



CONSTRUCTION PRODUCTS EUROPE
LET'S BUILD AN EFFICIENT EUROPE

Sustainability Assessment Workshop

4th March 2014

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Introduction to PEF for construction products



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2020 Resource Efficient Europe



*“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')”.*

Product Environmental Footprint

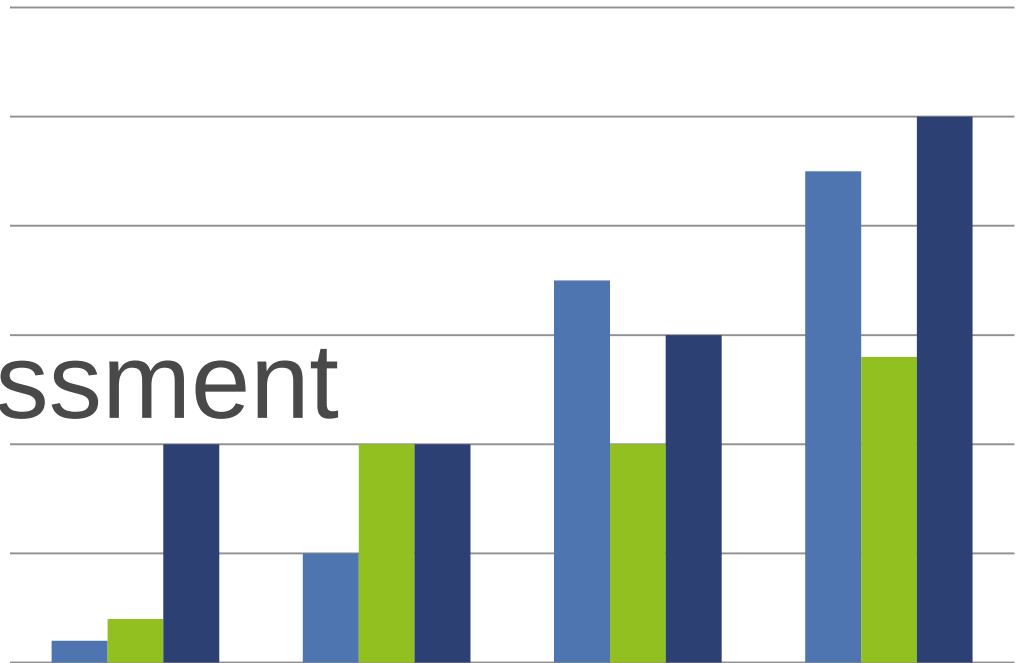
The questions:

- ▼ What is a green product?
- ▼ Is the information reliable?
- ▼ Can we compare and classify products?

The outcome:

- ▼ PEF category rules

Product assessment methodology



What is a green product?



The EC proposes an assessment methodology
based on **Life Cycle Assessment (LCA)**
for **PRODUCTS**



