

# DELIVERING RESOURCE-EFFICIENT PRODUCTS

How Ecodesign can drive a circular economy in Europe



EUROPEAN ENVIRONMENTAL BUREAU

EUROPE'S LARGEST FEDERATION OF  
ENVIRONMENTAL CITIZENS' ORGANISATIONS

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The Circular Economy  
Brussels, 13 October 2016

Which policy  
approaches should the  
EU take forward?

Carsten Wachholz,  
European Environmental Bureau  
(EEB)

# Why design matters



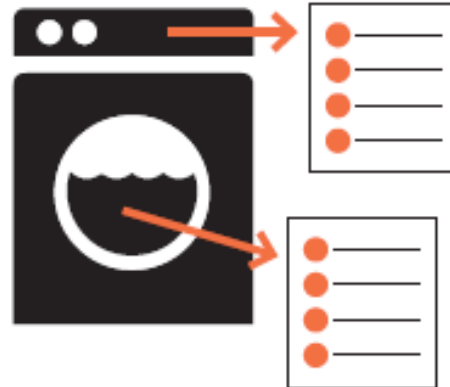
# From product properties...

## DESIGN DECISIONS

### PRODUCT PROPERTIES, E.G.

- Type of materials used
- Amount of materials used
- Production process (as far as defined by design)
- Hazardous substances in materials (as far as defined by design)

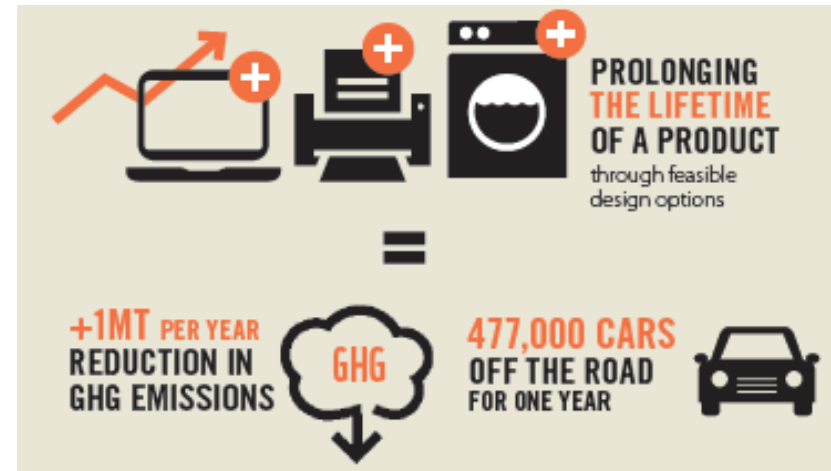
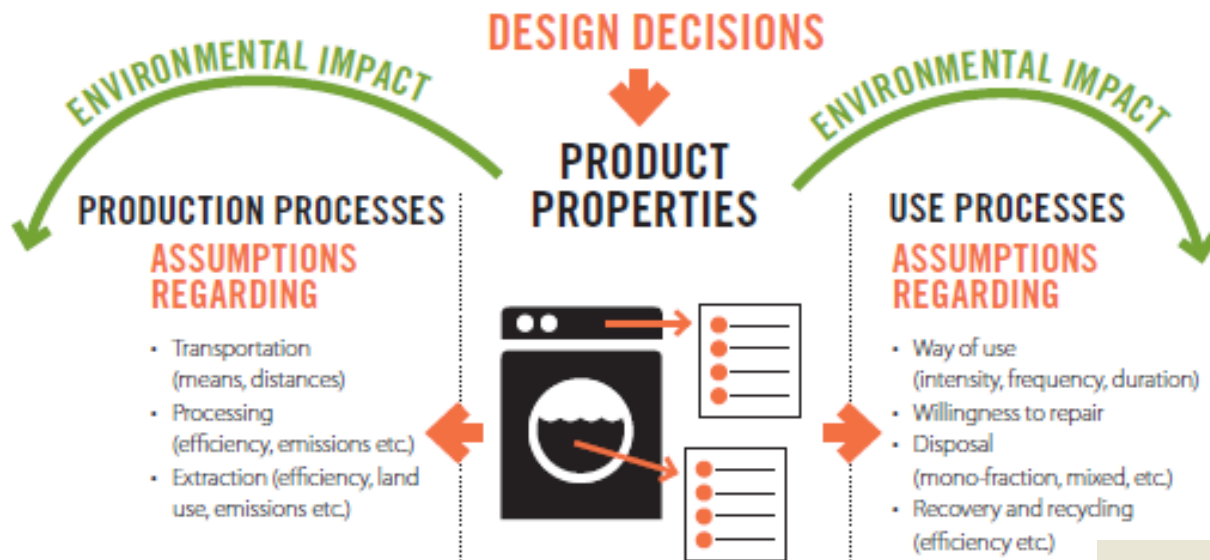
### DESIGN SPECIFICATIONS



