



THE **LCA** CENTRE
PACKAGING LIFE CYCLE ASSESSMENT

Packaging & the Environment:
perception, idealism, science



PACOMBI
GROUP

Nice to meet you



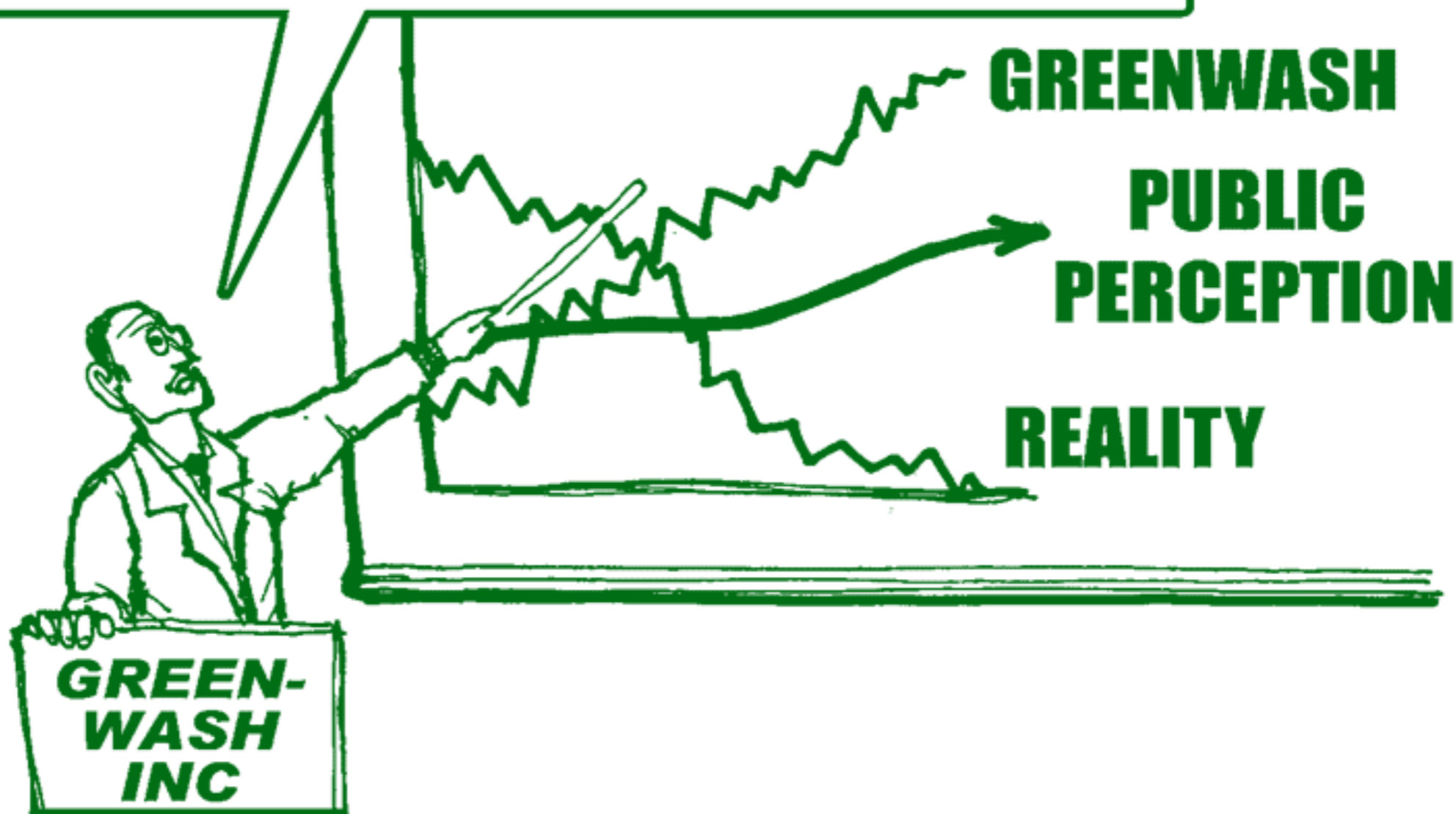
Technical Director of:



PhD Candidate at:



*YOU CAN IMPROVE PUBLIC PERCEPTION BY
OFFSETTING THE REALITY OF YOUR PROJECT
WITH MORE INVESTMENT IN GREENWASH INC*

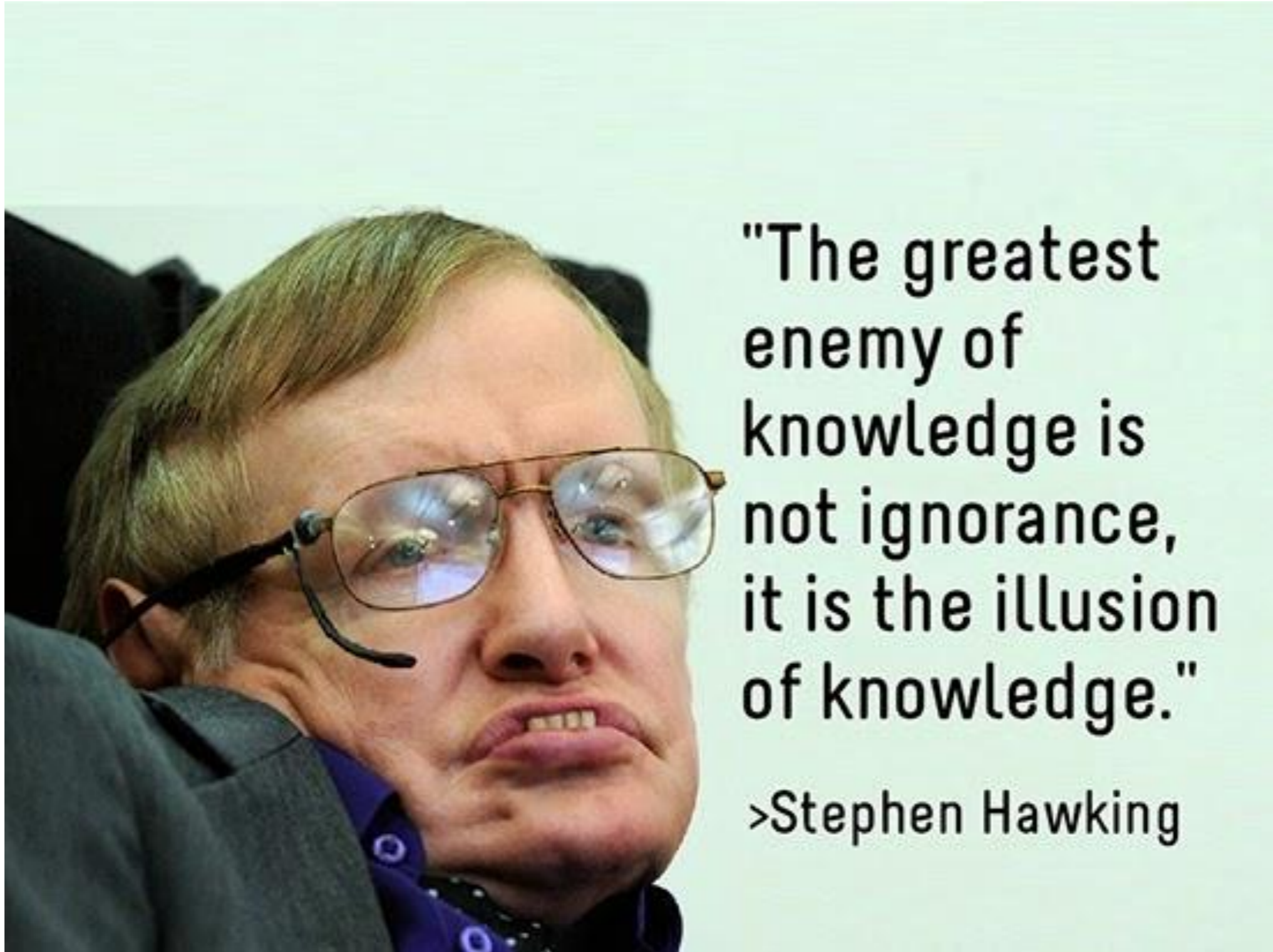




Idealism / Perception

- Recyclable Material
- Renewable Resource
- Circular Economy
- C2C
- Locally sourced
- Mono Material
- Recycling
- Banning
- Eco Label
- PEF/EPD
- Plastic Footprint
- Carbon Footprint
- Carbon Neutral
- Weight Reduction
- Reuse
- Plastic Soup
- Tomorrow what???????*





"The greatest enemy of knowledge is not ignorance, it is the illusion of knowledge."