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Life Cycle Assessment

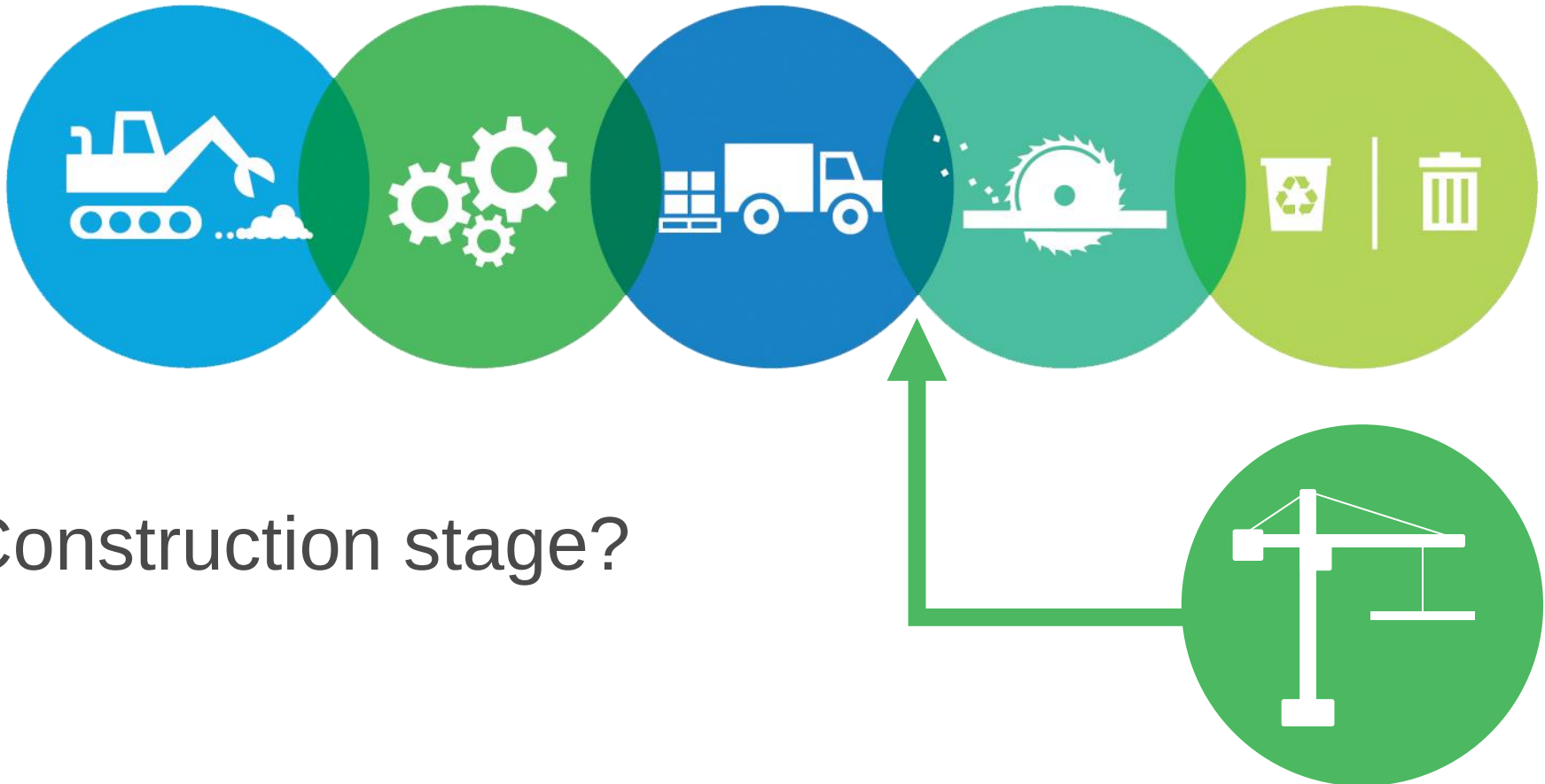
RESOURCE
ACQUISITION

MANUFACTURE

PACKAGING AND
TRANSPORTATION

USE

END-OF-LIFE



Life Cycle Assessment

Unit of analysis and reference flow

Referred to NACE code

▼ What?

Definition of the product

▼ How much?

Reference unit

▼ How well?

