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# Development of usage models for the ecodesign of products: the concept of usage ecodrift (UED)

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# 1. The behaviour centered design challenge

- The UED concept
  - “For the usage of a product with a given functional unit, a UED is defined as a usage practice which, in comparison to a reference usage, causes:
    - (i) an increase in energy consumption and/or
    - (ii) an increase in materials consumption and/or
    - (iii) abnormal wear and tear of the product (and so the need to replace it earlier)”

## 2. UED reduction methodology

- 5 steps
  1. Definition of the Usage of Reference
  2. User segmentation
  3. Experimental identification of the UEDs
  4. Establishing UED models
  5. Environmental evaluation

# 3. Conclusion

- The method allows identifying and quantifying the predominant UEDs for each user segment
- Depending on the UEDs distribution and on the user segments, pertinent technological solutions can be designed
- The method can be of great help when redesigning products to better their environmental performance

# 4. Perspective

- Using smartphones and connected objects to adapt the feedback given to the user



# Thank you for your attention