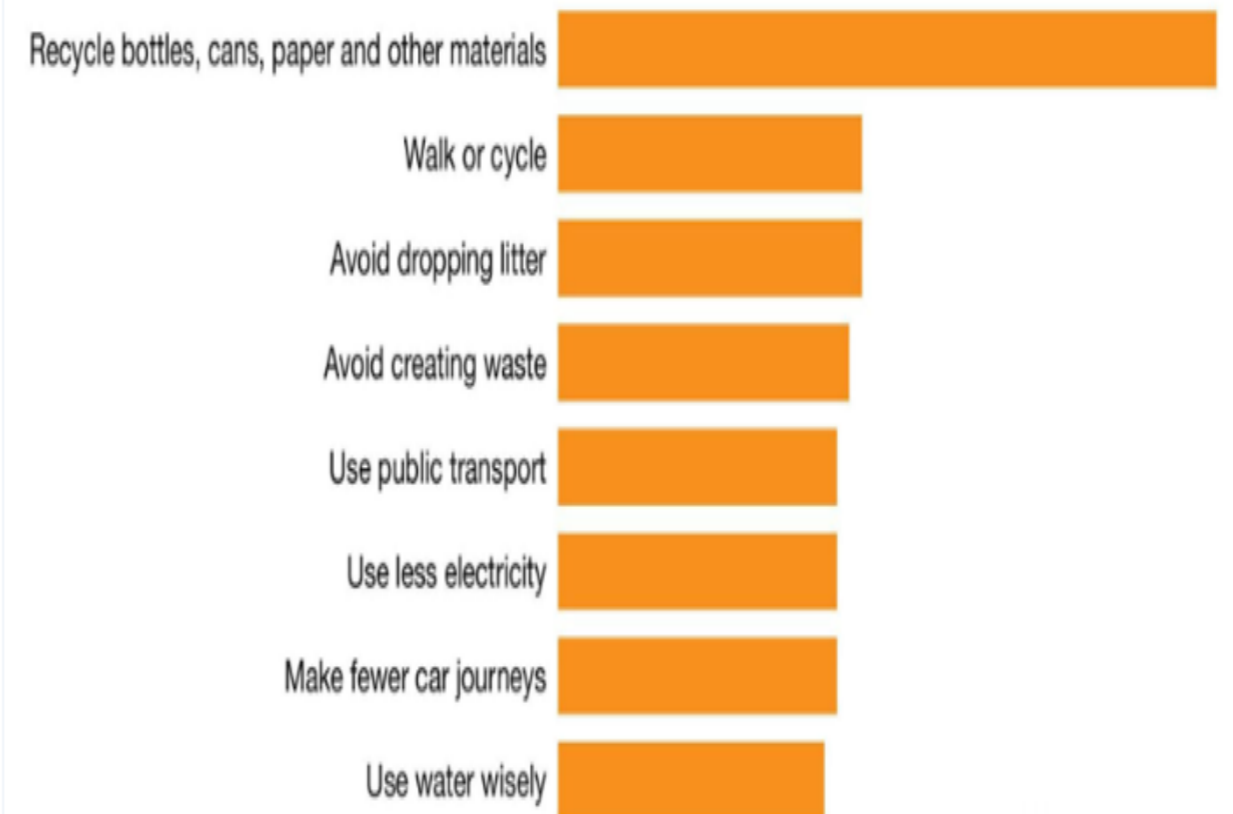
>Stephen Hawking

Perception v/s reality

What are the challenges?

- End-of-life focus
- Material preference
- Lack of technical knowledge
- Confusion
- Little interest in the function (true value)
- Political agenda
- Opposing messages (commercial bias)
- Winners & Losers
- Relevant coherent eco-innovation
- Lack of joined-up thinking
- Idealism & goodwill risk

