

Gefördert durch:

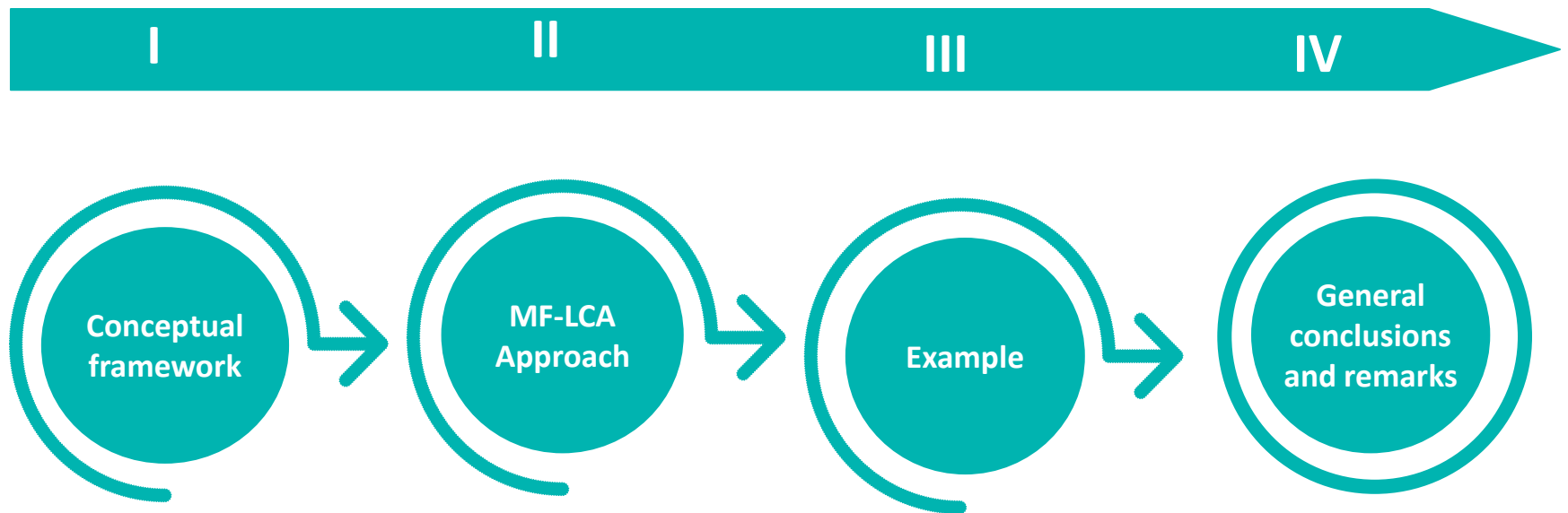


aufgrund eines Beschlusses
des Deutschen Bundestages

