



Product Environmental Footprint Guide developed by European Commission

Pilot test in food sector

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Agenda



- A few words about Quantis
- The context: Product Environmental Footprint (PEF)
- The pilot test in food sector: the Nespresso coffee case study
- Conclusion
 - Main feedbacks
 - Next steps

Timing : 16h40 – 17h05

Quantis overview

Our team

Based in 4 countries



Switzerland



Canada



France



United States



Our partners

Academic research centers



Some of our clients



The context: Product Environmental Footprint (PEF)



Product Environmental Footprint (PEF)

- **European Commission (EC)** services are working towards the development of a **harmonised methodology** for the calculation of
 - the **environmental footprint of products** and
 - a technical guide for the calculation of the **environmental footprint of organisations**
- In 2011, **10 selected pilot projects** tested the EC methodologies (draft version) in the process of their revision



Questions

- How does the PEF methodology translate **in a real-life scenario** ?
- What are the main **findings, recommendations and conclusions** that can be made from the exercise?

The pilot test in food sector: the Nespresso coffee case study



Goal and scope

The system considered is a Nespresso 40 ml espresso prepared with a Nespresso Essenza machine



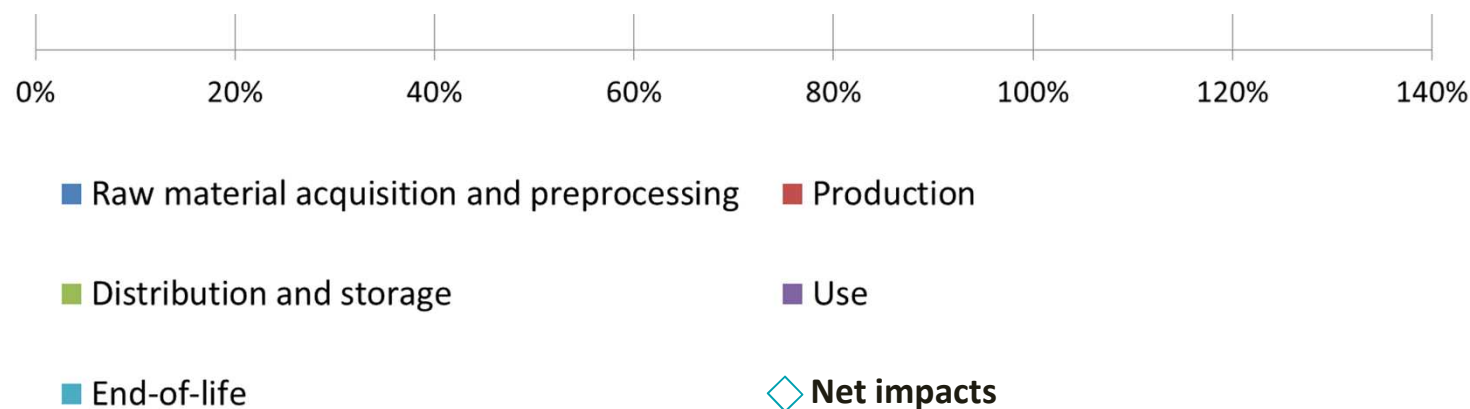
Life cycle stages: from beans to cup



PEF compared to original LCA: climate change

Impact per cup of Nespresso (in % of net total of PEF result)