Figure 1: Consumers' view of contributing to more sustainable environment

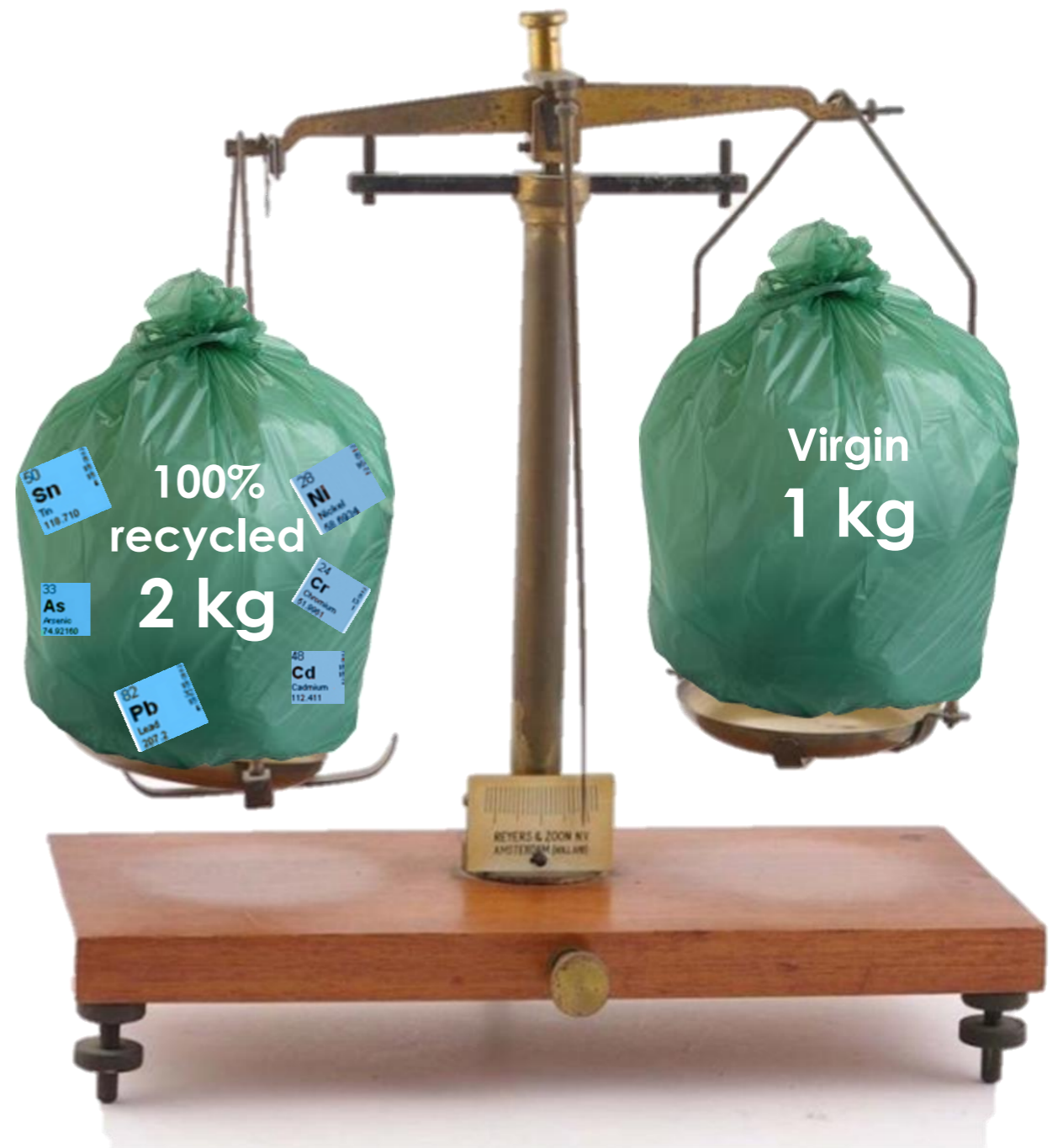


There is no “one size fits all”
solution for packaging & the environment



Recycling?

- Quality concerns
- Contaminations
- Grading systems
- Intelligent recycling v/s idealistic recycling
- Recyclable v/s actually being recycled



Banning ?

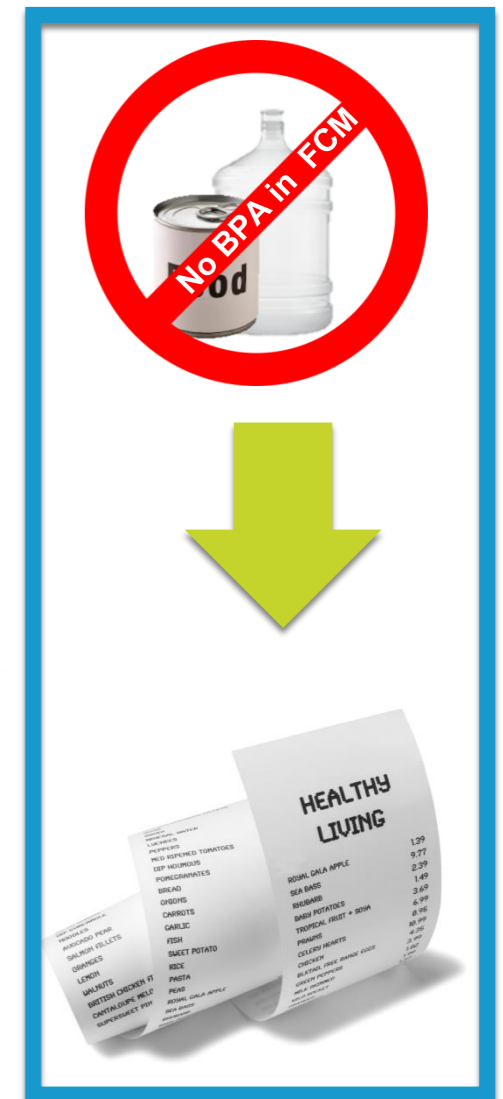
Netherlands



Taiwan



France



Renewable resources?

(as impossible as *perpetuum mobile*)



Much of the impetus behind the growth of environmentalism came from concern about resources, catalysed by the Club of Rome's famous 1972 report *Limits to Growth*, which predicted that many would run out before long. That perception proved a bit too simple, and greens also got it wrong by asserting that the main problem was with non-renewable resources, like minerals and fossil fuels – which can be irretrievably exhausted – rather than renewable ones which can be replenished. In fact, overuse of such renewable resources as forests, soils and water is plunging the world into a grave environmental crisis long before the non-renewable resources peter out, though of course it still makes sense to use these wisely and efficiently.



Soil is a non-renewable resource

Its preservation is essential for food security and our sustainable future

Bio materials?

