Product environmental footprint and Consumption footprint to support Green Deal

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As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.

As a Commission service independent from national or corporate interests, the JRC builds trust by providing evidence to support the definition of policies - from their design to implementation, monitoring and evaluation.
Contents

• Life cycle assessment in the EU policies, Green Deal and beyond
• Product environmental footprint evolution
• Consumption and consumer footprint, addressing SDGs and planetary boundaries
“A life of dignity for all within the planet’s limits that reconciles economic prosperity and efficiency, peaceful societies, social inclusion and environmental responsibility is at the essence of sustainable development”

COM(2016) 739 final: Next steps for a sustainable European future
Life Cycle Thinking

Core concept for Sustainability Assessment of Goods, Services, Organisations, Regions and individual consumption patterns
Evolution of LCA in EU policies over the last 30 years

- Since 90’s, Life Cycle thinking progressively adopted in EU legislation
- Since 2008, JRC was instrumental in making LCA tailored for policies
Life cycle thinking is central in the EUROPEAN GREEN DEAL and beyond

Key Policies
- Bioeconomy strategy
- Industrial strategy
- Better regulation
- New Consumer Agenda
- and many others...

Implementing tools
- Environmental footprint
- Comparing product A and product B
- Consumption Footprint
- Domestic Footprint
- Assessing impacts of individual consumption
- Life Cycle Assessment
- Macro-scale assessment of EU consumption and production
The EU green deal, LCA and PEF/OEF

European Green Deal
- Life cycle approach
- Environmental footprint of products
- Transboundary effects (consumption perspective)

Relevance of:
- Life cycle thinking
- LCA
- PEF/OEF

European Commission
Environmental Footprint and EU Platform on LCA
Methodological developments for LCA in policies
Consumption Footprint

Environmental emissions to air, water and soil

Potential Impact indicators

Assessment

Planetary boundaries

SDGs

Consumption footprint platform

- Data per MS and per EU
- From 2010 to 2020
- Numerous features for exploring results
  - Decoupling
  - Planetary boundaries
  - SDGs

LCA categories of impacts, planetary boundaries and SDGs

Sala et al. 2020 Environmental sustainability of European production and consumption assessed against planetary boundaries. Journal of Environmental Management 269, 110686
Consumer footprint calculator

- Assessment of individual footprint
- Numerous collaborations within and beyond the EC
- Training for ECA, REA, national bodies etc
Conclusions

- Life cycle thinking and assessment may support the quantitative integrated modelling of (socio-economic) and environmental aspects, their link with sustainability targets and the with SDGs, e.g. as in the consumption footprint platform.

- At product and organisation levels, the EU environmental footprint plays an important role to support a transition towards sustainable production and consumption patterns.
Thank you