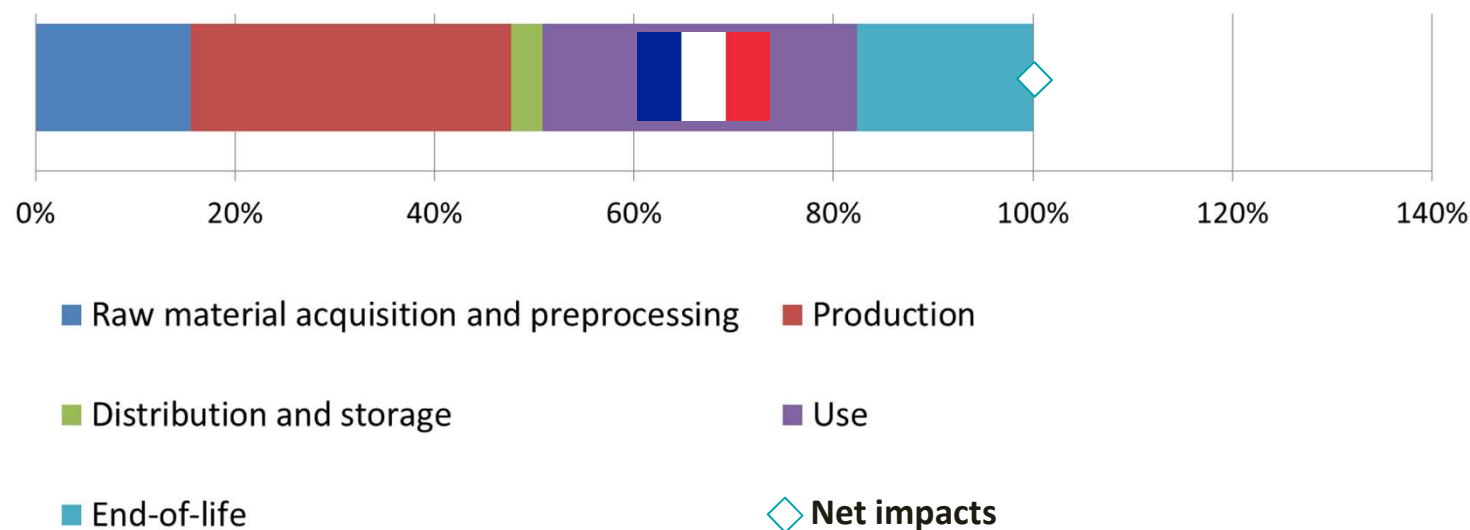
Based on PEF
guide



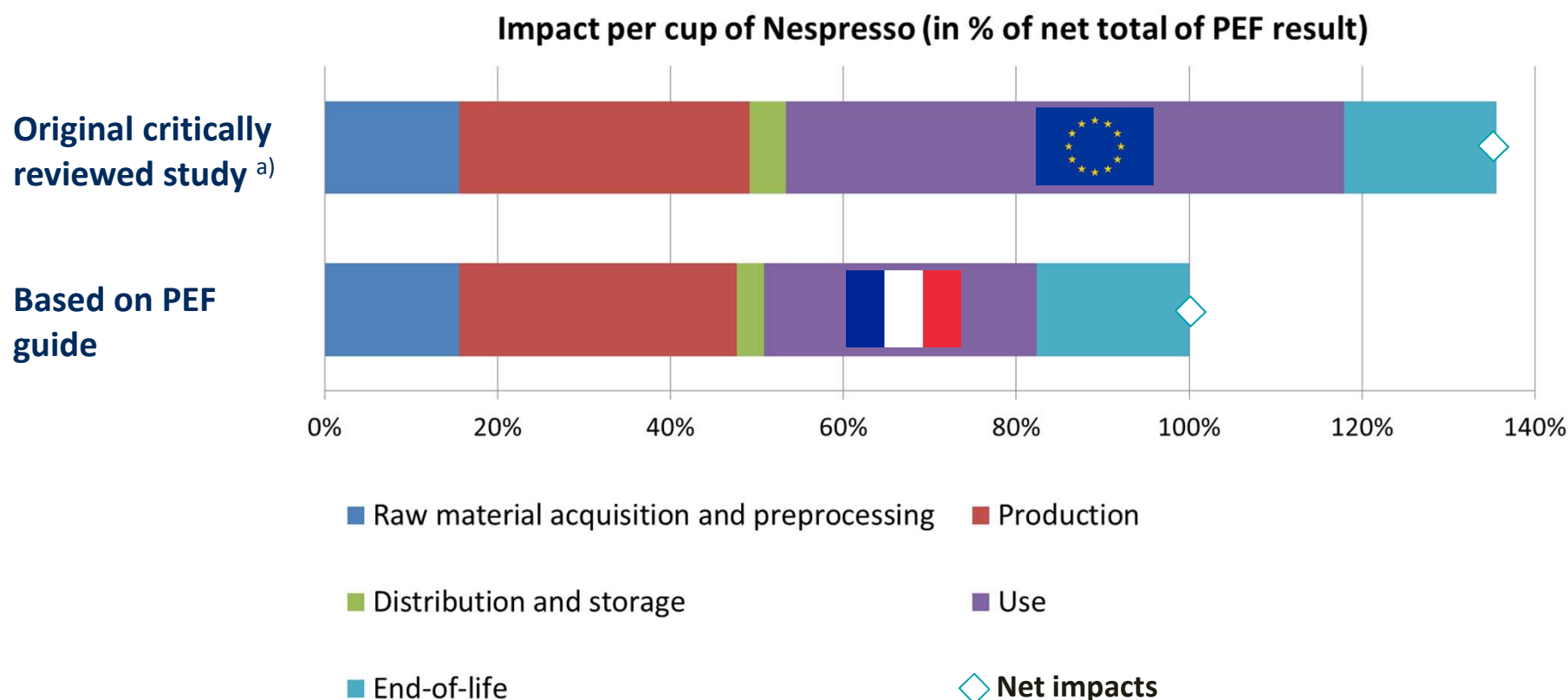
PEF compared to original LCA: climate change