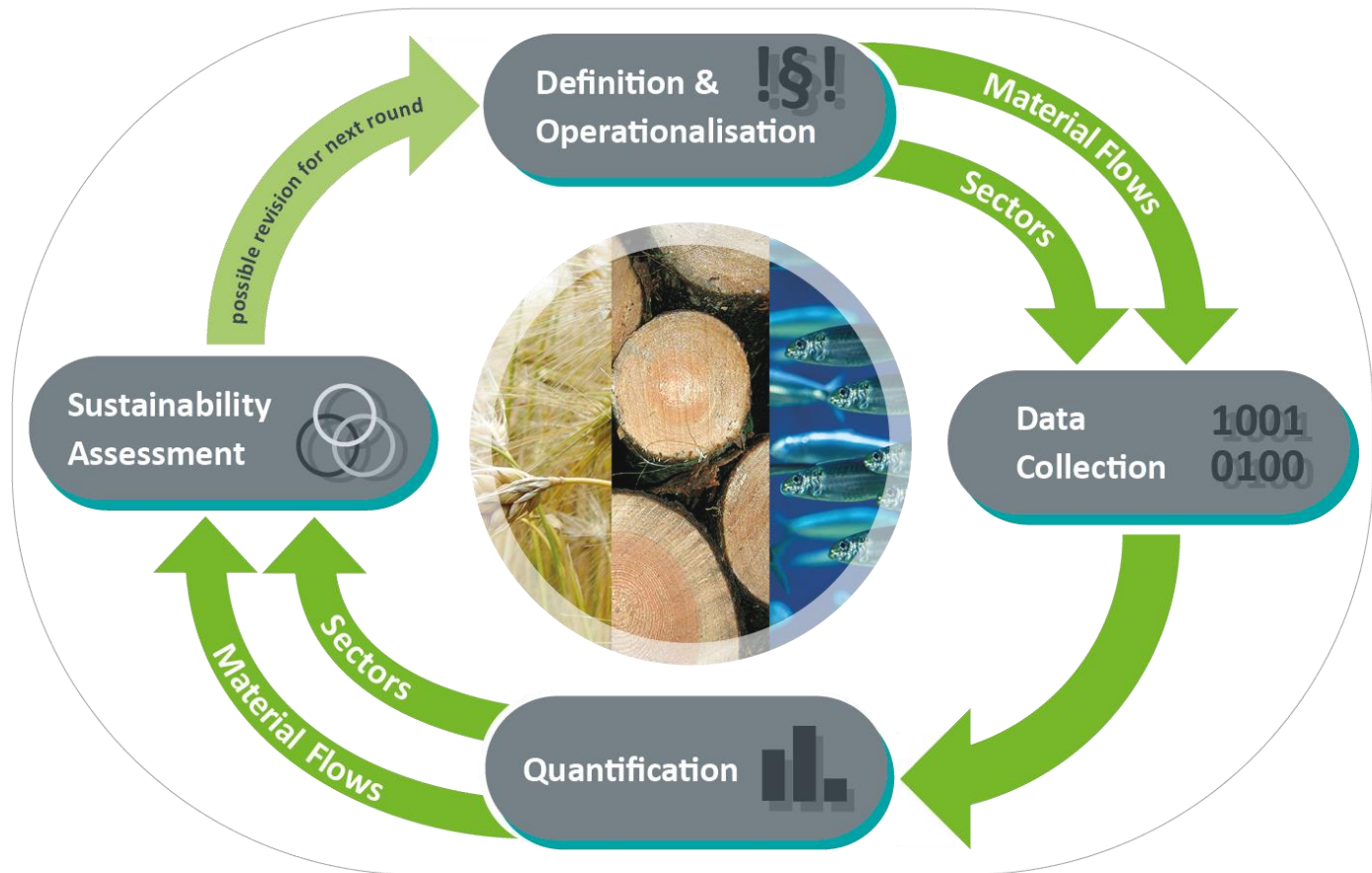
Towards monitoring and evaluation of a sustainable and circular forest-based bioeconomy: A MFA-LCA approach