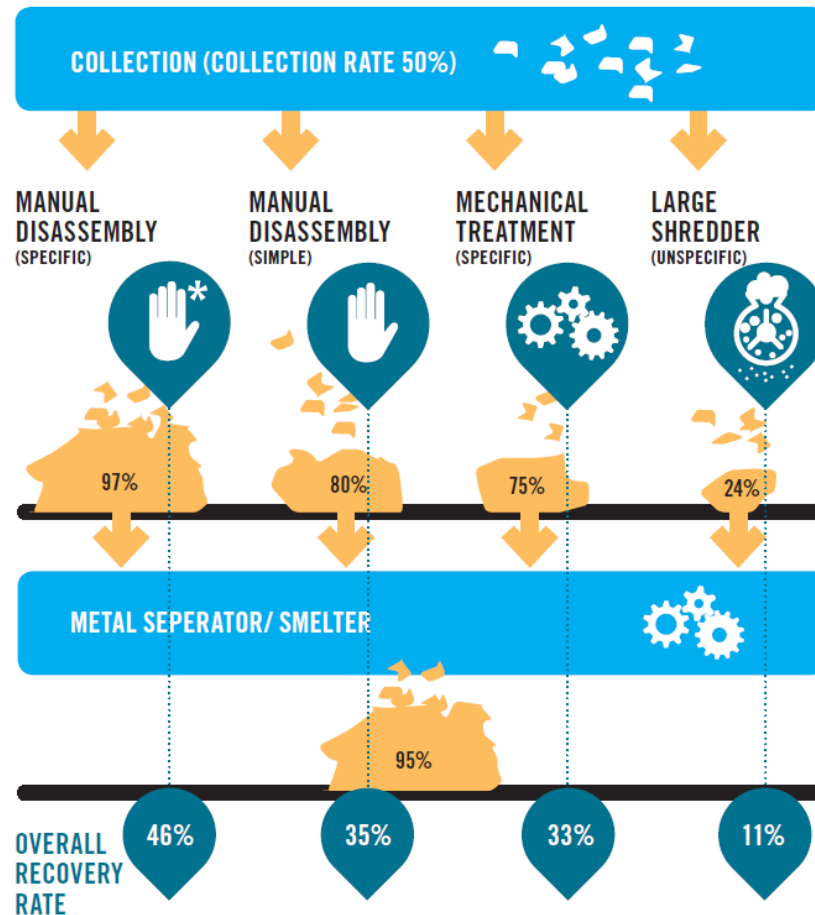
### PRODUCT PROPERTIES, E.G.

- Energy use (in certain modes of use)
- Available functionalities
- Use of other consumables (in certain modes of use)
- Distribution and assembly of different materials within the product

# ...to environmental impacts



# Better alignment of product design with waste treatment processes



Influence of different pre-treatment steps on the overall recovery of gold from circuit boards (Sander 2012)

