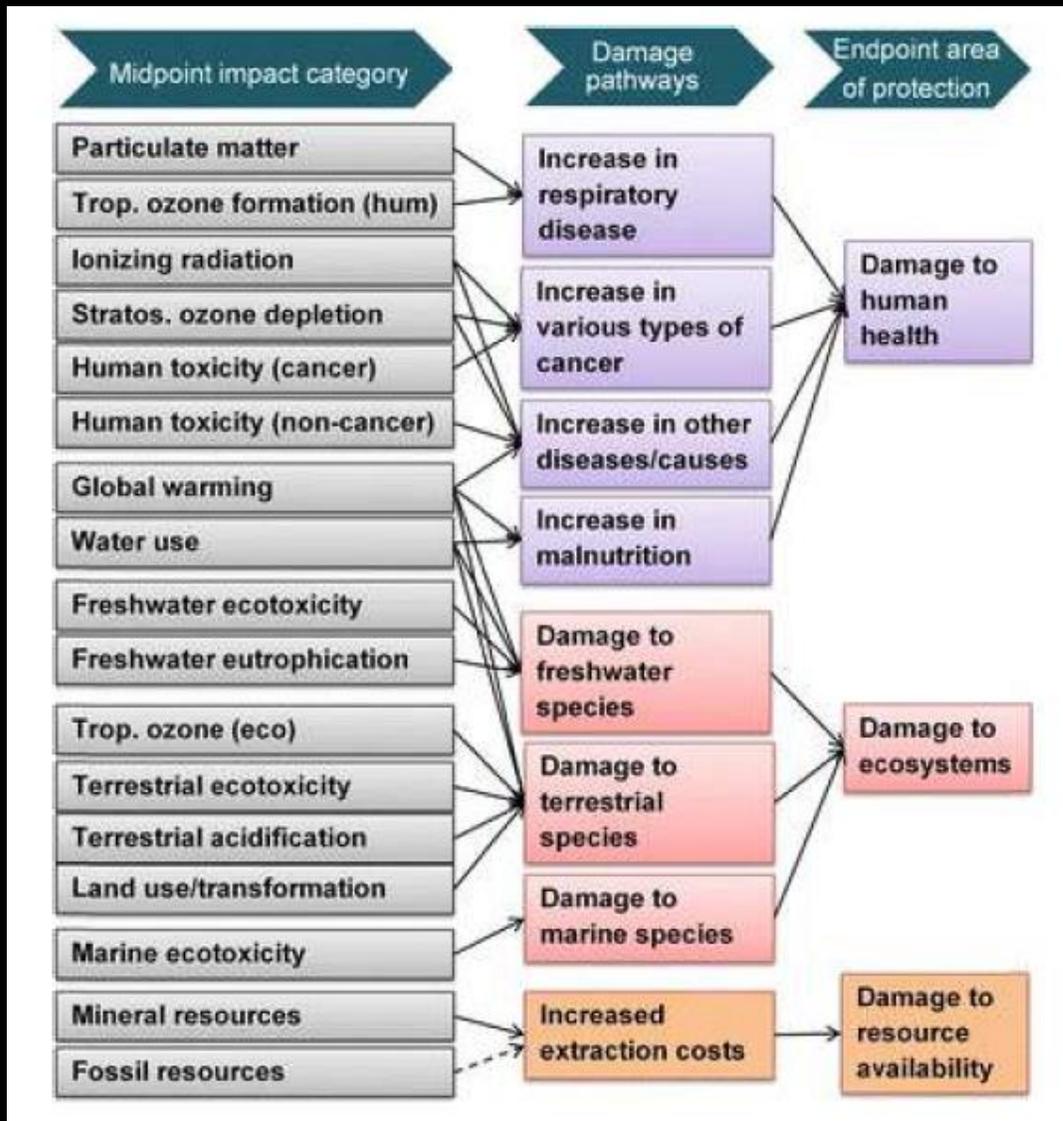


Life Cycle Assessment: nozioni basilari



- 1. GOAL and SCOPE:** rationale e il motivo dello studio in modo inequivocabile
- 2. INVENTORY:** raccolta e quantificazione di tutti i dati di input/output di un prodotto durante il suo ciclo di vita.
- 3. IMPACT ASSESSMENT:** valutazione e quantificazione degli impatti ambientali dell'intero ciclo di vita analizzato
- 4. INTERPRETATION:** i risultati sono valutati rispetto all'obiettivo iniziale e all'ambito definito per evidenziare raccomandazioni e conclusioni significative