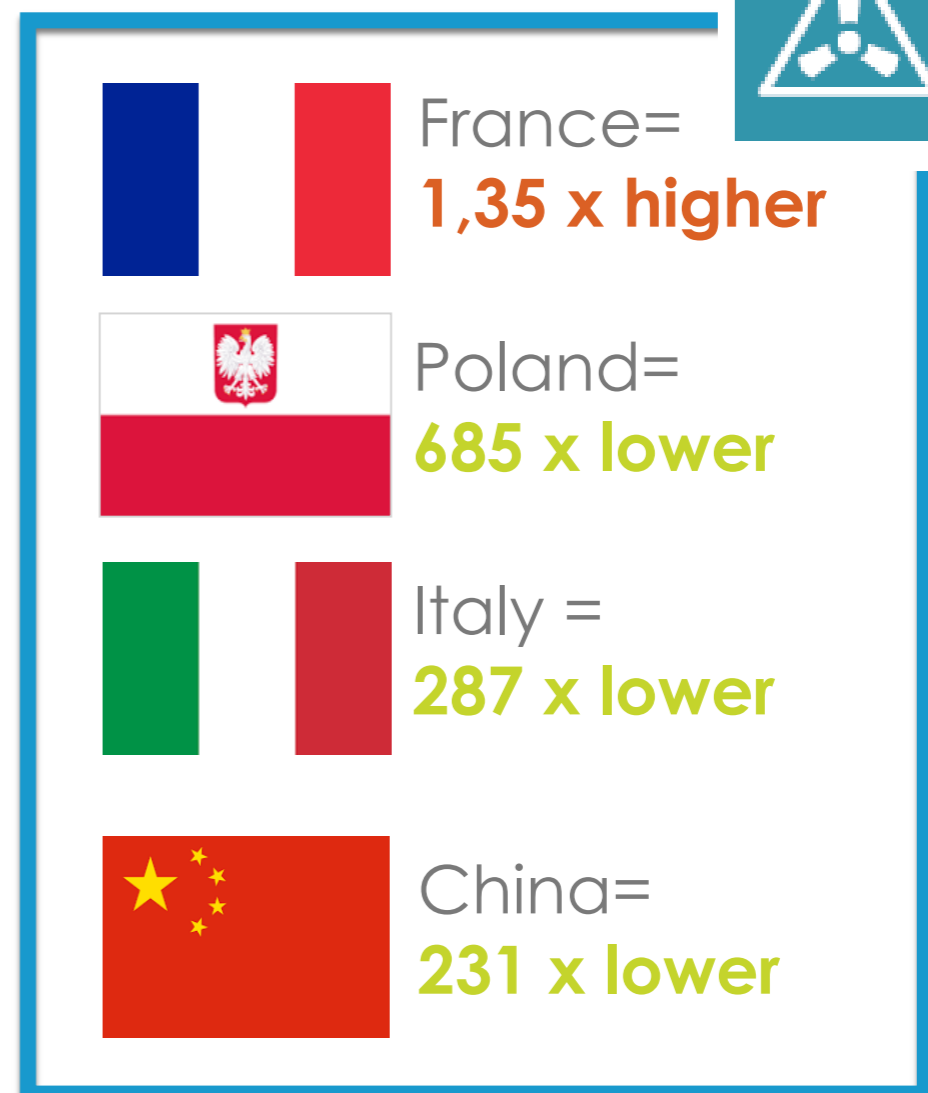
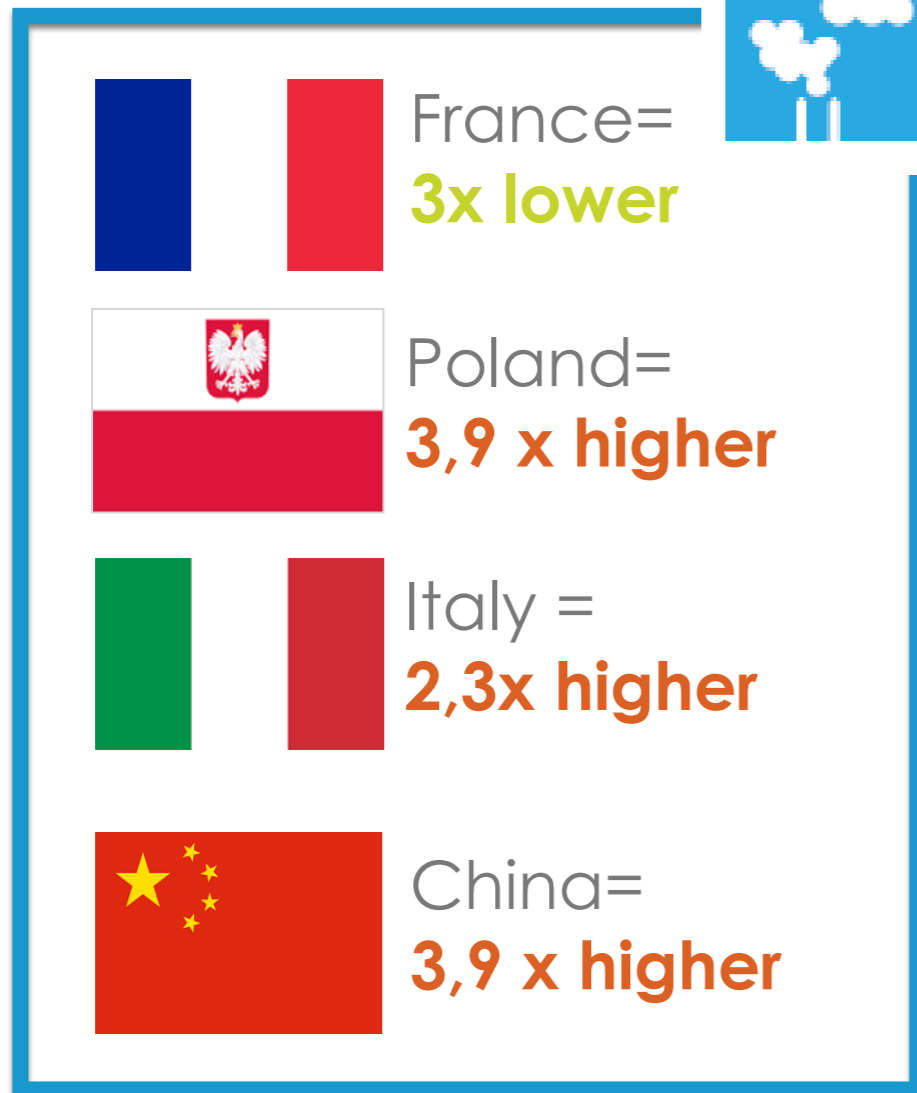
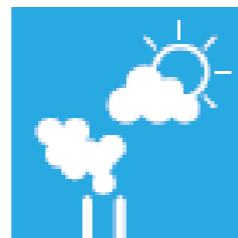
- Efficiency concerns
- Biased LCA studies
- Abuse of the term “bio waste”
- Vague eco-claims
- High cost
- Unresolved end of life scenario