Paola Pozo & Jörg Schweinle





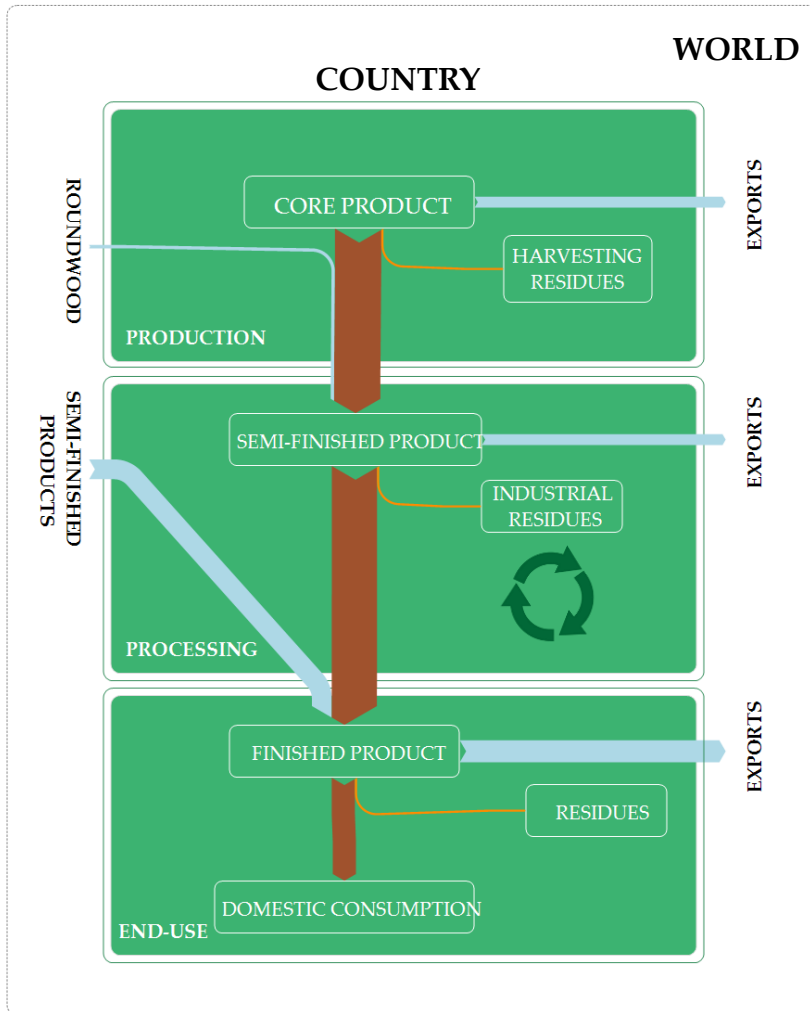
Quantifying bioeconomy



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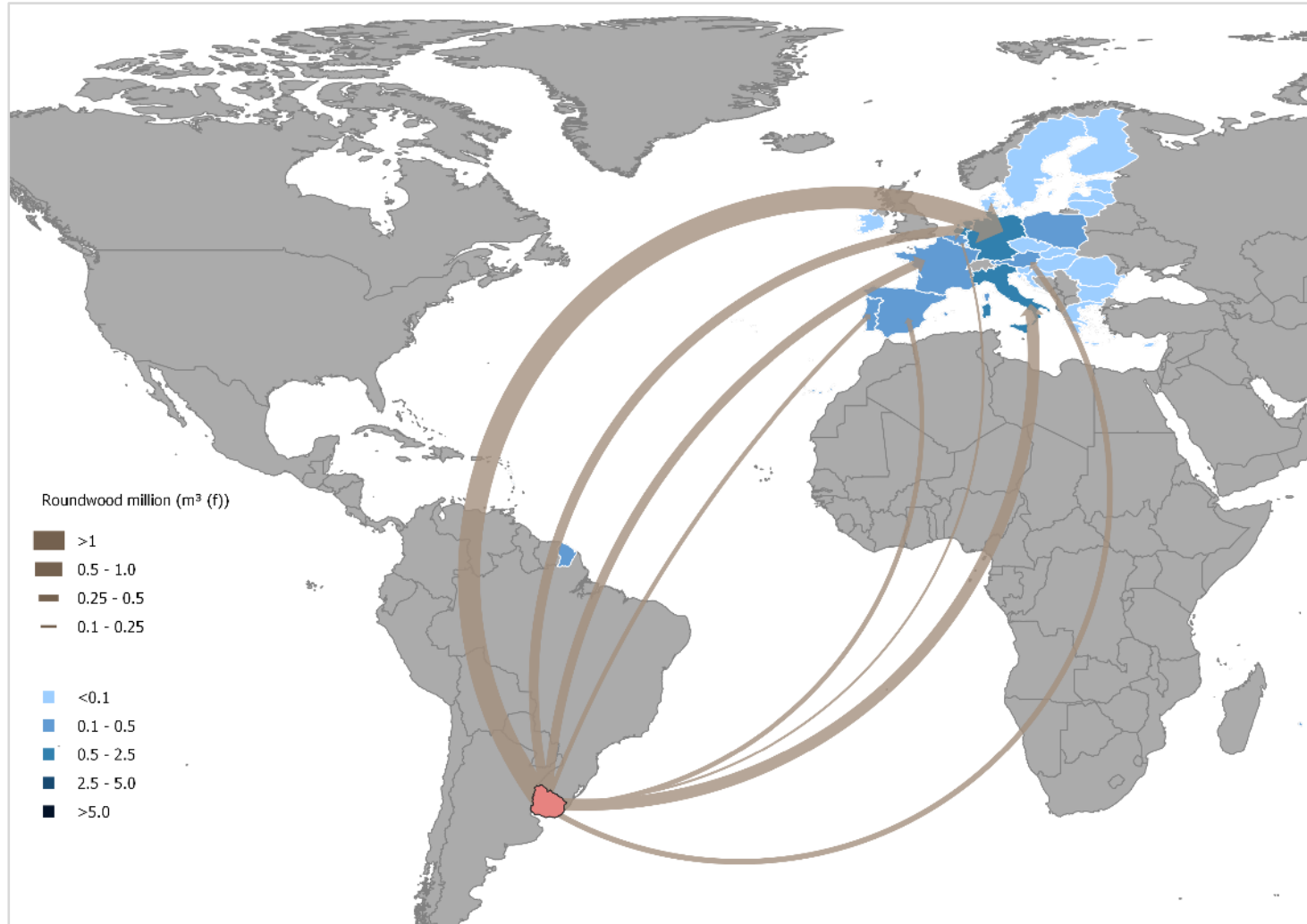
Source: Iost et al. (2020)