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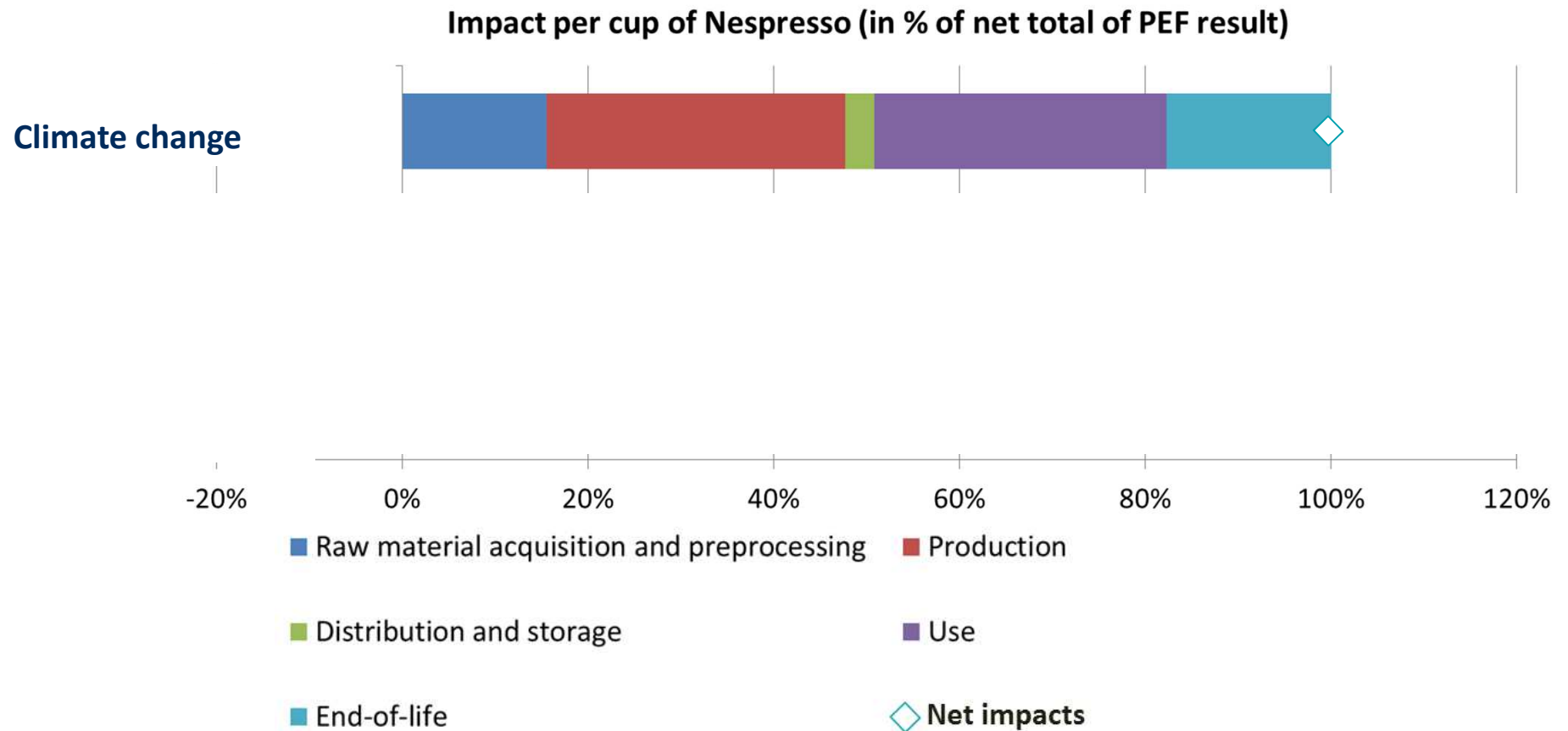


