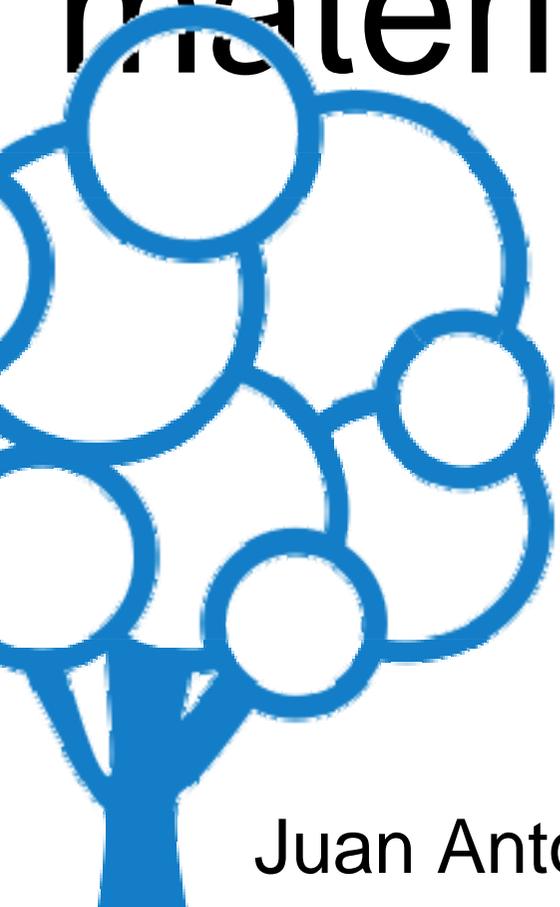




greso Nacional del Medio Ambiente (Conama 2012)
id del 26 al 30 de noviembre de 2012