Life Cycle Assessment: Impact Assessment



The Packaging and Packaging Waste Regulation

- 1. Option 1** contains the measures related to the better standardisation and clearer Essential Requirements.
- 2. Option 2** sets mandatory targets for waste reduction, reuse and minimum recycled content in plastic packaging
- 3. Option 3** contains higher mandatory targets and additional product requirements



EUROPEAN
COMMISSION

Brussels, 30.11.2022
SWD(2022) 384 final

PART 1/2

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a Regulation

**of the European Parliament and the Council on packaging and packaging waste,
amending Regulation (EU) 2019/1020, and repealing Directive 94/62/EC**

Option 2 Option 3

Sector	Packaging type - Business model	Packaging groups and products	Target for 2030 [2040] Measure 8b	Target for 2030 [2040] Measure 8c
Food and beverage- HoReCa	Primary - B2C	Beverage (cold and hot) filled into a container at the point of sale for take-away, to be sold in packaging within a system for re-use or refill.	20% [80%]	30% [95%]
	Primary-B2C	Food for take-away, to be sold in packaging within a system for re-use or refill	10% [40%]	20% [75%]
Food and beverage- Retail	Primary-B2C	Alcoholic beverages other than wine and spirits, and products based on wine, spirits or other fermented beverages mixed with non-alcoholic beverages, to be sold in packaging within a system for re-use or refill.	10% [25%]	20% [75%]
	Primary B2C	Wine, sparkling wine, spirits and other spirituous beverages, to be sold in packaging within a system for re-use or refill.	5% [15%]	10% [30%]
	Primary-B2C	Non-alcoholic beverages, such as water, soft drinks, juices, to be sold in packaging within a system for re-use or refill.	10% [25%]	20% [75%]
	Tertiary-B2B	Large household appliances e.g., washing machines or fridges, to be sold in reusable packaging	90% [90%]	90% [90%]

McDonald and the No Silver Bullet «study»



NO SILVER BULLET

[CONTACT](#)



Packaging is a vital part of delivering food and drink to Europeans in a safe, quick, and convenient way.

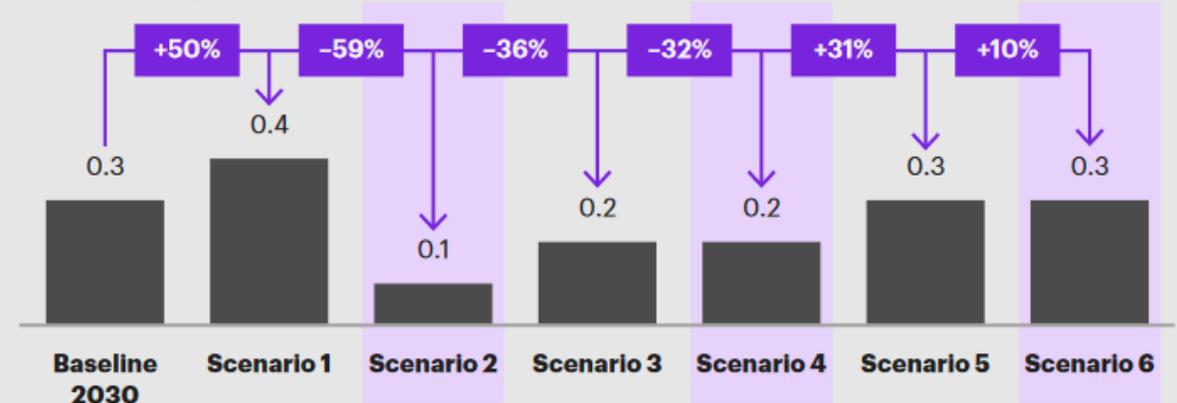
and increase the amount of plastic packaging waste by **up to 300%**