Locally sourced?



Reference
Belgium = 1



Plastic soup?

Deliberate actions



WHO DUMPS THE MOST?

More than half of the plastic waste that flows into the oceans comes from just five countries: China, Indonesia, Philippines, Vietnam and Sri Lanka.

The only industrialized western country on the list of top 20 plastic polluters is the United States at No. 20.

The U.S. and Europe are not mismanaging their collected waste, so the plastic trash coming from those countries is due to litter, researchers said.

While China is responsible for 2.4 million tons of plastic that makes its way into the ocean, nearly 28 percent of the world total, the United States contributes just 77,000 tons, which is less than 1 percent, according to the study published Thursday in the journal Science.

Plastic footprint?



Carbon footprint?

Resource depletion concerns

water

soil

oil

phosphor

forests

Fish

natural
gas



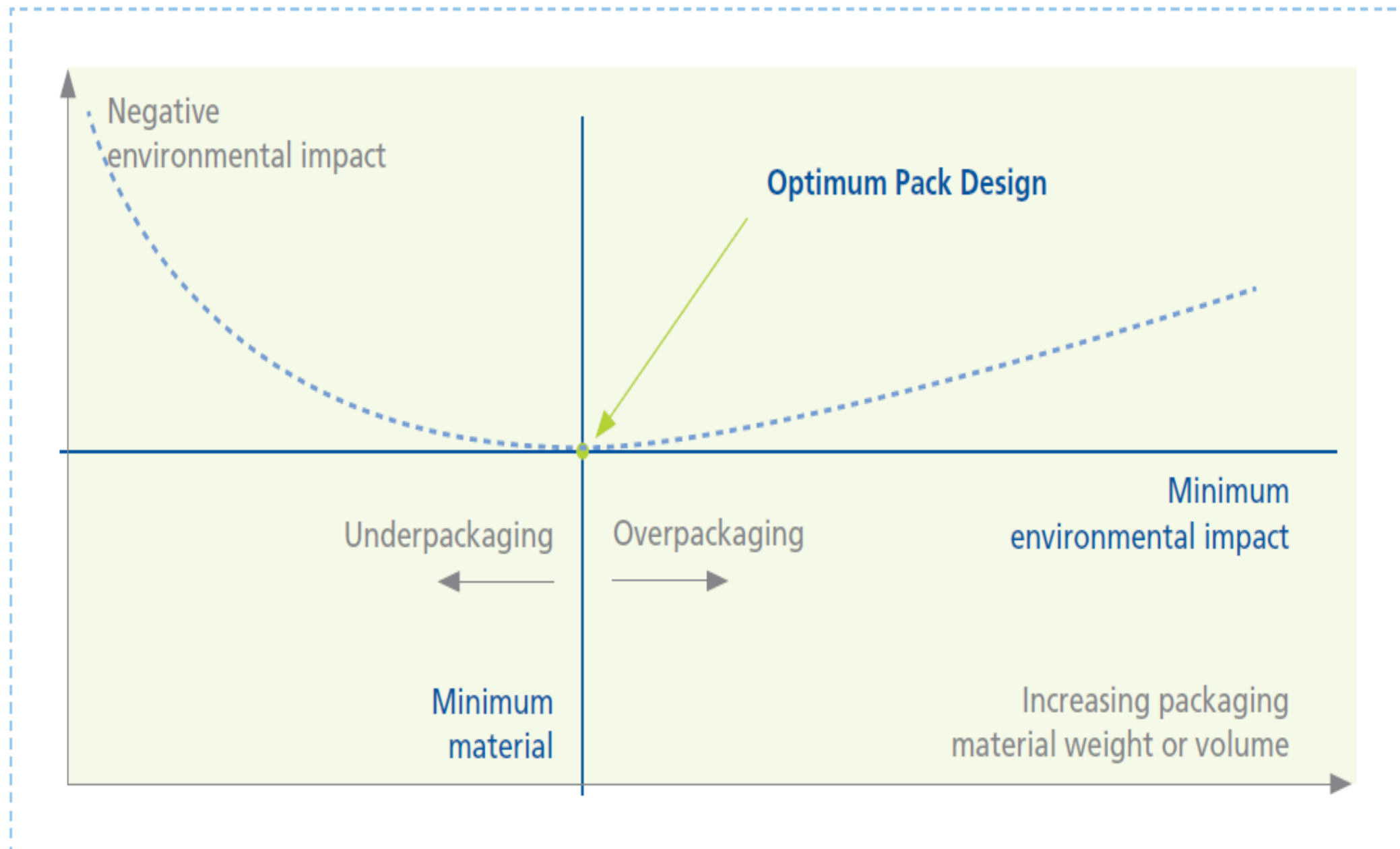
Mono-material?