PEF compared to original LCA: climate change

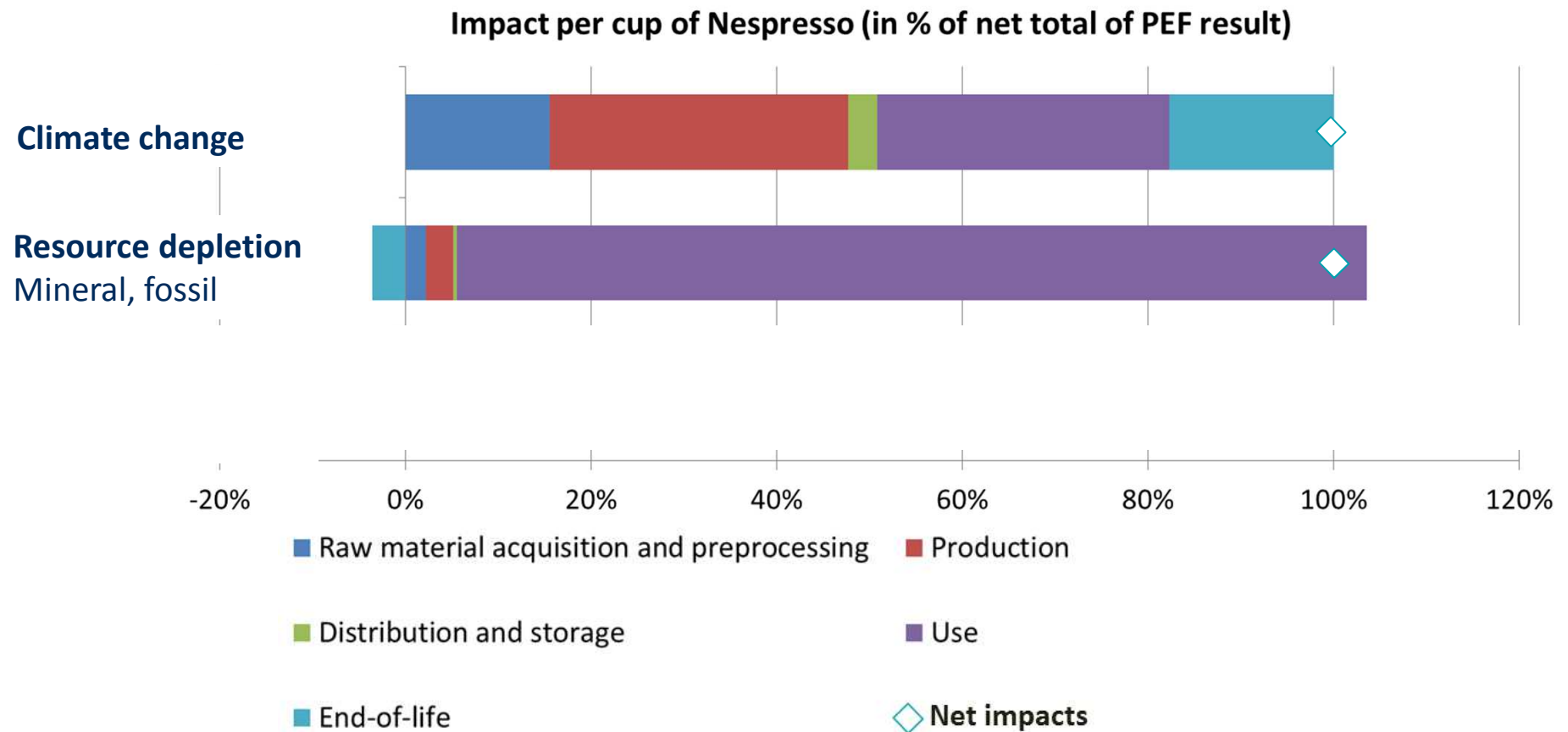


^{a)} Nestlé Nespresso, Quantis. 2011. Comparative full LCA of B2C cup of espresso using a packaging and distribution