Another perspective on environmental impacts of planned obsolescence

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Introduction

- A **definition** of planned obsolescence (Oxford Dictionary):

"A policy of producing consumer goods that rapidly become obsolete and so require replacing, achieved by frequent changes in design, termination of the supply of spare parts, and the use of non-durable materials."

- Remark: "planned" requires an intention, which is hard to prove

- **Focus** of the presentation: obsolescence (life span of products)

- **Questions**:

1. Is it good for the environment to discourage obsolescence?
2. If so, how to do it?

Key-messages

1. “The longer, the better (for the environment)” is not always true
   - It depends on :
     (a) The distribution of environmental impacts over the life-cycle of goods
     (b) The relative importance given to each impact
   - Consequently, policy recommendations depends on (a) and (b)

- 2. When it is the case to do so, discouraging obsolescence is not an easy task

Lifespan: which definition?

- **Observation:** confusion about the concept of lifetime of products, mainly because of units, and assumptions

- **Here:** lifespan=useful lifespan

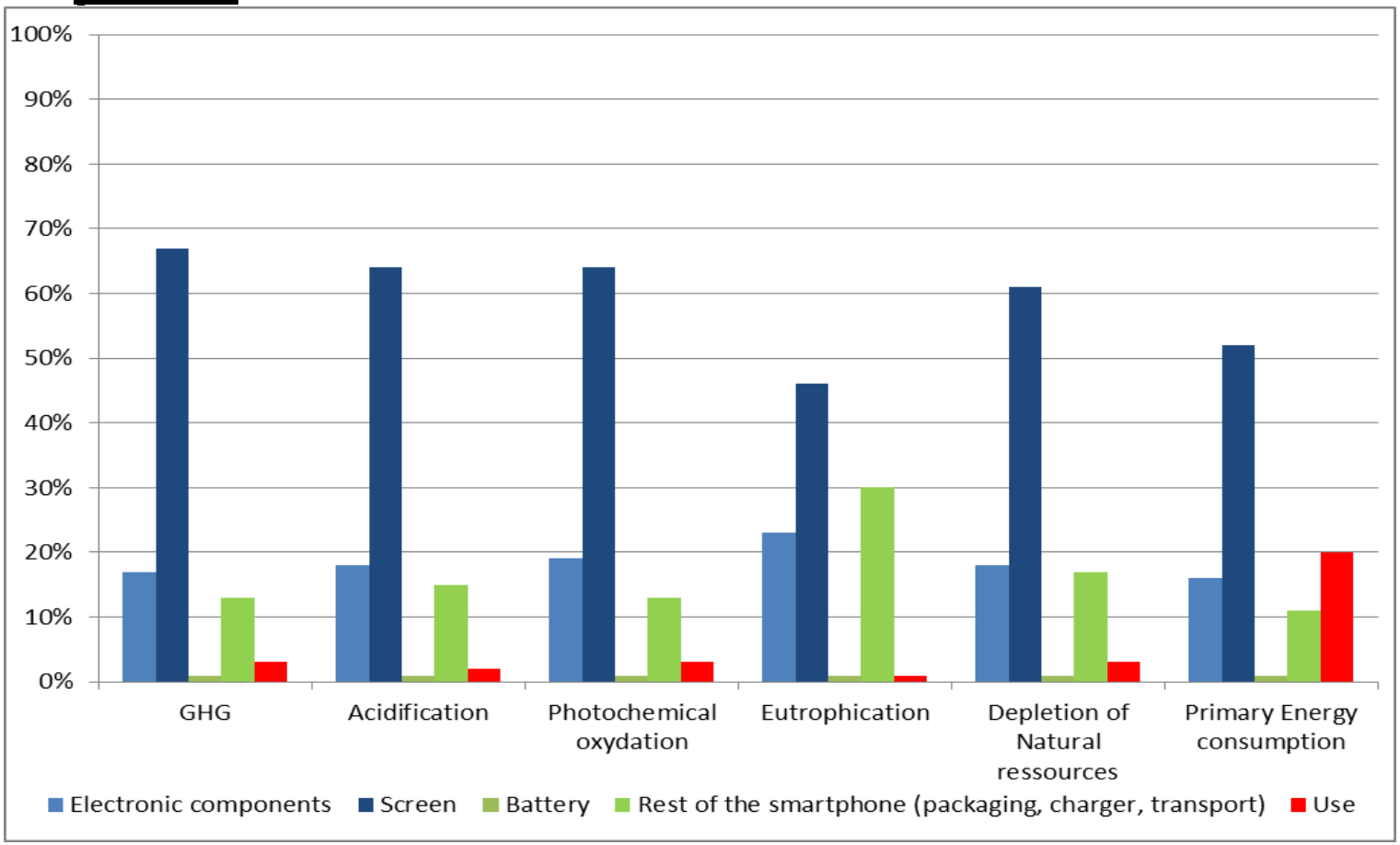
e.g. number of functioning hours of lighting bulbs