How about:

- Ultra high gas barrier
- Enhanced moisture properties
- Enhanced aroma barrier
- Mineral oil barrier
- Product use-life extension v/s recyclability
- Etc.....



Weight reduction ?



Pack/ Product combination

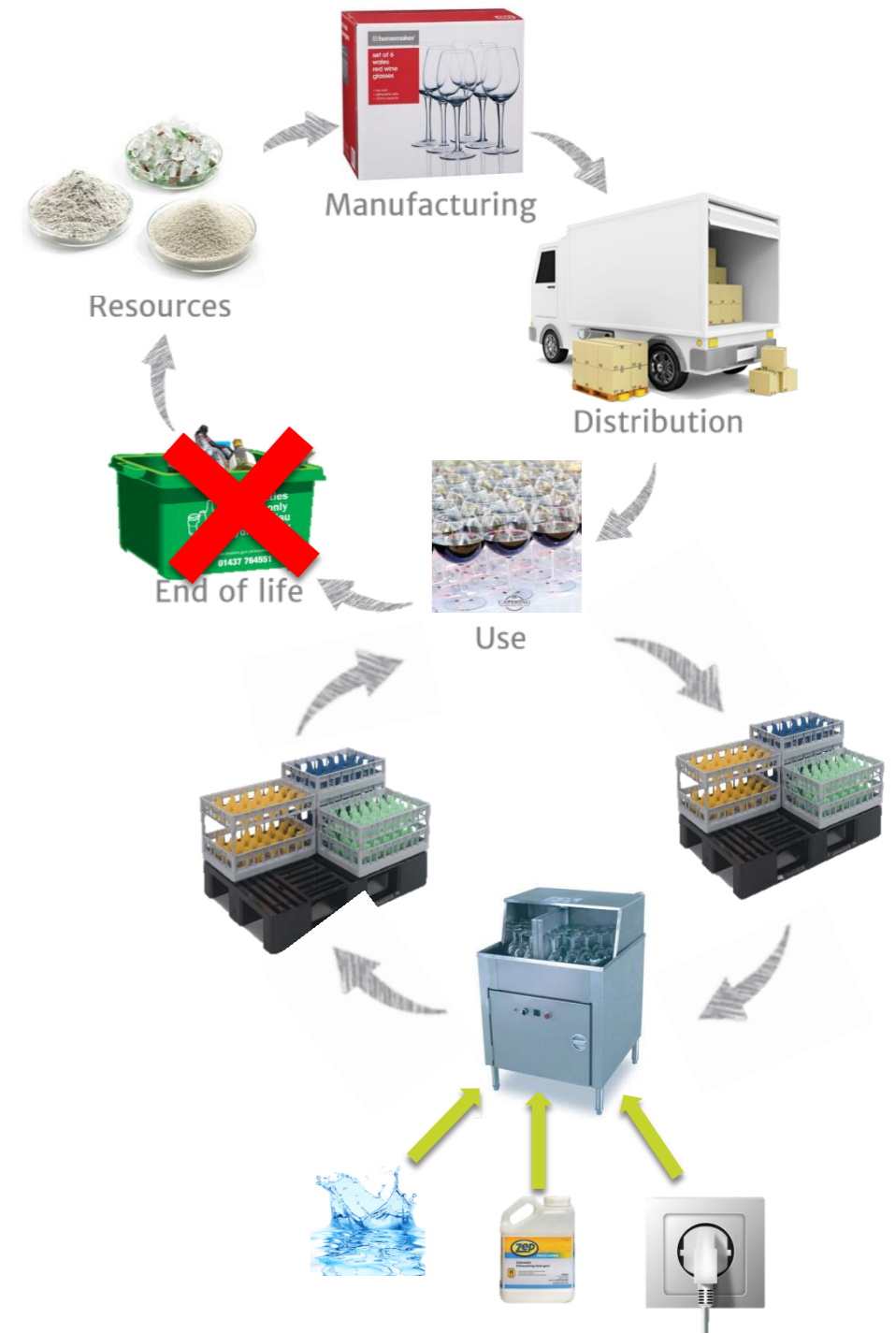


Source:

Reuse

It is not only about the product

- Impact of the product
- Impact of the usage activity
- Impact of other products involved in the usage activity
- Number of predicted usage cycles



