

Environmental Footprint initiative (PEF/OEF)

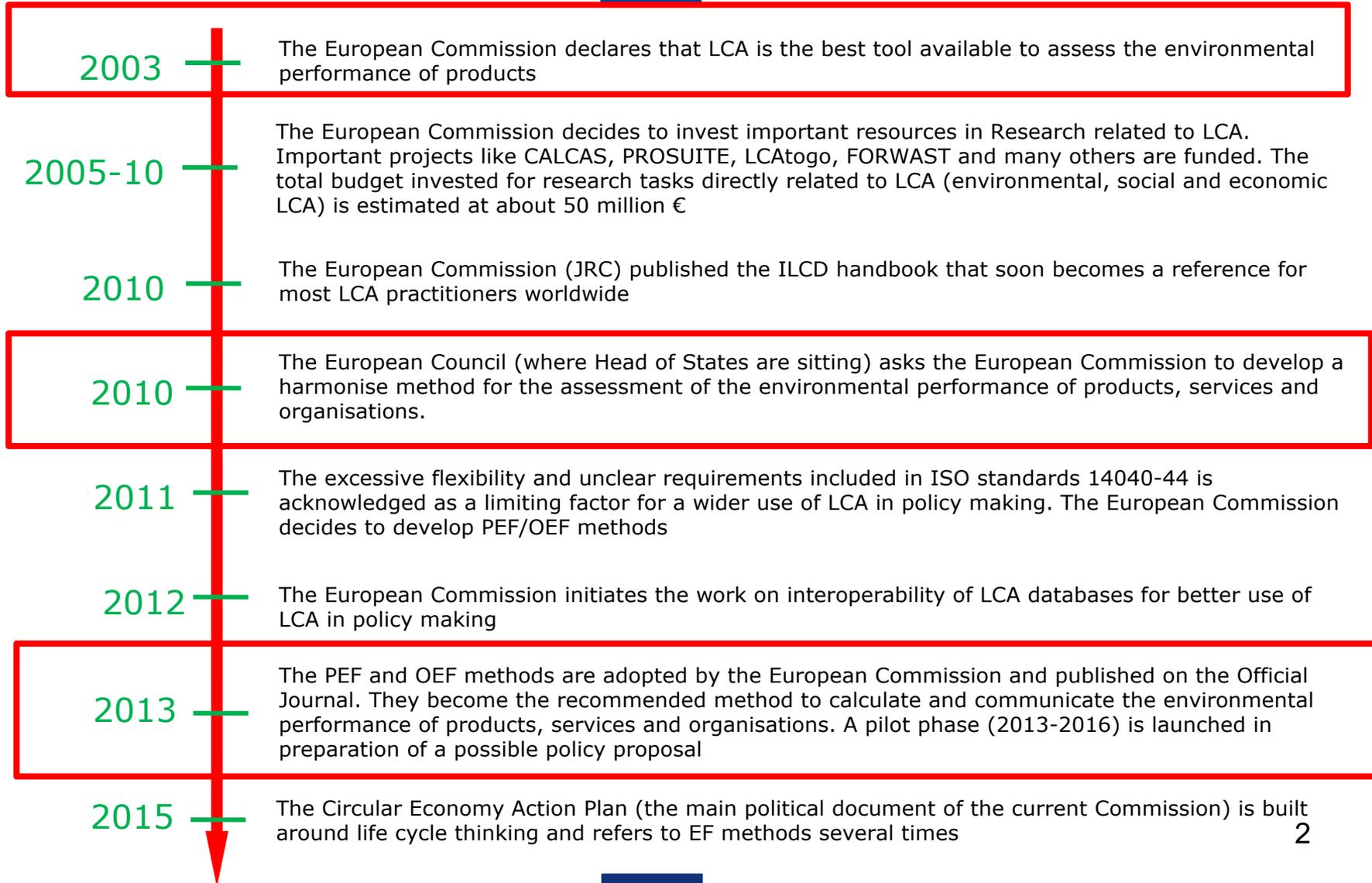
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Where do we come from?