# Approaches to overcome current challenges

## HOW TO CUT RESOURCE USE WITH ECODESIGN



**BETTER  
REPAIRABILITY  
AND DURABILITY**  
of products

+



**HIGHER  
RECYCLABILITY**  
of materials

+

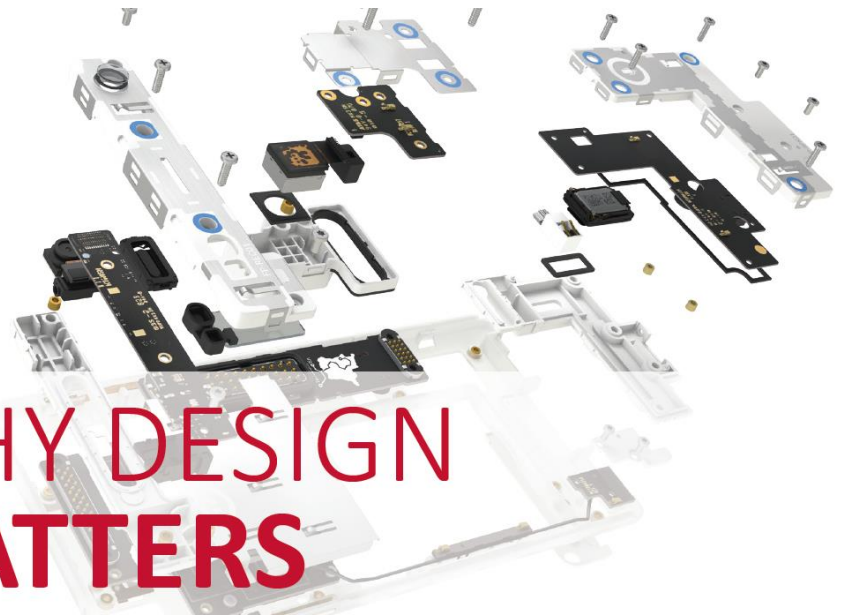


**REMOVAL  
OF HAZARDOUS  
SUBSTANCES**

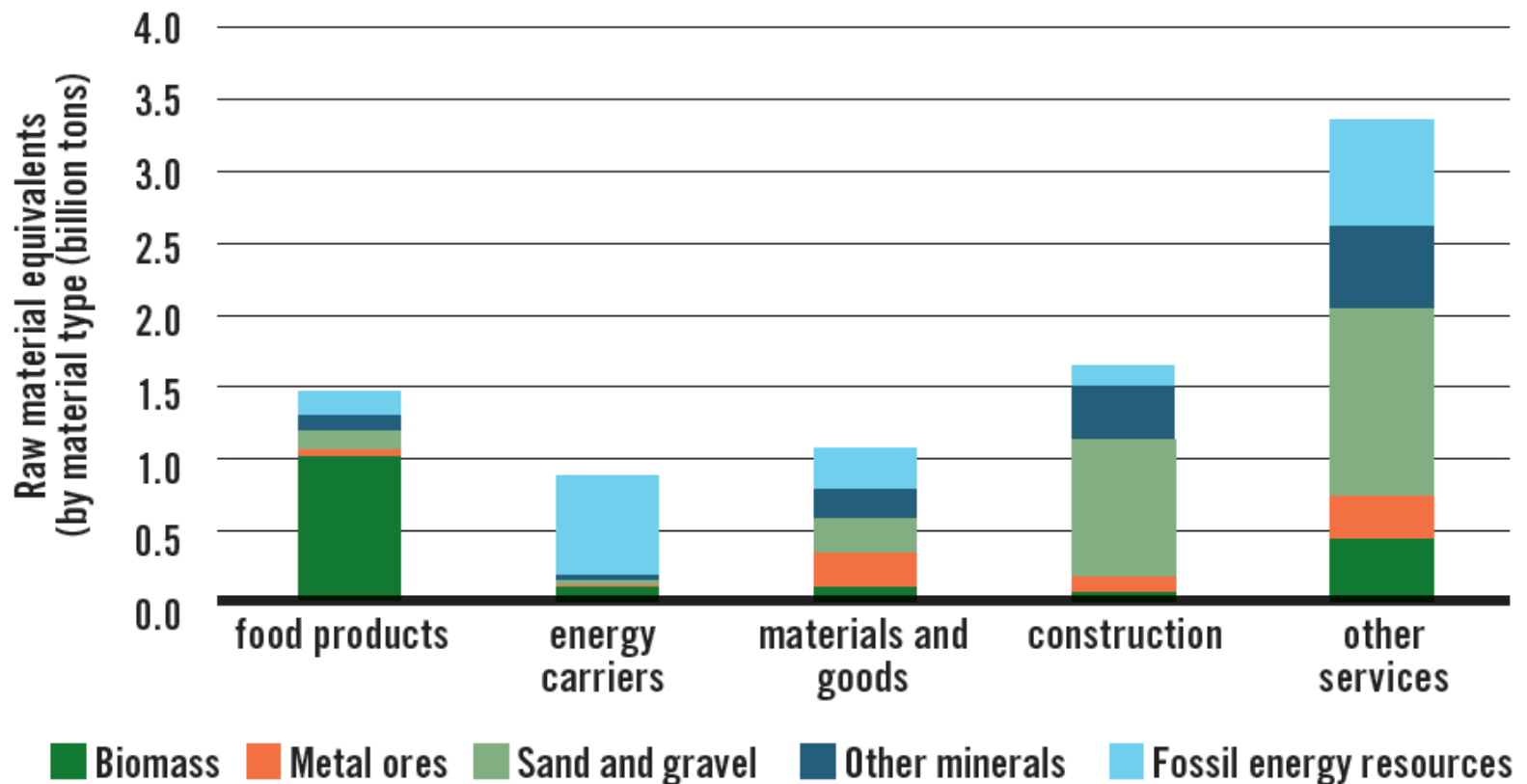
# Where future regulations should focus

- Minimum requirements with regard to durability plus mandatory information to be disclosed to consumers, including on warranties
- Availability of repair manuals, diagnosis tools and spare parts
- Design requirements for (non-destructive) dismantling for repair or replacement of components for reuse, upgrades or recycling
- Material markings and end-of-life information for recyclers including on hazardous substances
- Industry initiatives to increase overall recycled (plastics) content across different product categories instead of labelling individual products