La huella de carbono en materiales de construcción

*Ecoinnovar en tiempos
revueltos*



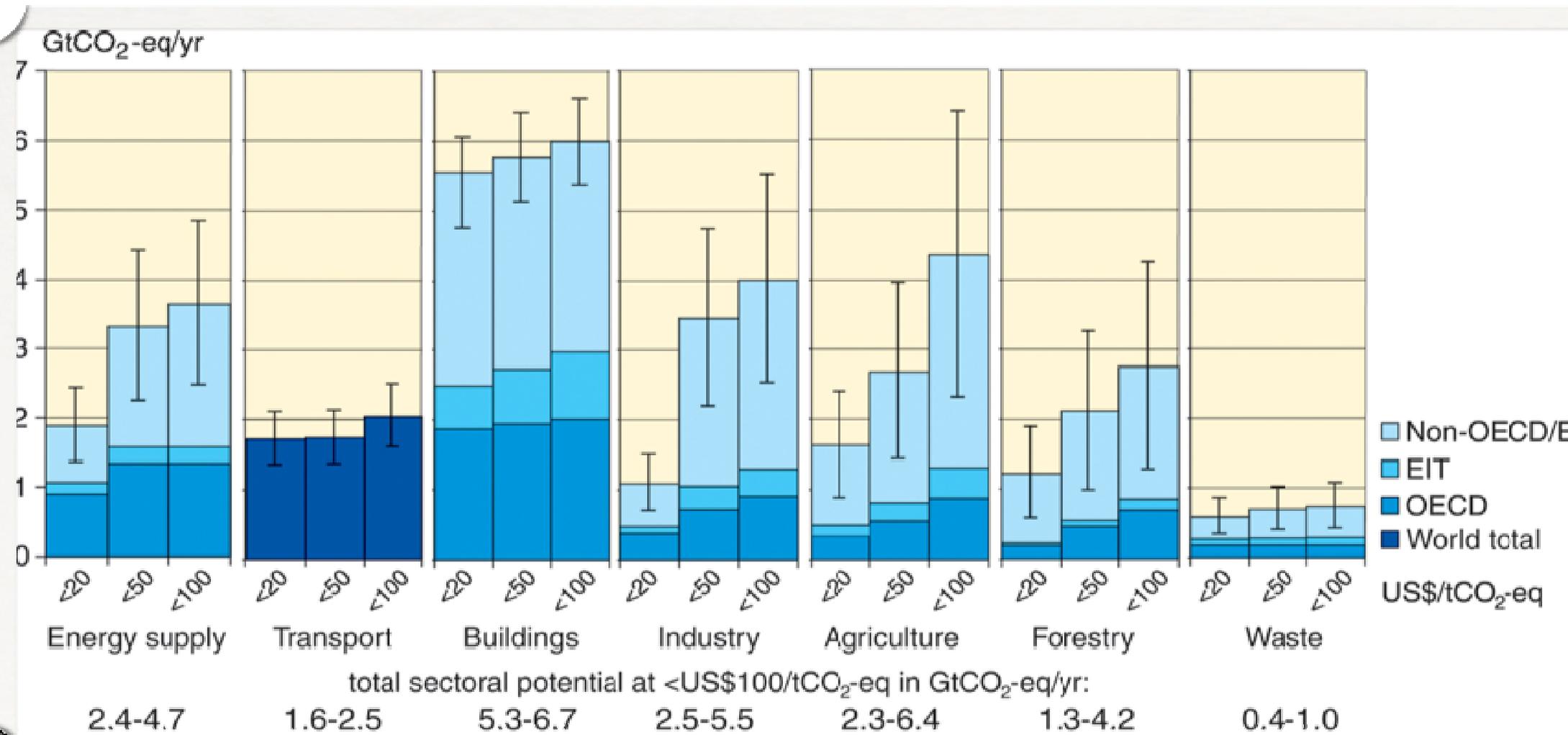
Juan Antonio Polo Palomino





- El **42%** del consumo energético europeo y,
- el **35%** de las emisiones de CO₂ realizadas en Europa proceden de la edificación.







- producción/procesos
- legislación sobre las instalaciones industriales
- Prevención ambiental

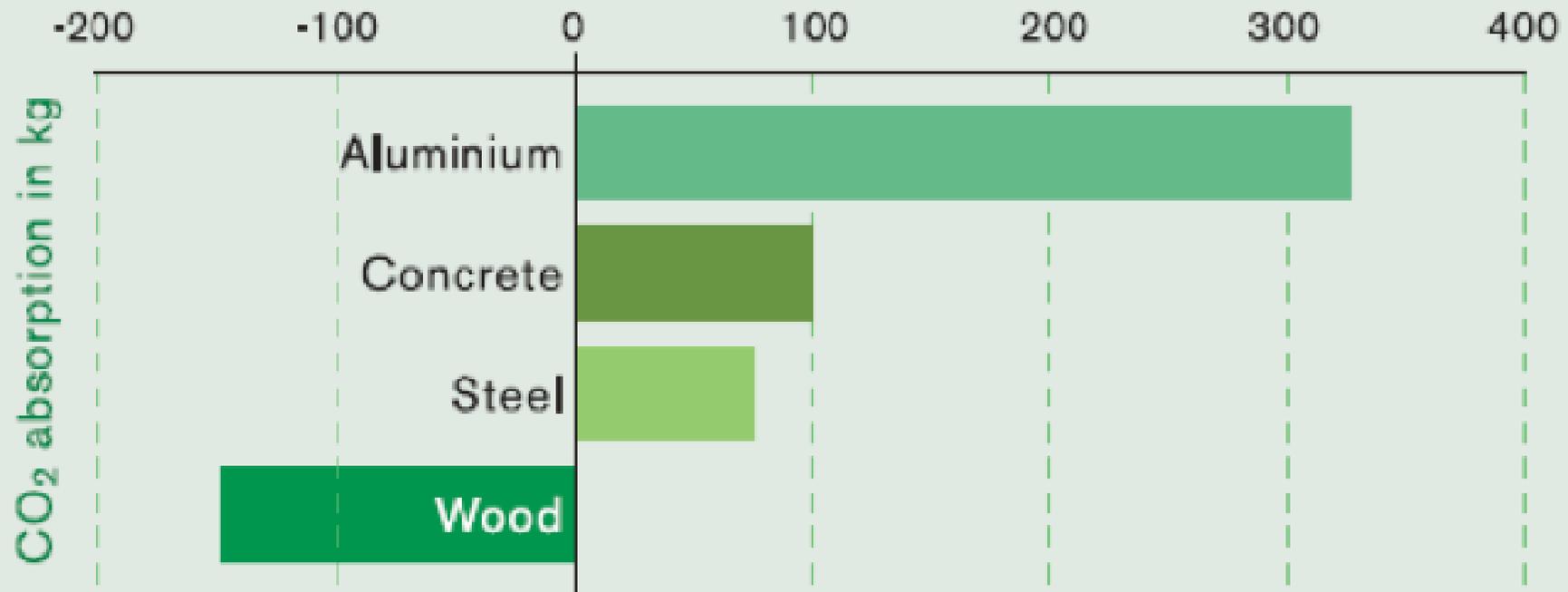
The objective of environmental reporting is to provide the reader with a fair picture of the environmental footprint of the reporting entity



World Business Council for Sustainable Development
Cement Sustainability Initiative