Product Environmental Footprint (PEF) & Environmental Product Declaration (EPD)

Challenges

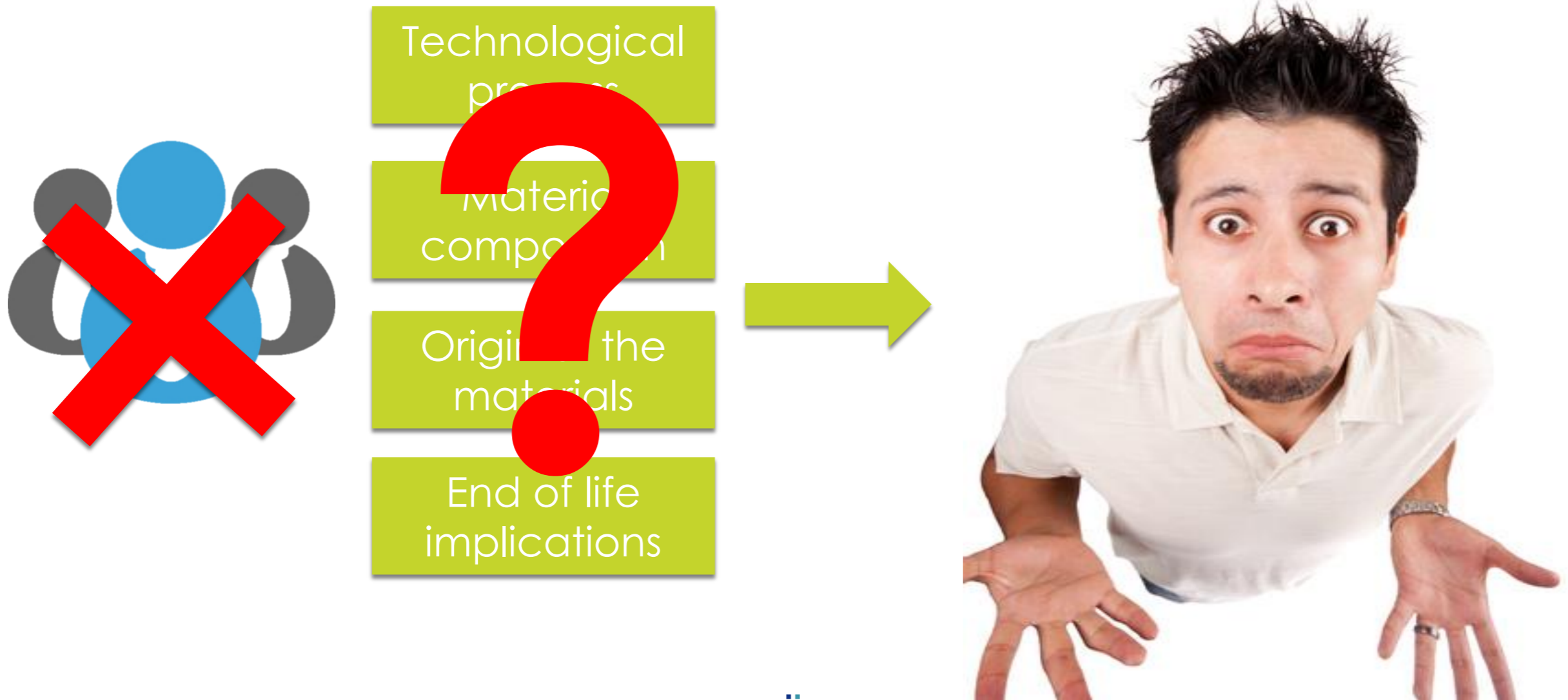
- Requires Stakeholder Input
- In a global market
- Most often with intermediaries such as importers and distributors
- Involving issues of IP and income model

How can you position your product from an environmental perspective?



Life Cycle Assessment (LCA)

Technological relevance & Stakeholders involvement

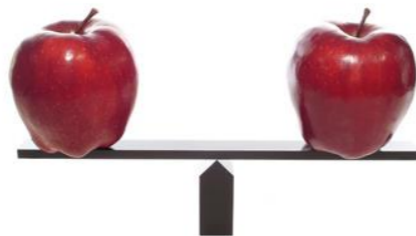


Laboratory approach

Overcoming the lack of stakeholder involvement

Which of these packs has the lowest environmental impact?

Category



Quantification



Comparison

How The LCA Centre can help you?

- A Generic or Specific **environmental study (LCA)** of pack or process for benchmarking
- Generic **environmental and materials studies (LCA)** of competitive equivalent products
- **Verification** of existing environmental claims
- **Development and defense/support** of new claims, eco-labels and eco-ratings
- **Training and education** as to selling and marketing environmental benefit
- Input to **CSR programs** as relates to packaging
- Verification of functional specification **compliance**
- Verification of product **material composition**

*Unsubstantiated eco-claims are a risk to be avoided
it's time to get informed!*



Our partners and organizations using our guidance



A.S. Watson Benelux



X Gemeente
X Amsterdam
X



Thank you for your attention
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