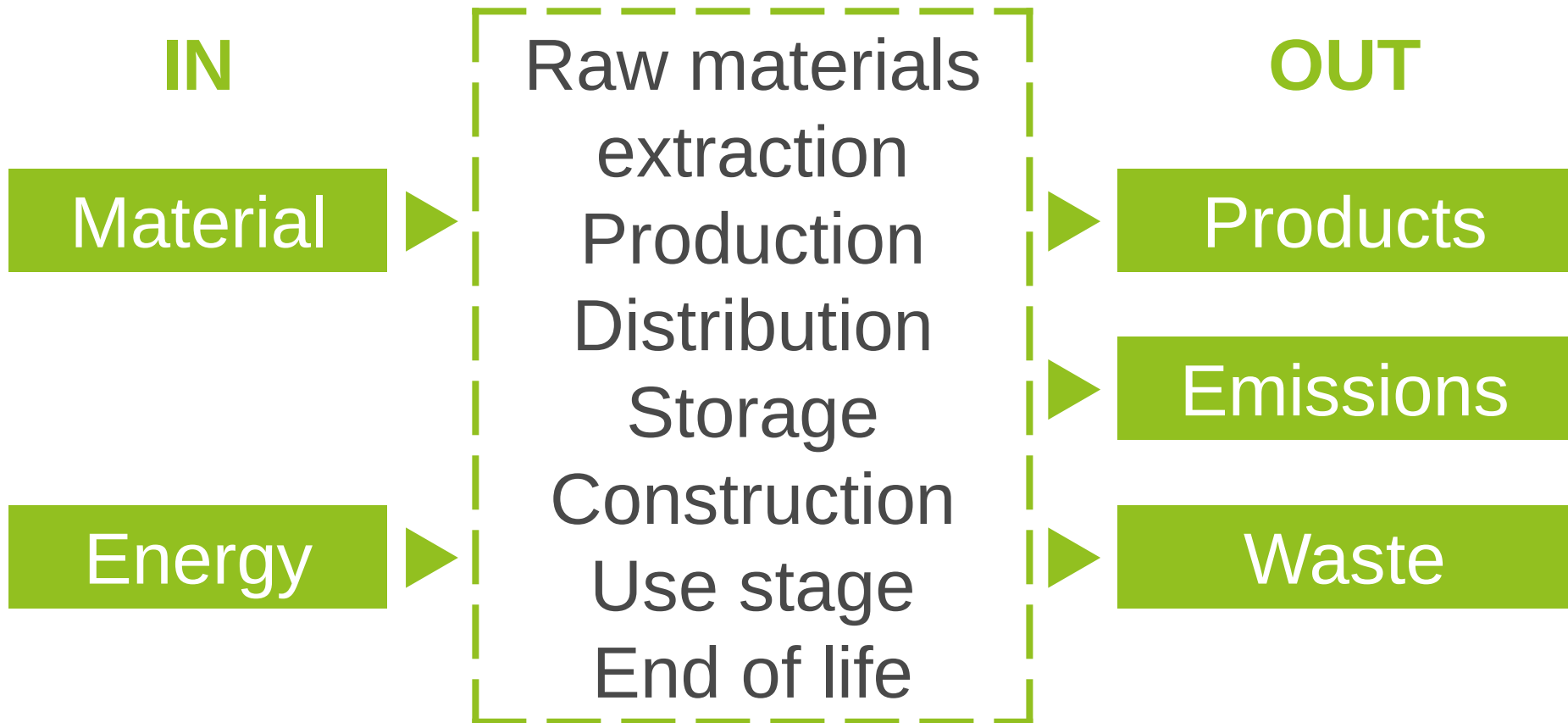
Performance required

▼ How long?

Service life

Life Cycle Assessment

System boundaries



Life Cycle Assessment

Environmental footprint impact categories

Climate change	Photochemical Ozone Formation
Ozone depletion	Acidification
Ecotoxicity for aquatic fresh water	Eutrophication terrestrial
Human Toxicity cancer effects	Eutrophication aquatic
Human Toxicity non-cancer effects	Resource Depletion water
Particulate Matter/Respiratory Inorganics	Resource Depletion mineral, fossil
Ionising Radiation human health effects	Land transformation

Data, final results
and verification



Data collection

- ▼ Specific data
 - Obtained from the manufacturing processes
- ▼ Generic data
 - Developed according to PEF
 - International Reference Life Cycle Data System (ILCD)
 - European Reference Life Cycle Database (ELCD)
- ▼ Data gaps limited 10% each category

- ▼ Classification / Characterisation
 - Calculation of the impact categories
- ▼ Normalisation / Weighting
 - Optional
- ▼ Interpretation / Robustness / Hotspots
- ▼ Uncertainty
- ▼ Conclusions / Recommendations / Limitations

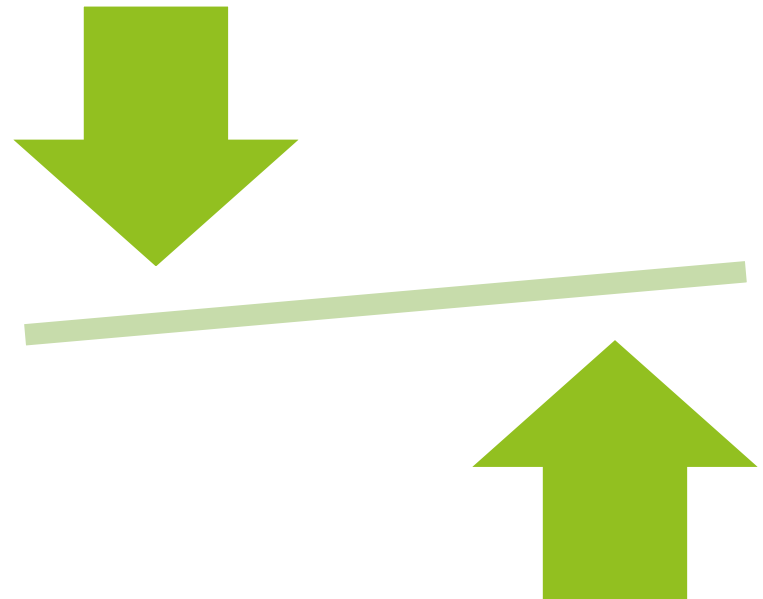
▼ Reporting

- Summary, report and additional information

▼ Review

- Consistency
- Technical value
- Data quality
- Interpretation
- Transparency / accuracy / consistency