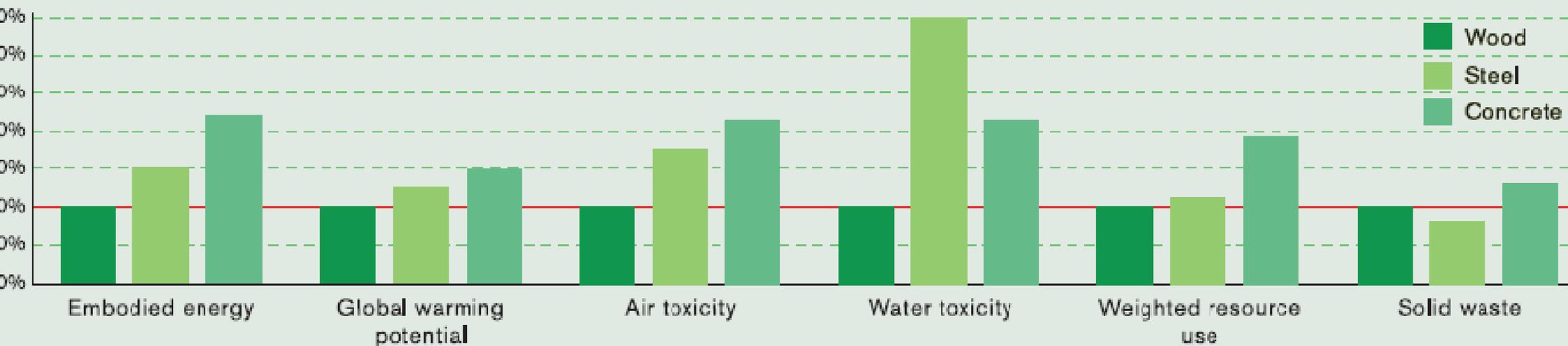
- KPI CO₂ Emissions per tonne of cementitious
- KPI 1: Overall Coverage Rate.
- KPI 2: Coverage Rate Continuous Measurement
- KPI 3a: Emissions Data Dust
- KPI 3b: Emissions Data NO_x
- KPI 3c: Emissions Data SO_x T

Comparison of CO₂ emissions of beams made of different materials



Indufor, CEI Bois Roadmap 2010, 2004

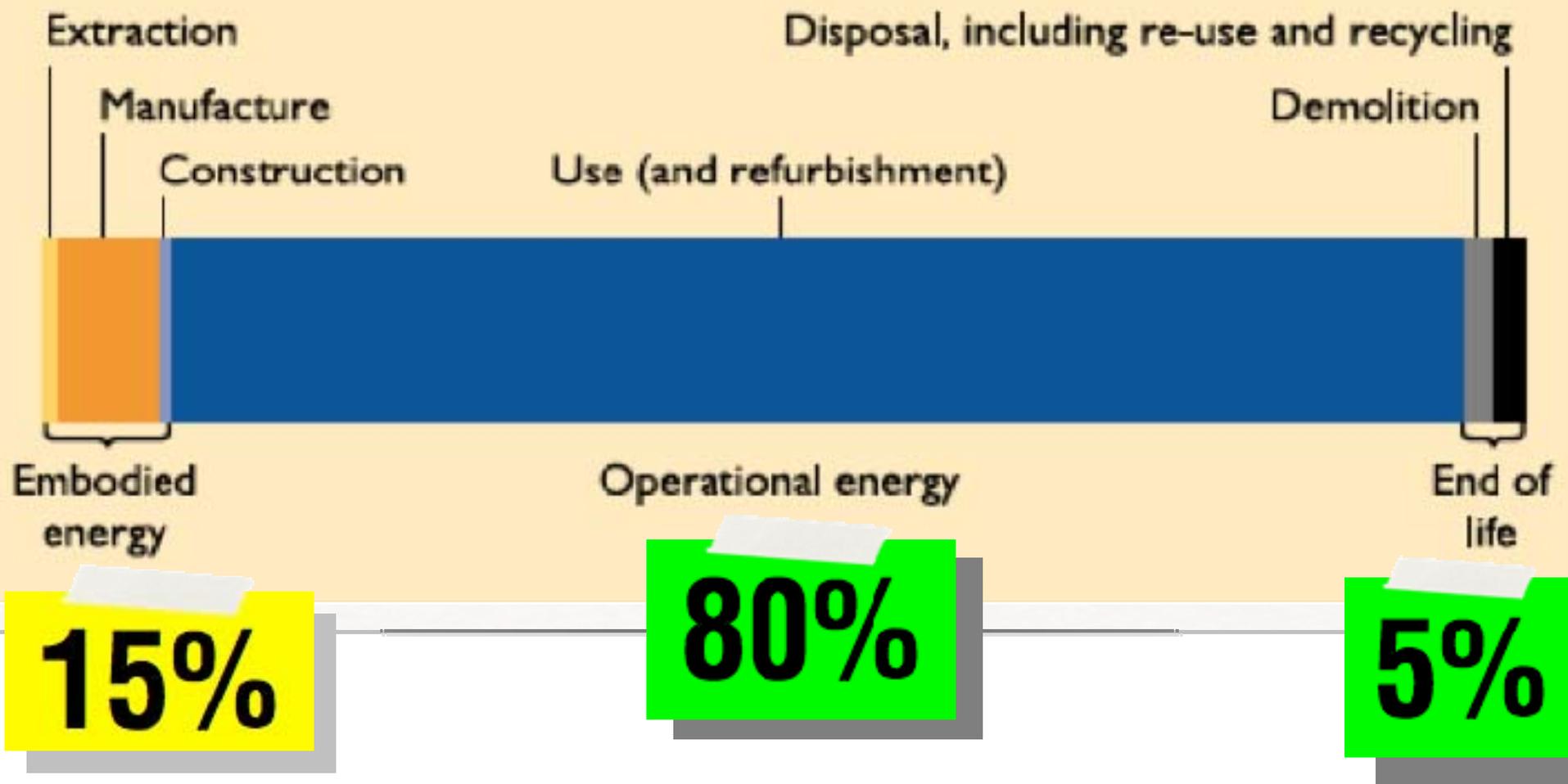
Environmental impact relative to a typical wood frame home