Main limitations existing in 2011



- Too many competing LCA-based standards, none of them could be really used in EU policy making due methodological requirements that were too flexible, weak or even missing.
- Proliferation of PCRs, sometime with conflicting requirements and weak development processes
- The concepts of benchmark and classes of performance are not sufficiently addressed by the LCA community
- Lack of consistent approaches on horizontal issues (packaging, end of life, agricultural processes, ...)
- Lack of reliable secondary LCI data
- Lack of interoperable LCA databases
- Lack of clear guidance on what and how to communicate in B2B and B2C settings

EF pilot phase



1st wave of pilots

-  Batteries and accumulators
-  Decorative paints
-  Hot & cold water pipe systems
-  Liquid household detergents
-  IT equipment
-  Metal sheets
-  Non-leather shoes
-  Photovoltaic electricity generation
-  ~~Stationary~~
-  Intermediate paper products
-  T-shirts
-  Uninterrupted power supplies
-  Retailer sector
-  Copper sector

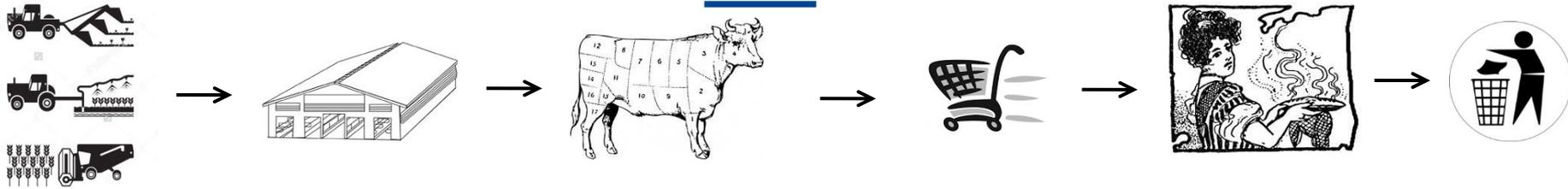
2nd wave of pilots

-  Leather
-  Thermal insulation
-  Beer
-  ~~Coffee~~
-  ~~Fish~~
-  Dairy products
-  Feed
-  Meat
-  Pet food
-  Olive oil
-  Pasta
-  Wine
-  Packed water

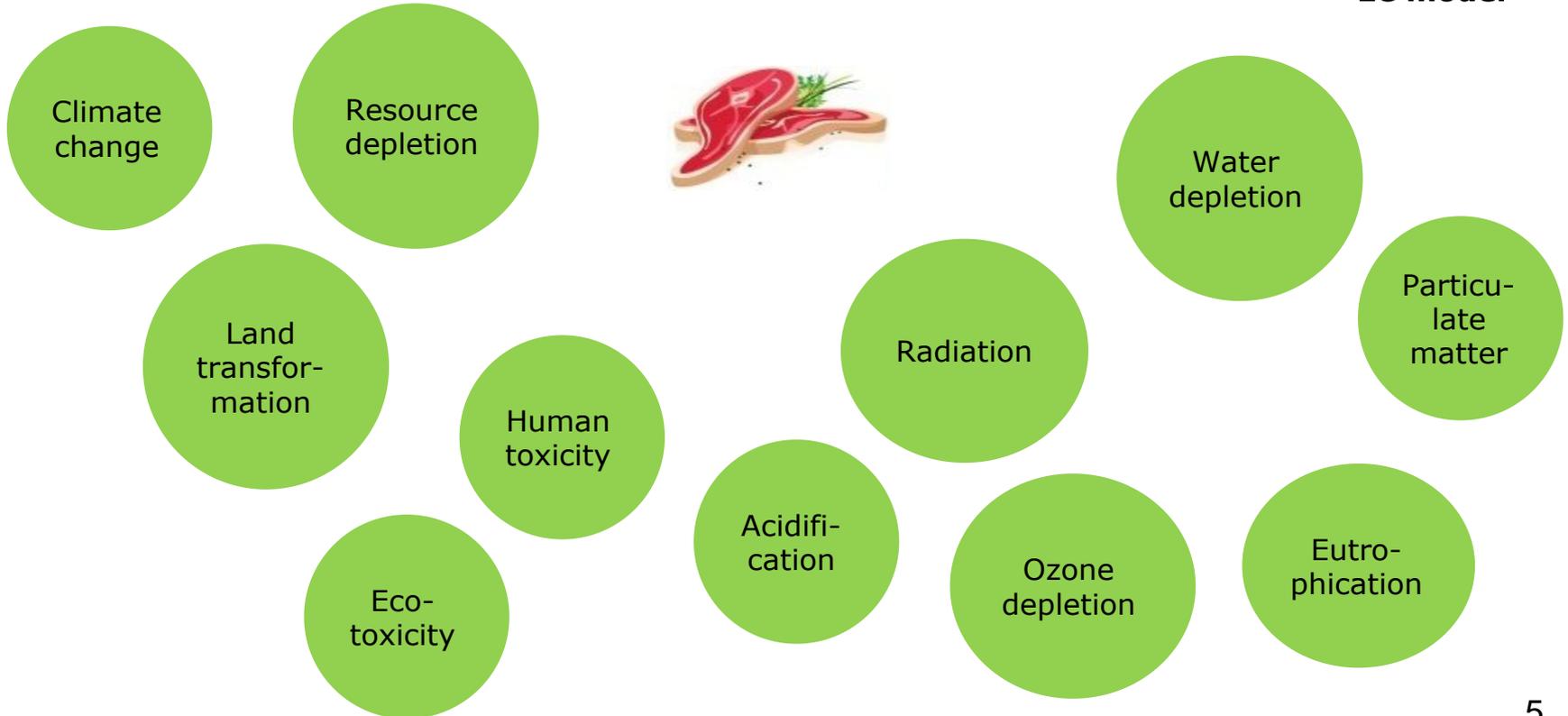
To calculate the environmental footprint: What does that mean?