McDonald and the No Silver Bullet «study»

	Scenario 1: All reuse	Scenario 2: Improved recycling	Scenario 3: Reuse cups and improved recycling	Scenario 4: Reuse cups, compost napkins/wraps, improved recycling	Scenario 5: Reuse cups and compost rest	Scenario 6: All compost
Cups 	Reused	Recycled	Reused	Reused	Reused	Compostable
Plastic bottles 	Reused	Recycled	Recycled	Recycled	Compostable	Compostable
Folding carton 	Reused	Recycled	Recycled	Recycled	Compostable	Compostable
Pizza box 	Reused	Recycled	Recycled	Recycled	Compostable	Compostable
Plastic container 	Reused	Recycled	Recycled	Recycled	C	
Lids 	Reused	Recycled	Recycled	Recycled	C	
Bags 	Recycled'	Recycled	Recycled	Recycled	C	

GHG emissions, IEO sector 2030 (million tons)



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A. **‘Systems for re-use’** should include an **incentive to return the Packaging**

B. **Reuse targets should be more ambitious** and expanded to other key sectors

C. Sector specific reuse targets should be achieved only through ‘systems for reuse’ and ‘refill’ should be counted as part of the waste prevention targets

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EPPA recommends the following aspects:

- 1. Avoid mandatory reuse requirements** for paper-based packaging
- 2. Avoid mandatory recycled content targets** on paper-based packaging

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RETHINK PLASTIC

Establish in September 2016,
2800 organisations



Establish in March 2020
Less than 20 organizations and
6 active persons..



President
Antonio D'Amato
SEDA

Vice President
Fredrik Davidsson
Huhtamaki



Treasurer
David Schisler
CEE Packaging Solutions



Member
Paul Pomroy
McDonalds



Member
Ignazio Capuano
Burgo



Member
Thomas Kratochwill
MM Group

Open Letter to Member of European Parliament

ARTICOLI

MEGLIO IL RIUSO O L'USA E GETTA? QUELLO CHE NON TORNA NEGLI STUDI DELL'INDUSTRIA

UN GRUPPO DI SCIENZIATI ACCUSA L'INDUSTRIA DI AVER PUBBLICATO STUDI SUI RIFIUTI DA IMBALLAGGIO SENZA TRASPARENZA E BASI SOLIDE, CON RISULTATI MANIPOLABILI

di Tosca Ballerini



10 OCT 2023 14:00



Open Letter to Member of European Parliament

1. Be a **peer-reviewed independent** study
2. Respect steps laid out in **ISO standards** (ISO 14040 and 14044) with clear scope and comprehensive inventory data.
3. Assess the **highest number of indicators**.
4. Include the **full life-cycle** from **cradle to grave**.
5. Include **clear assumptions** on breakage rate, return rate, weight, use phase and end of life
6. Perform a **sensitivity analysis** and discloses the source of such data.
7. Consider **different business model configurations** for the use and end of life phases
8. Integrate static comparisons with dynamic ones such as the evaluation of the **environmental break-even points**.