ATHENA Sustainable Materials Institute, Residential Case Study, 1999



Energy Lifecycle for an Office Building Over 60 Years

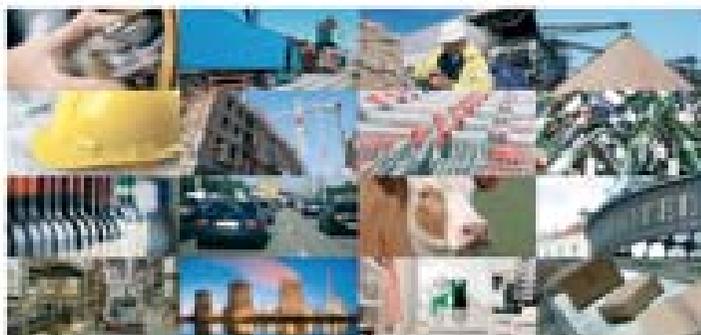


Product Life Cycle Accounting and Reporting Standard



PA 5 2050:2011

Specification for the assessment of the life cycle greenhouse gas emissions of goods and services



| | |
|--------------------------------|---|
| COMMITTEE DRAFT ISO/CD 14067-1 | |
| Date March 9, 2010 | Reference number ISO/TC 2-7/ SC 7 N 089 |
| Supersedes document | |

WARNING: This document is not an International Standard. It is distributed for review and comment. It is subject to change without notice and may not be referred to as an International Standard.

ISO/TC 207/ SC 7

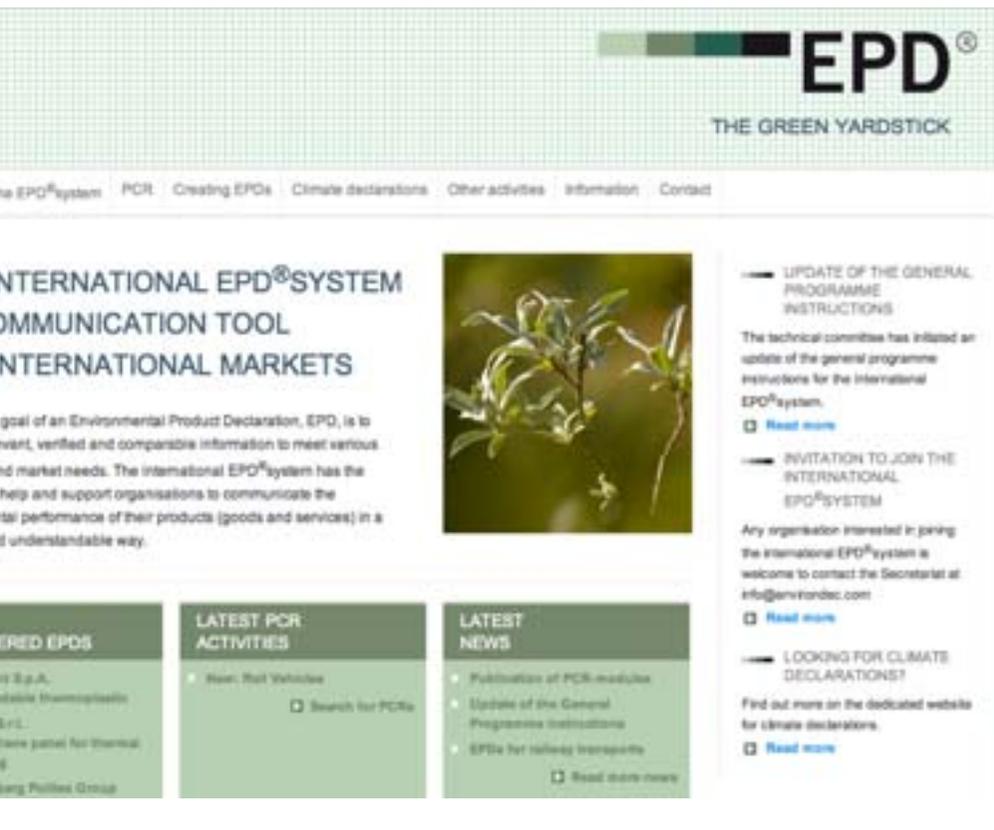
Title

Carbon footprint of products – Part 1: Quantification

Circulated to P- and O-members, and to technical committees and organizations in liaison for:

- discussion at _____ on _____
(venue/date of meeting)
- comments by **June 9, 2010**
(date)
- approval for registration as a DIS in accordance with 2.5.6 of part 1 of the ISO/IEC Directives, by _____
(date)

(P-members vote only; ballot form attached)

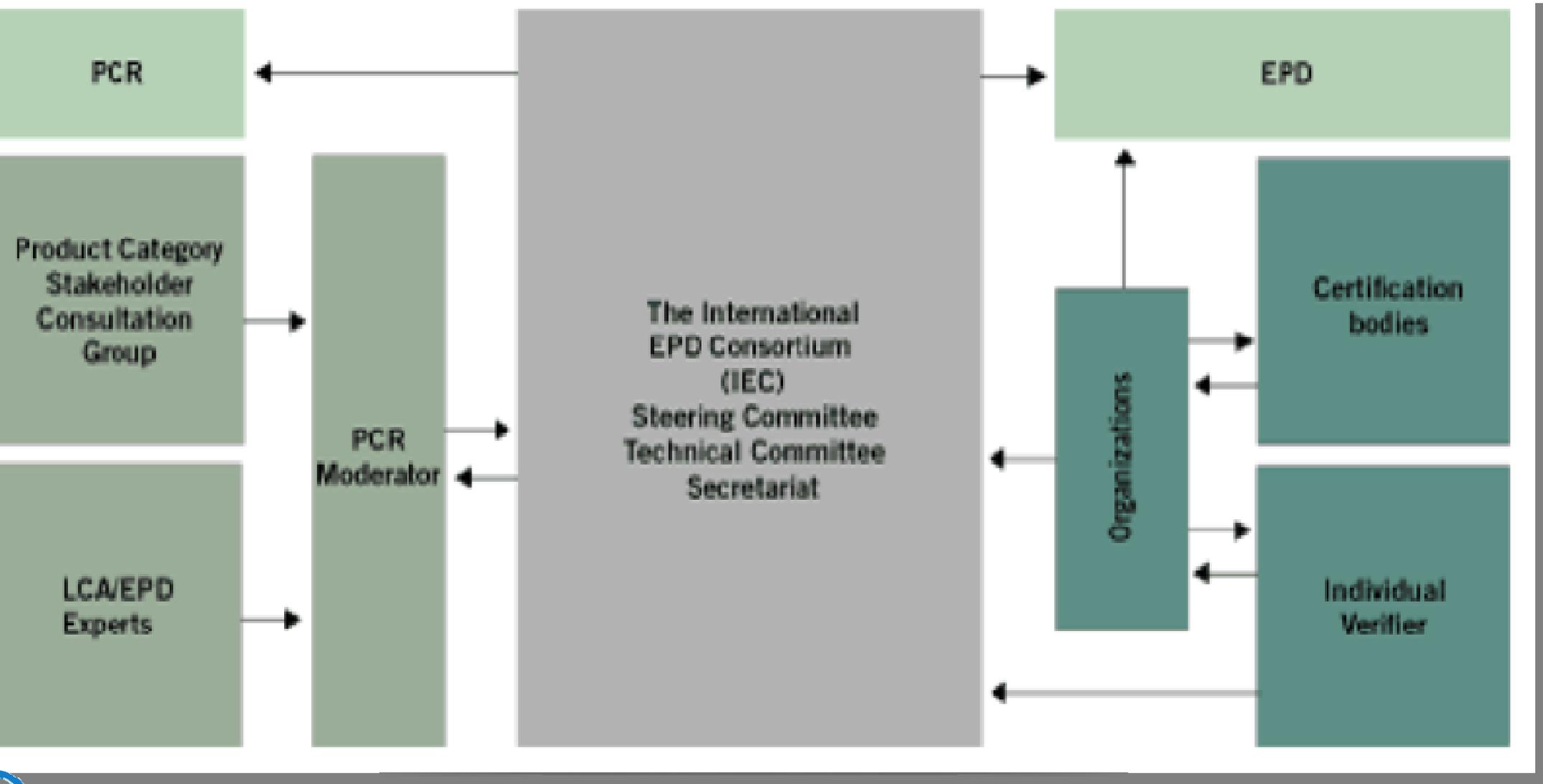


www.environdec.com



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und Umwelt e.V.