MFA-LCA approach

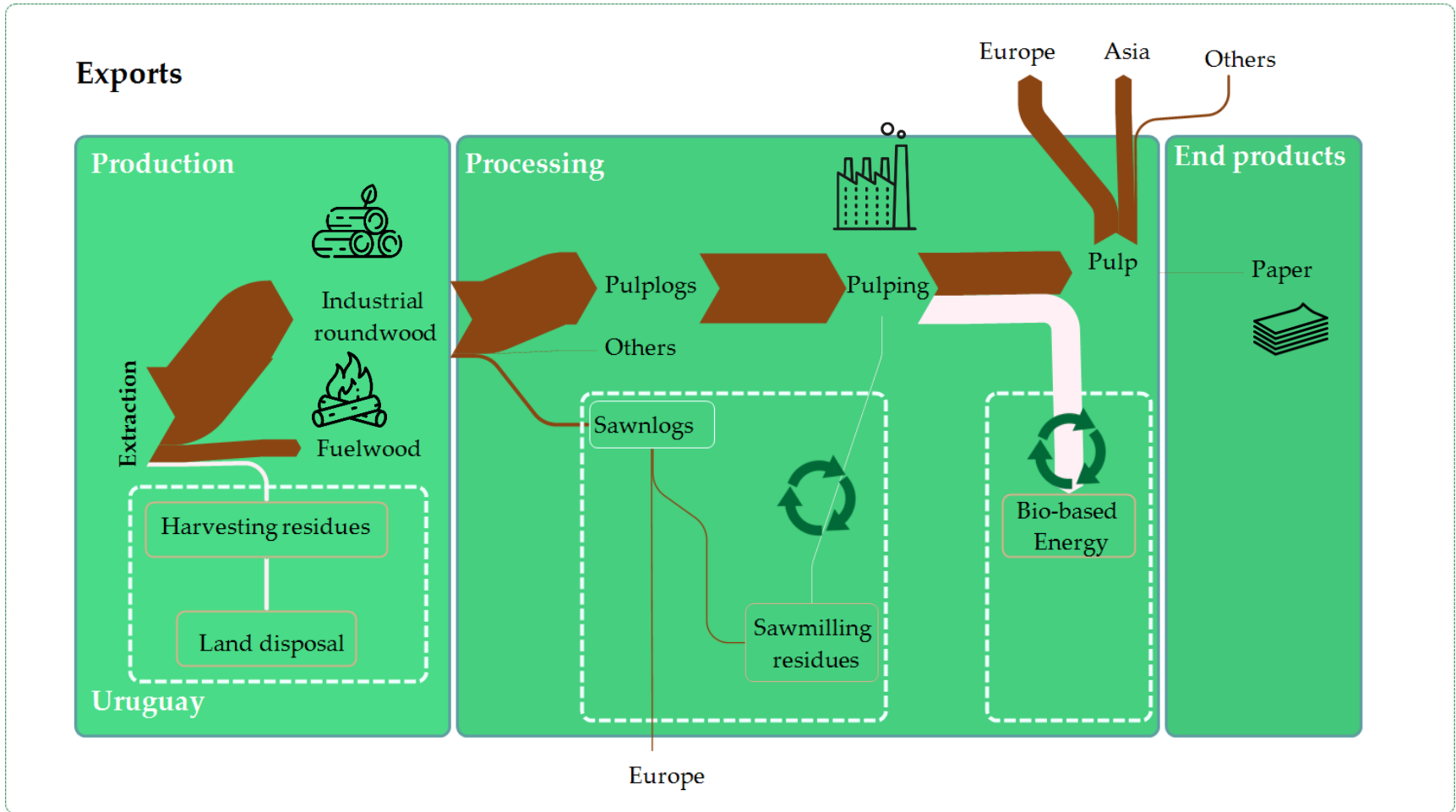


Source: Own elaboration based on United Nations and FAO (2021)