system from Nespresso Espresso and three generic products. Lausanne, Switzerland.

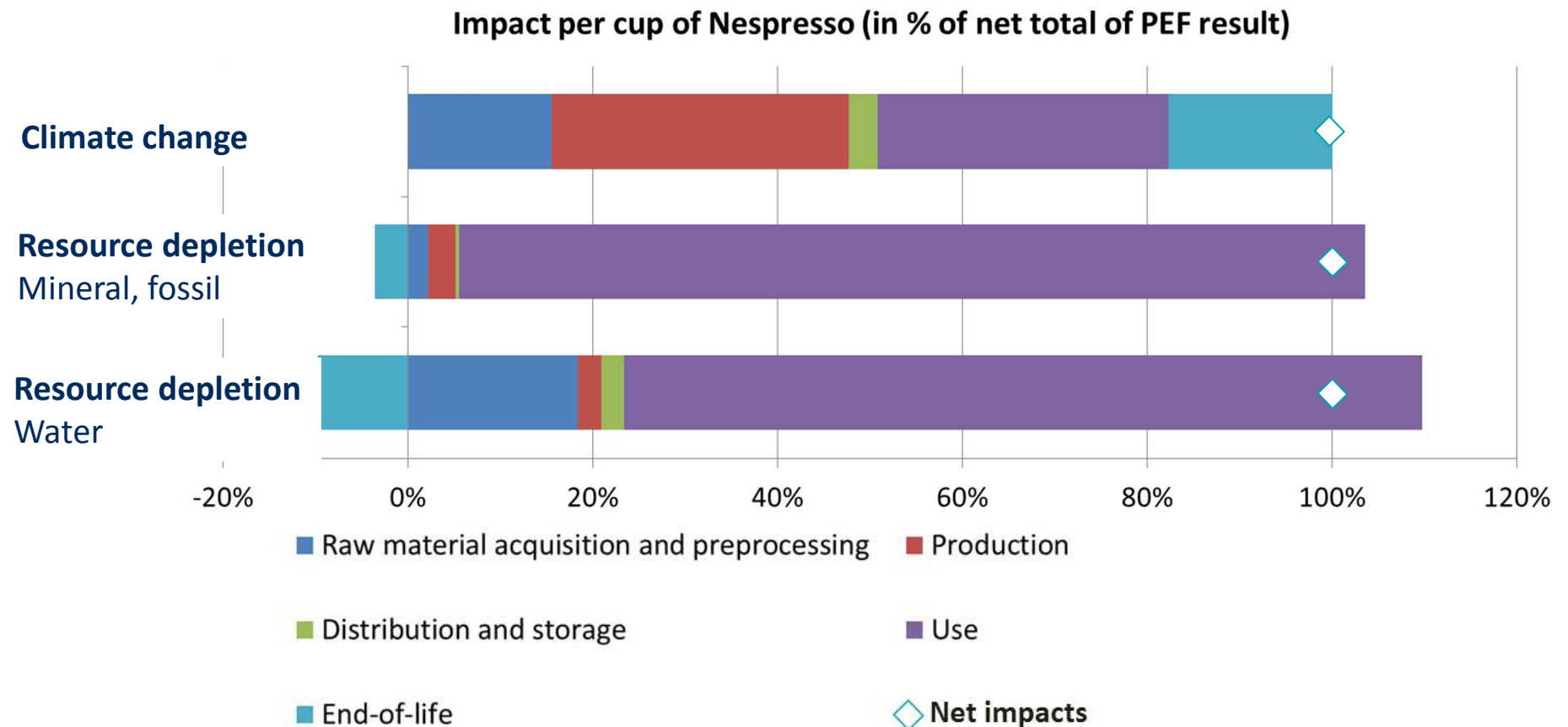
PEF results: climate change, mineral fossil and water resource depletion