www.bau-umwelt.com



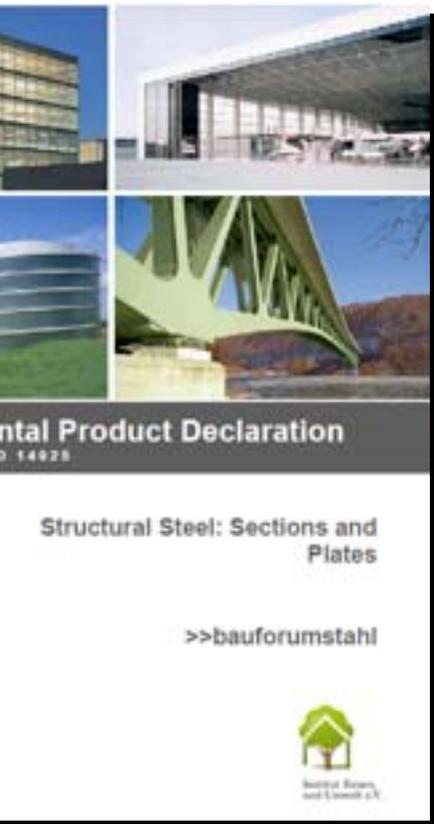


Table 5: Impact assessment indicators of 1 kg structural steel (production and EOL recycling))

| | | Unit | Production [1 kg] | End-of-Life [1 kg] |
|--|------|----------------------------|-------------------|--------------------|
| Abiotic Resource Depletion | ADP | kg Sb-Equiv. | 8.77E-03 | -3.89E-03 |
| Global Warming Potential | GWP | kg CO ₂ -Equiv. | 1.68 | -0.88 |
| Ozone Layer Depletion Potential | ODP | kg R11-Equiv. | 3.19E-08 | 1.04E-08 |
| Acidification Potential | AP | kg SO ₂ -Equiv. | 3.47E-03 | -1.68E-03 |
| Eutrophication Potential | EP | kg PO ₄ -Equiv. | 2.89E-04 | -1.31E-04 |
| Photochemical Ozone Creation Potential | POCP | kg Ethene-Equiv. | 7.55E-04 | -4.57E-04 |



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NUESTROS OBJETIVOS

CEMEX desarrolla la metodología de huella de carbono con los siguientes objetivos:

- Cuantificar las emisiones de gases equivalentes de CO₂ de nuestros productos, con el fin de apoyar nuestras metas de reducción emisiones.
- Realizar un benchmark entre diferentes instalaciones de la compañía para promover una mejora continua en la reducción de nuestra huella de carbono.
- Comunicar a los grupos de interés la huella de carbono de nuestros productos. Esta información permitirá a nuestros clientes obtener la huella específica de los productos de CEMEX que serán utilizados en sus proyectos.



Guía para la elaboración de Declaración Ambiental de Producto (EPD)



Guía para la elaboración de una Declaración Ambiental de Producto (EPD)



PRODUCT CATEGORY RULES

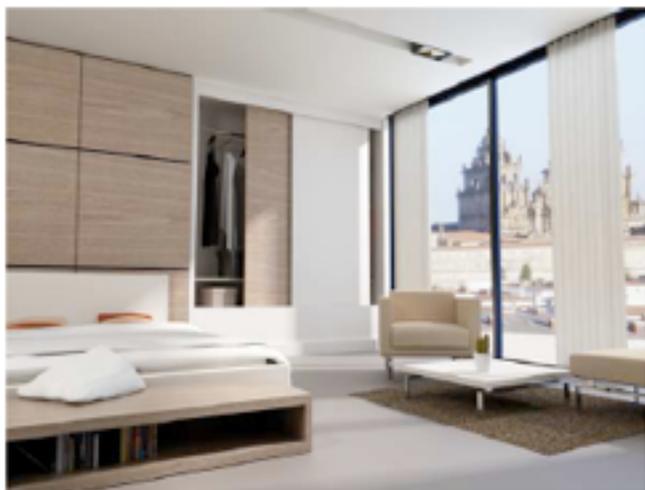
CPC Division 31
Products of wood, cork, straw and plaiting materials