III) The Uruguayan forestry case



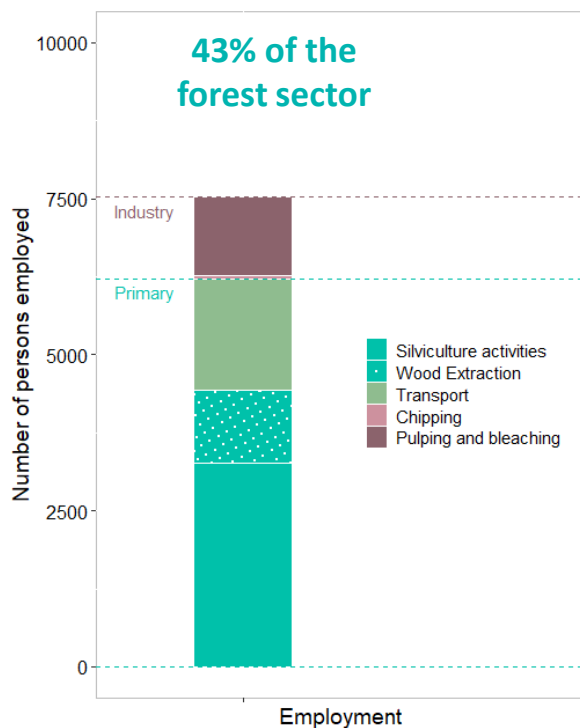
Eucalyptus pulp value chain



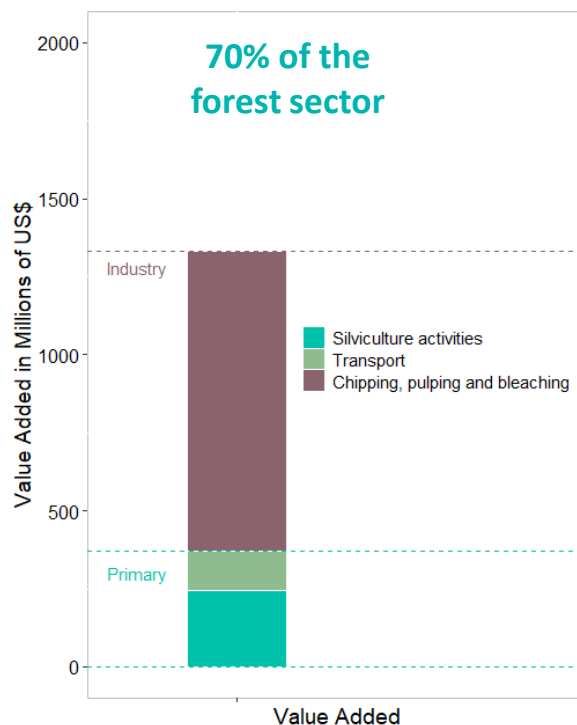
Source: Own elaboration based on DGF 2021, Latu 2021, MIEM 2021, Pozo et al. 2022, Bösch et al. (in rev.), icons flaticon.com

III) Which sustainability impacts are associated?

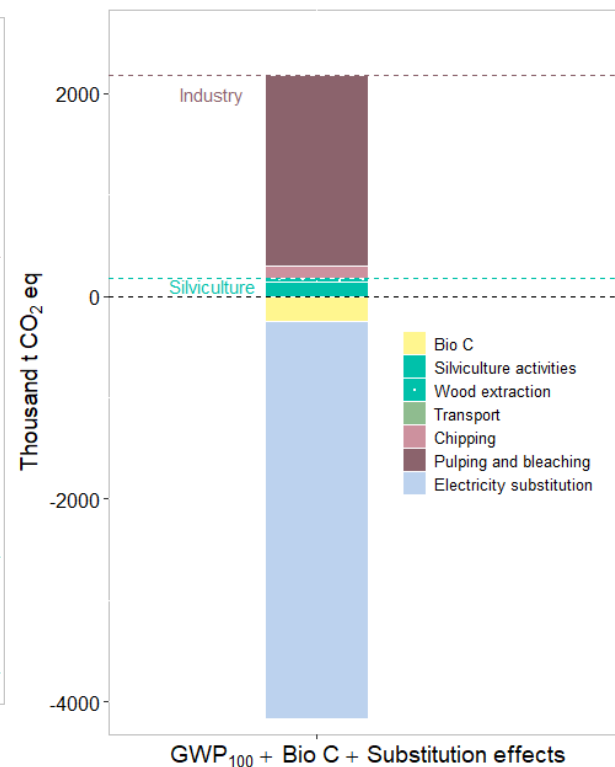
Employment



Value added



GWP₁₀₀



Source: Own calculations based on DGF, BPS, Exante, MIEM, Schulte et al. 2021, Pozo et al. 2022

V) Conclusions and remarks

Bioeconomy implies trade-offs and opportunities, to track the progress a monitoring system is a pre-requisite

The MFA allows the quantification with a high level of detail

Data challenges: disaggregation, time series, gaps specially on environmental data

Assessing bioeconomy requires an holistic approach (i.e environmental and social impacts) including impacts on distant ecosystems.