Comparison and classification



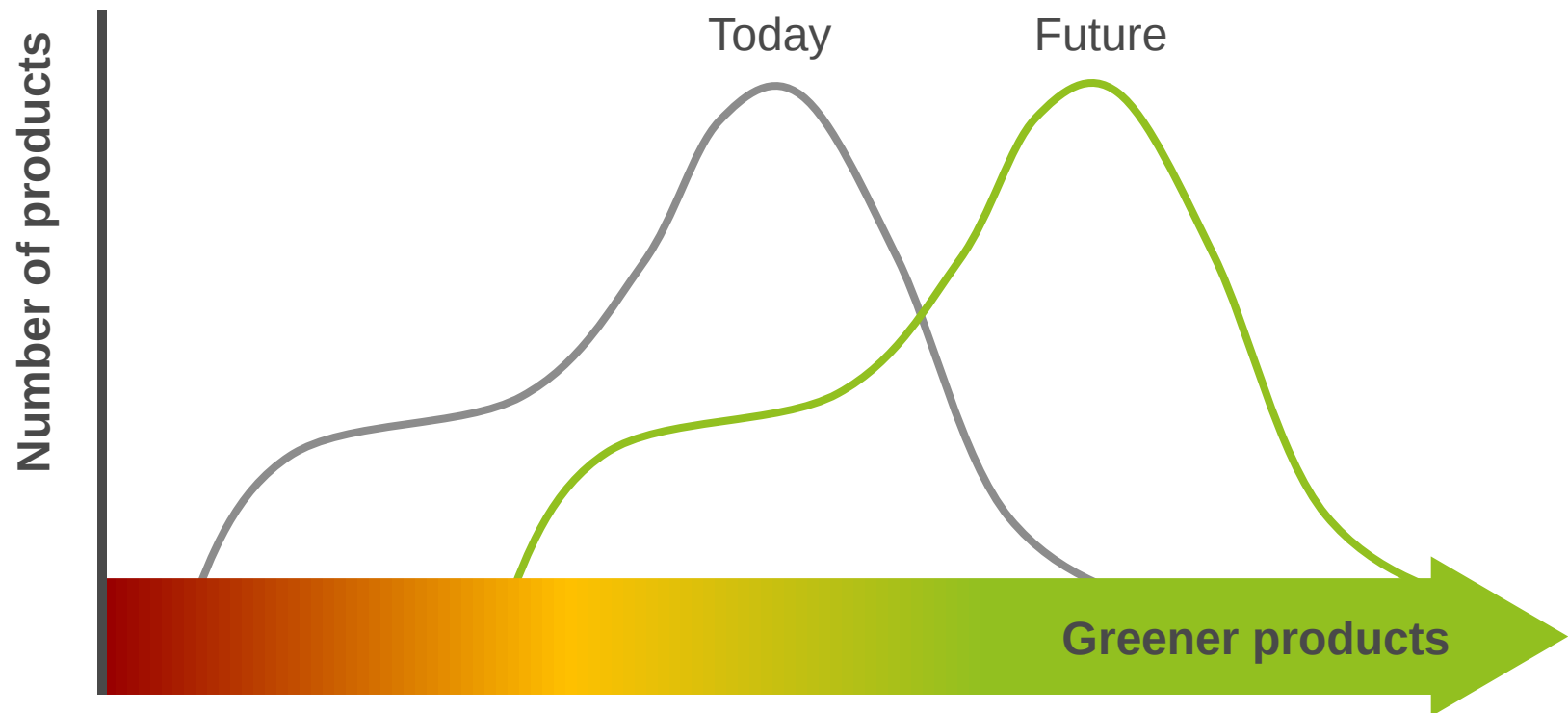
Comparison and classification

The information provided should respond to the following demands:

- ▼ Marketing;
- ▼ Benchmarking;
- ▼ Environmental labelling.
- ▼ Eco-design
- ▼ Green procurement
- ▼ Environmental policies at European or Member State level;

Comparison and classification

- ▼ B2B and B2C communications
- ▼ Background for future policies



PEF pilots
PEFCR development



PEF pilots for construction

- ▼ Batteries and accumulators
- ▼ Decorative paints
- ▼ **Hot and cold water supply pipes**
- ▼ Household detergents
- ▼ Intermediate paper product (JRC)
- ▼ IT equipment
- ▼ Leather (pilot kicks off in June 2014)
- ▼ **Metal sheets**
- ▼ Non-leather shoes
- ▼ Photovoltaic electricity generation
- ▼ Stationery
- ▼ **Thermal insulation (pilot kicks off in June 2014)**
- ▼ T-shirts
- ▼ Uninterruptible Power Supply

PEFCR development

Definition of PEF product category



Definition of the product “model”
based on representative product



PEF Screening



Draft PEFCR



PEFCR supporting study



Confirmation of benchmark(s) and
determination of performance
classes



Final PEFCR

Most relevant environmental impacts
Most relevant life cycle stages
Most relevant processes
Indication of Benchmark

PEFCR implementability
Most relevant environmental impacts
Most relevant life cycle stages
Most relevant processes
Data requirements
Verification requirements

Benchmark defined
Classes of performance identified
(if relevant and appropriate)