Fibreboard and particle board of wood or other ligneous materials

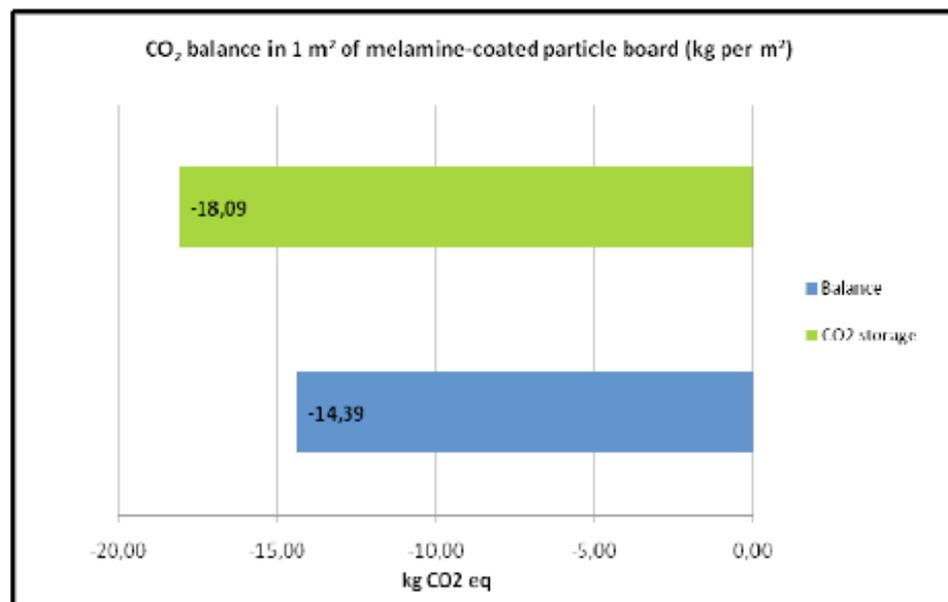
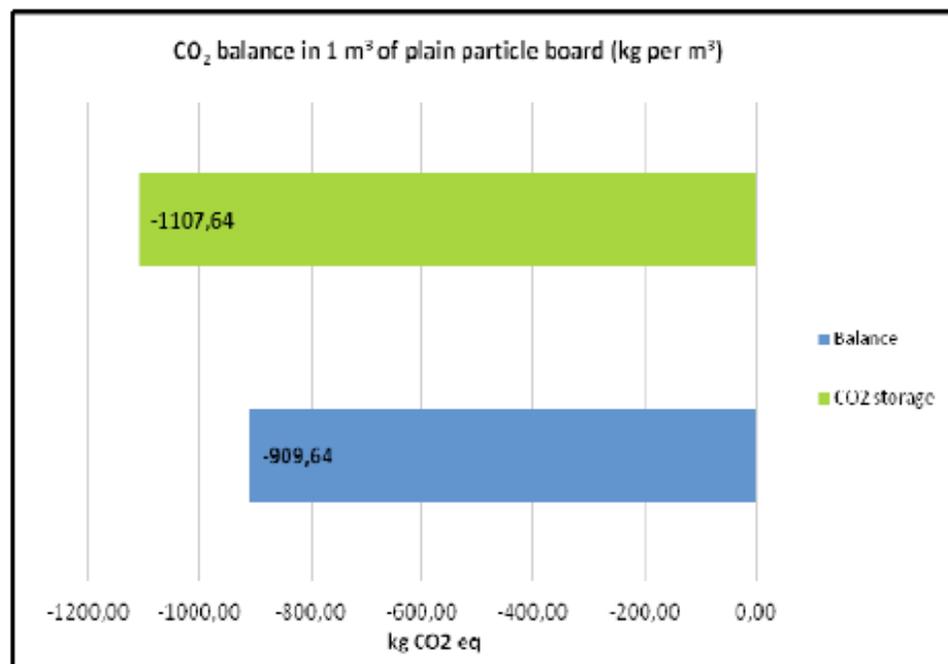




ENVIRONMENTAL PRODUCT DECLARATION (EPD)



ENVIRONMENTAL PRODUCT DECLARATION FOR
PLAIN PARTICLE BOARDS AND FOR
MELAMINE-COATED PARTICLE BOARDS





SISTEMA LEED.

El sistema LEED promueve la adopción global de prácticas constructivas sostenibles y medioambientalmente responsables, mediante la creación y cumplimiento de unos criterios y sistemas de actuación tangibles, medibles y universalmente aceptados. Adicionalmente, el sistema LEED ofrece una ventaja diferencial de mercado ya que los proyectos arquitectónicos o constructivos sometidos a este sistema reciben puntos LEED.

Esta metodología de rating se aplica en cinco áreas clave: salud medioambiental y humana, desarrollo de lugares sostenibles, eficiencia energética, eficiencia del consumo de agua, y selección de materiales y calidad ambiental interior. ECO by Cosentino®, dadas sus características de composición y fabricación, y al contar con la certificación GREENGUARD, facilita que los arquitectos y proyectistas obtengan puntos LEED.