**WHY DESIGN  
MATTERS**



# Key sectors to tackle resource consumption

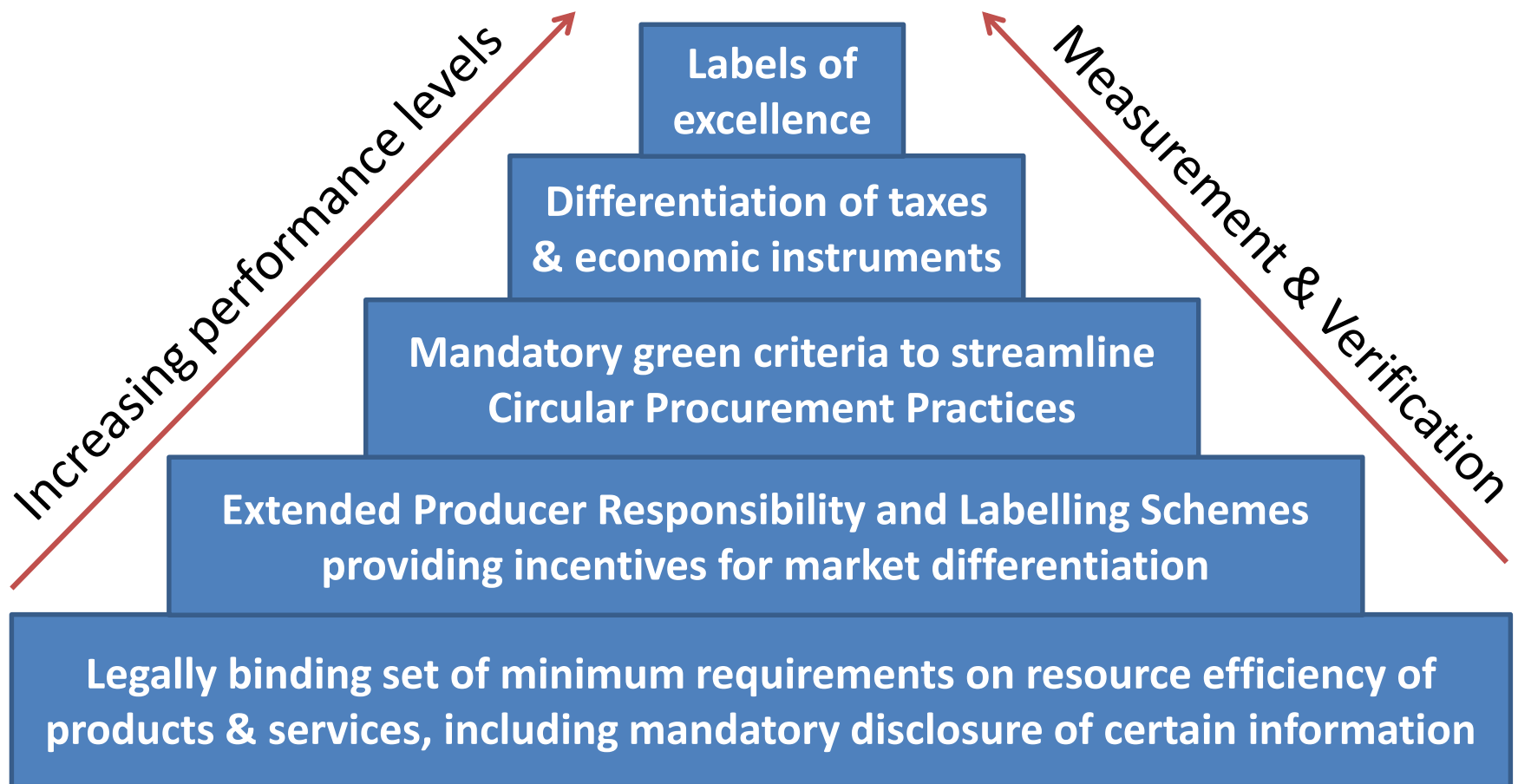


Schoer, Weinzettel, Kovanda,  
Giegrich, Lauwigi (2012) for EU27





# Circular Economy requires a more coherent Product Policy Framework





**Carsten Wachholz, Senior Policy Officer  
Resource Conservation & Product Policy  
European Environmental Bureau (EEB)**

Tel: +32 (0) 2 790 88 12 | Fax: +32 (0) 2 289 10 99

Email: [carsten.wachholz@eeb.org](mailto:carsten.wachholz@eeb.org)

Website: <http://www.eeb.org/> - <http://makersourcescount.eu/>

Twitter: [http://twitter.com/Green\\_Europe](http://twitter.com/Green_Europe) - <http://twitter.com/resourcescount>

EC register for interest representatives:  
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