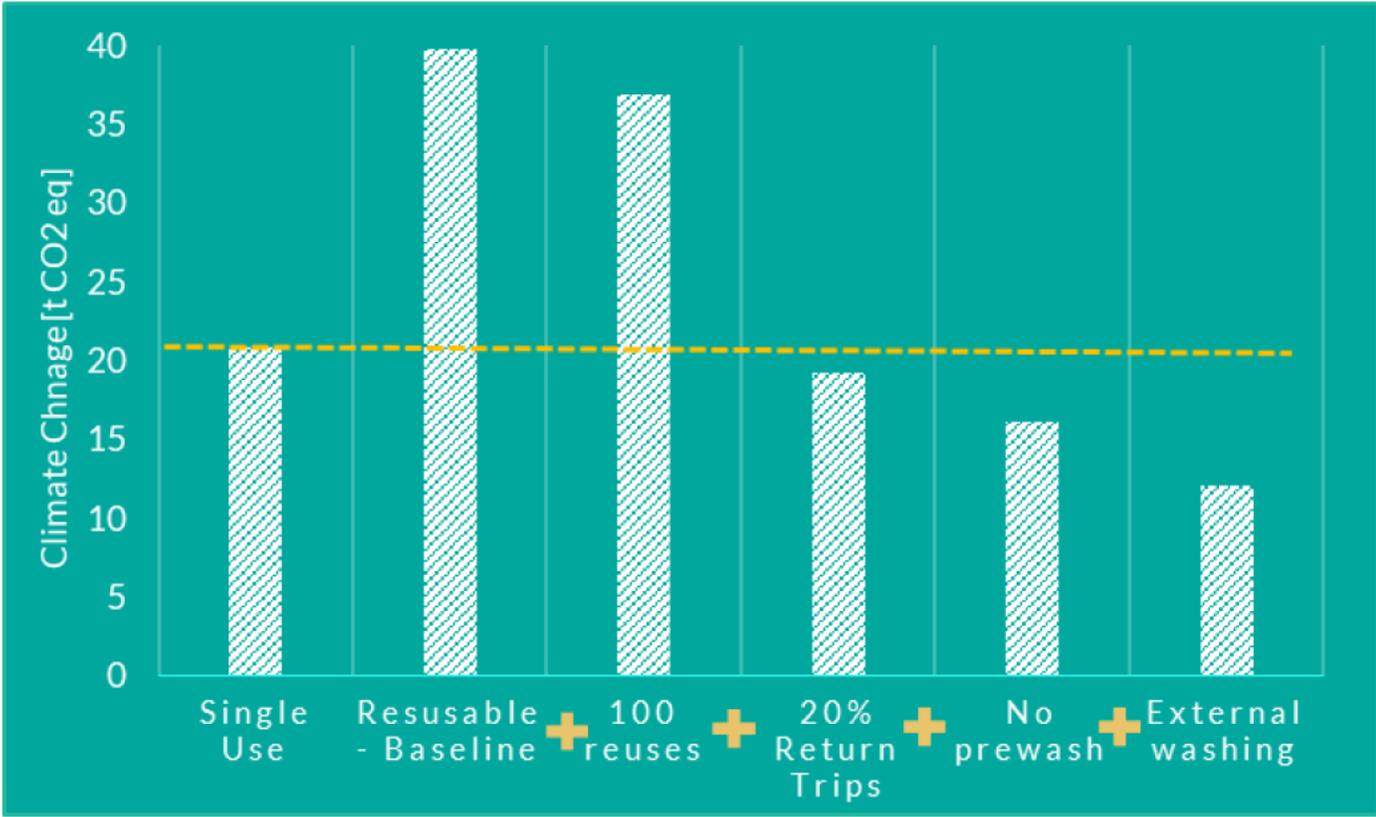
Name of the study	<i>McDonald's study (Kearney) [1]</i>	<i>EPPA's study (Ramboll, in-store) [2]</i>	<i>EPPA's study (Ramboll, take-away) [3]</i>
LCA experts' criteria			
Follows ISO LCA frameworks			
Peer-review (i.e. reviewed by third parties)			
Independent (without conflicts of interest)			
Clear goal and scope definition			
Transparency of inventory data			
Inclusion of sufficient and relevant environmental indicators			
Inclusion of full life-cycle			
Clear assumptions on breakage rate, return rate, weight and end-of-life			
Sensitivity analysis on key parameters and assumptions			
Scenario analysis on model configurations for use & end-of-life			
Integration of static comparisons with dynamic ones (break-even points)			

Legend	 Criteria not fulfilled	 Criteria partially fulfilled	 Criteria fulfilled
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Unveiling the Complexities: Exploring LCAs of Reusable Packaging in the Take-Away Sector

Why do they disagree and how can we determine their credibility?

July 2023





**Grazie per
l'attenzione**

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