- **Reminder:** the life cycle of a product is made up of 3 main phases

Manufacturing – Use – End-of-life

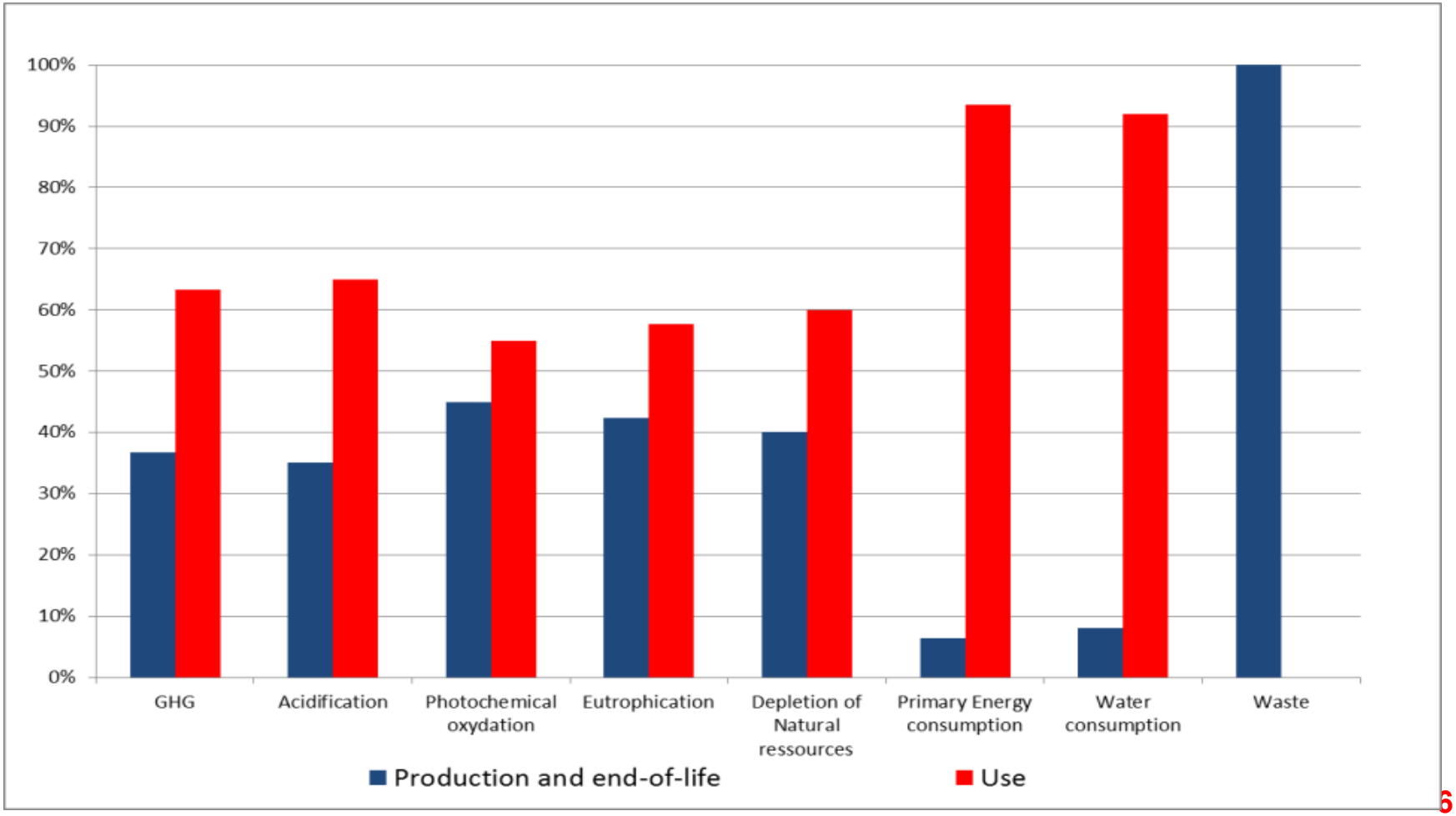
Smartphones

- Most of the impacts generated during the **manufacturing phase:**



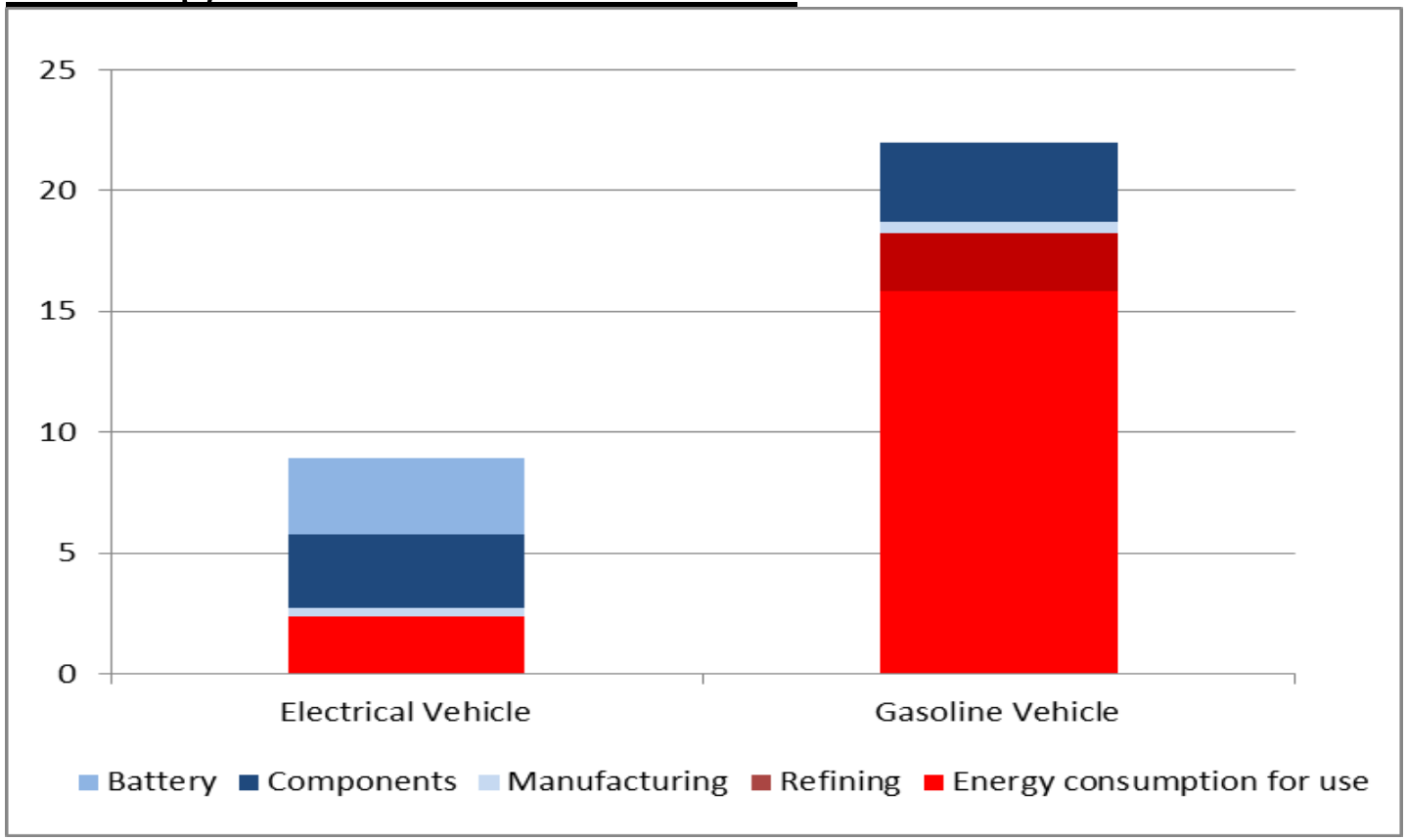
Refridgerators

- Most of the impacts generated during the **use phase**:



Vehicles: a dynamic perspective

- Most of the impact (tCO_2eq) during the use phase for gasoline vehicules
- BUT most of the impact during manufacturing and end-of-life stages for electric vehicles



What to do?

- No simple answer, because (among others):
  - « Socio-economic obsolescence » sometimes comes before « functionnal obsolescence » (e.g. some operational appliances are disposed of, see DEFRA, 2010)
  - Distinction between «quality-improving innovations » and « obsolescence-accelerating innovations » is sometimes hard to draw
  - Information assymetry
  - It is difficult to make consumers willing to pay for « high-environmental quality » goods

Policy recommendations

	Goods with production/end-of-life impact > use impact Up-to-date goods	Goods with production/end-of-life impact < use impact « Investment or « Workhorse » goods
Producer	- Fostering new business models (functionality, circular economy, etc.) - Ecodesign and flexibility - Labelling (ex: number of functionning cycles/hours)	- Resources-efficiency innovations must be encouraged - Final-use targeted information (ex: energy labels)
Consumer	- Encourage changes in how people relate to objects	- Encouraging households to avoid oversized equipment - Promoting leanness