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LC model

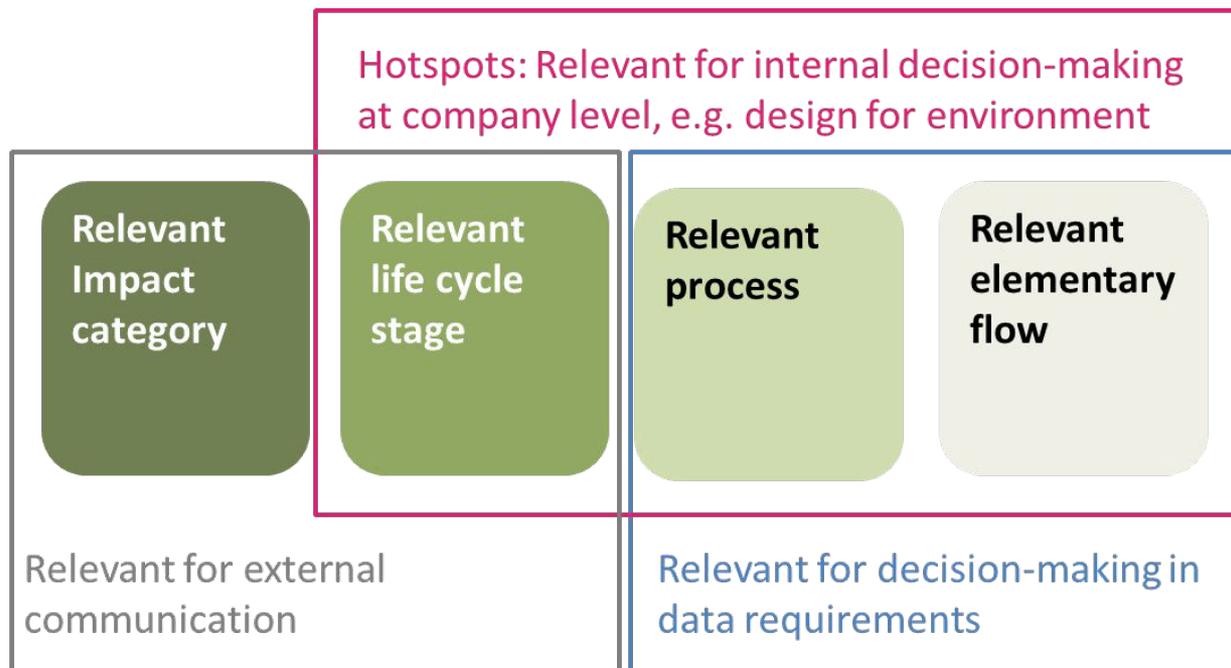


EF in practice



A PEFCR will make available, for each Product Group, the following information:

- The most relevant impact category
- The most relevant life cycle stages
- The most relevant processes
- The most relevant elementary flows
- The environmental profile of the average product sold in EU (benchmark)
- Classes of environmental performance (optional)



Communication based on PEF profile



Supporting study

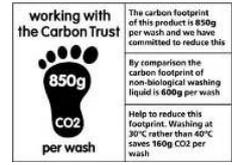
Possible to compare performance

Not possible to compare performance



XYZ Supermarket
 Fantastic!
 Your cart is greener than that of our average green buyer!

PEF A Milk 1€
 PEF A detergent refill 4€
 PEF A T-shirt 10€
 Glass return -5€



	Raw Materials Transport	Manufacturing	Application and Use	Equivalent Units
Climate Change 36	14.2	5.1	16.3	0.09 Grams CO ₂ e
Acidification 18	8.9	1.7	7.2	0.01 Milligrams H ⁺
Eutrophication 16	12.4	1.7	1.4	0.2 Milligrams N
Human Toxicity 10.1	7.4	0.2	2.3	0.2 10 ⁻¹¹ CTUs
Ecotoxicity 9.9	8.3	0.5	1.1	0.01 10 ⁴ CTUs
Photochemical Smog 3.4	1.9	0.8	0.7	0.01 Grams O ₃
Non-renewable Energy 1.6	1.2	0.1	0.3	0.002 MJ primary
Mineral Resource Sand 1.1	1.01	0	0.02	0.1 Micrograms minerals
Iron 24.4	21.4	0	0.2	2.8 Milligrams minerals
Water Resource 0.12	0.02	0	0.02	0.08 Liters water

Smartphone application: PEFit



Functional unit: The pressure supply and transport of hot and cold drinking water, from the entrance of a well-defined apartment building to the tap, by means of a Hot and Cold drinking water piping system installation supplying a house as defined in EN 806 (5 storey apartment building with one apartment (100 m² each) per floor plus cellar), with a design life time of 50 years



Most relevant life cycle stage: Raw materials for pipes - 71.47%
Measuring in: 2015

Geographical validity of the study: Europe
Reference year: 2015
Data valid until: 2018



as defined in EN 806 (5 storey apartment building with one apartment (100 m² each) per floor plus cellar), with a design life time of 50 years

① Tap on an impact category to reveal more information.

Climate change	B
Eutrophication - freshwater	D
Photochemical ozone formation	D
Resource depletion – mineral, fossil and renewable	D

Geographical validity of the study: Europe
Reference year: 2015
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SME tool

- Pilot specific
- Testing: T-shirt, beer, leather, olive oil
- Open source software

Transport between warehouse and shop (T7)

Situation 1: The process is run by your company

Rate of shop selling

%

Shop Selling

Specify the distance for each transportation

Truck

km

Boat

km

Plane

km

Train

km

Situation 1: The process is run by your company

Choose the packaging

Plastic bag (PP) ▼

Quantity

g

Specify the distance for the packaging

Truck

km

Boat

km

Plane

km

Train

km

add another one

Outlook



“Made green in Italy” per l’agroalimentare



Attraverso l’adozione del Collegato Ambientale l’Italia si è assegnata una posizione di primo piano nel contesto europeo e mondiale per le politiche di produzione e consumo sostenibile.

La volontà di inserirsi pienamente nel contesto di lavoro europeo, attraverso il recepimento del metodo PEF così come sarà definite a valle della fase pilota europea, è fortemente apprezzata.

Il giudizio ufficiale sarà espresso a fronte di una notifica del Regolamento Attuativo che ad oggi non risulta ancora essere stata effettuata.

Alcune considerazioni preliminary:

Strumento volontario

Benchmark nazionale vs benchmark europeo

Collegamento con acquisti Verdi (GPP) potrebbe essere più chiaro e strutturato

Qualità vs performance ambientale

Carbon storage è considerato solo se il carbonio biogenico rimane nel prodotto per oltre 300 anni



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<http://ec.europa.eu/environment/eussd/smgp/>

<https://webgate.ec.europa.eu/fpfis/wikis/display/EUENVFP/>

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