Comportamiento ambiental por unidad funcional (una tabla de 209,8 kg). Tabla 5.

| Categoría de impacto | Unidad | Total | Aguas arriba | Producción | Aguas abajo |
|-----------------------|--------------------------------------|-------|--------------|------------|-------------|
| Acidificación | kg SO ₂ eq. | 0,92 | 0,46 | 0,185 | 0,28 |
| Eutrofización | kg PO ₄ eq. | 0,16 | 0,124 | 0,010 | 0,029 |
| Calentamiento global | kg CO ₂ eq. | 144,0 | 88,8 | 31,6 | 23,1 |
| Oxidación fotoquímica | kg C ₂ H ₄ eq. | 0,055 | 0,037 | 0,007 | 0,010 |



What is the situation of environmental assessments today?

Several methods and standards exist (ISO 14040 since 1996), many recent developments focus on one issue (e.g. climate change, water)

Experts doing assessments using **3 different methods** will not necessarily end up with similar results

Experts doing assessments using **the same method** will not necessarily end up with similar results

de noviembre de 2012

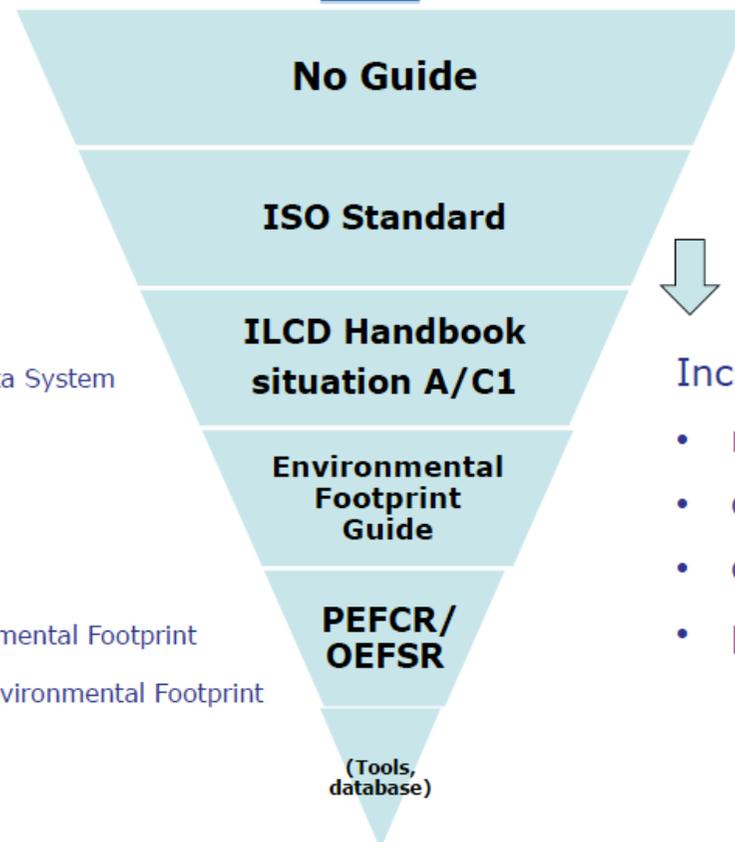


Mr Michele Galatola

Product Team Leader

DG Environment, C1 – Sustainable Production

Consumption Unit



ILCD: International Reference Life Cycle Data System

PEFCR: Product Environmental Footprint Category Rule
OEFSR: Organisation Environmental Footprint Sector Rule

Timelines



**Product
Environmental
footprint**

**Organisation
Environmental
footprint**

| | | |
|---|------------------------------------|-----------------------|
| Analysis of existing methodologies | March 2011 | |
| Draft methodology guides | June 2011 | September 2011 |
| Training on methodology | 13-15 July 2011 | 19-20 Oct 2011 |
| Invited Stakeholder Meeting | 28-30 November 2011 | |
| Pilot tests concluded | 20 Dec 2011 | February 2012 |
| Stakeholder consultation on the policy options | January 2011 – April 2012 | |
| Final methodological guide | 1st Quarter 2013 | |

- Impact Assessment of the different policy options (**November 2012**)
- Internal discussion among Commission services (**December 2012/January 2013**)
- Formal adoption of the Communication "[Building the Single Market for Green Products](#)" (*working title*) (**March 2013?**)
- Launch of a European pilot on PEF/OEF implementation (**March 2013?**)
- Start of the pilots (**July 2013?**)
- Further methodological work related to PEF/OEF (**January 2013**)
- International dialogue on methodologies and data (**continuous**)



- La huella de carbono es una herramienta eficaz de **diferenciación competitiva**.
- La huella de carbono es una herramienta de **mejora de la eficiencia, disminución de costes**
- En la Era de la ECO-Innovación **la velocidad manda**.
- Cuando al mercado se traslada información ambiental eficaz, es inteligente:
“When business meets environment, everybody wins”





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