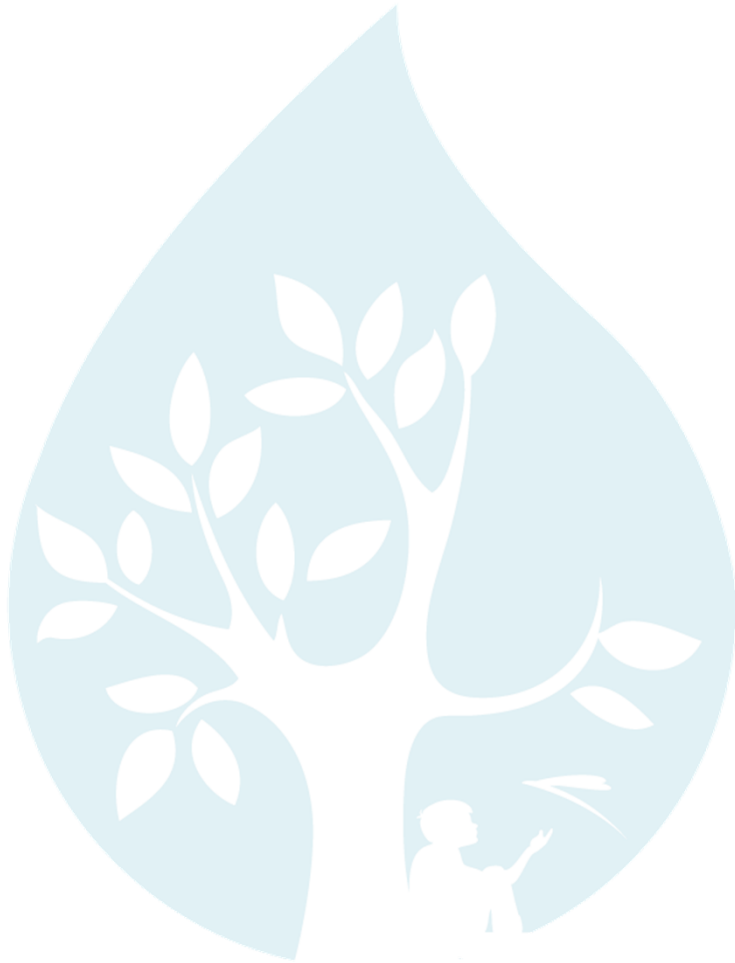
PEF results: climate change, mineral fossil and water resource depletion



PEF results: climate change, mineral fossil and water resource depletion



Conclusion



Main feedbacks

STRENGTHS



- **Multi-criteria**
- Impact categories based on internationally **accepted midpoints**
- Provides **clear guidance** on how to conduct an assessment
- **Regionalized** approach for water footprint

STILL TO IMPROVE



- ELCD **database** still in development
- Midpoint approach: **not for decision making** (no recommendation for endpoint)
- Regionalization feasible, but **time-consuming** in current LCA software
- Implementation of the recommended impact method in **LCA software** not “mature”

Positive push towards harmonisation of multi indicator LCA practices

Product Environmental Footprint (PEF) next steps

What?	When ?
Impact assessment of the different policy option	10-11/2012
Internal discussion among Commission services	11-12/2012
Formal adoption of the communication	03 /2013
Launch of a European pilot on PEF/OEF implementation	Summer 2013 ?
...	

Conclusion

- How does the PEF methodology translate in a **real-case scenario**?
 - Similar to a standard product LCA (resources, time, cost)
 - Useful to gain a comprehensive vision of the impacts
- What are the main **findings, recommendations and conclusions** that can be made from the exercise?
 - Necessity to have a coherent and practical database approach
 - Sectorial category rules and external critical review are necessary for comparative assessments

A teal speech bubble with a white border, containing the text "Contact us" in white sans-serif font. It is positioned above a large, stylized green and blue arrow that points towards the right.

Contact us

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