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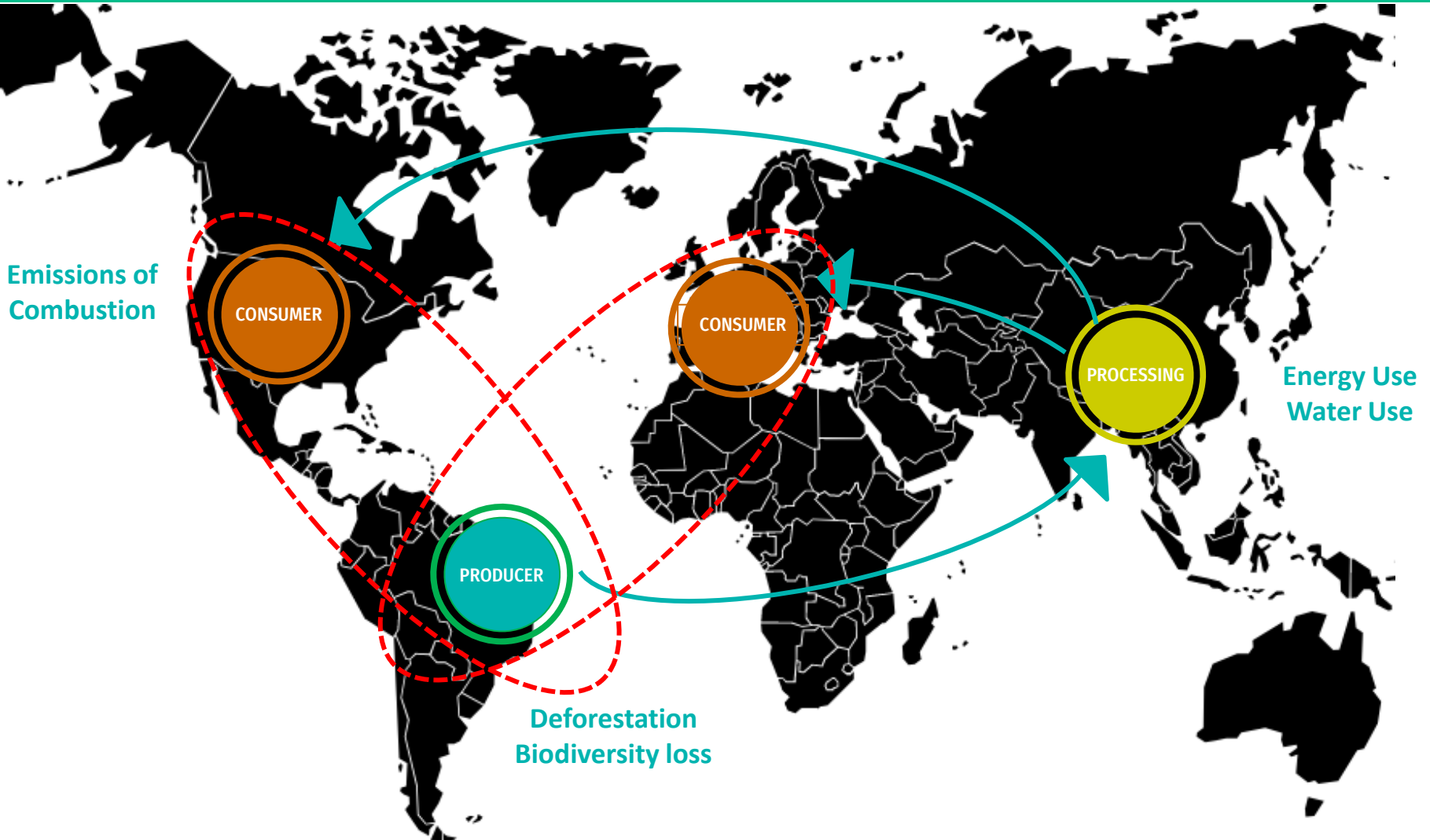
Thank you!

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<https://www.thuenen.de/de/institutsuebergreifende-projekte/biooekonomie-monitoring/biooekonomie-monitoring-ii>

Where the biomass comes from?

What are the sustainability impacts associated?



EU paper consumption

