Evaluation of Long-Term Impacts in Life Cycle Assessment

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Goal and Overview:
Time aspects covered
in the morning presentations

22nd LCA Forum
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ETH Züri ch

Goal of this LCA Forum

- Full picture of time aspects in both
 LCI and LCIA
- Discussion on pros and cons of a temporally differentiated weighting
- Input to LCIA method development

Time within the product system

 Industrial processes were required in the past and will be required in the future:

No presentation

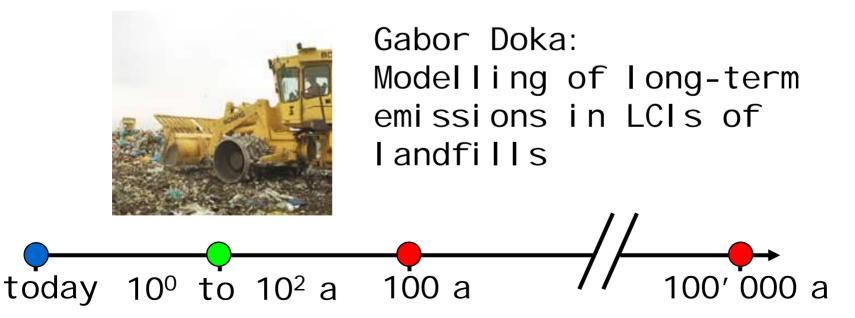




 $-10^2 \text{ to } -10^0 \text{ a}$ today $10^0 \text{ to } 10^2 \text{ a}$

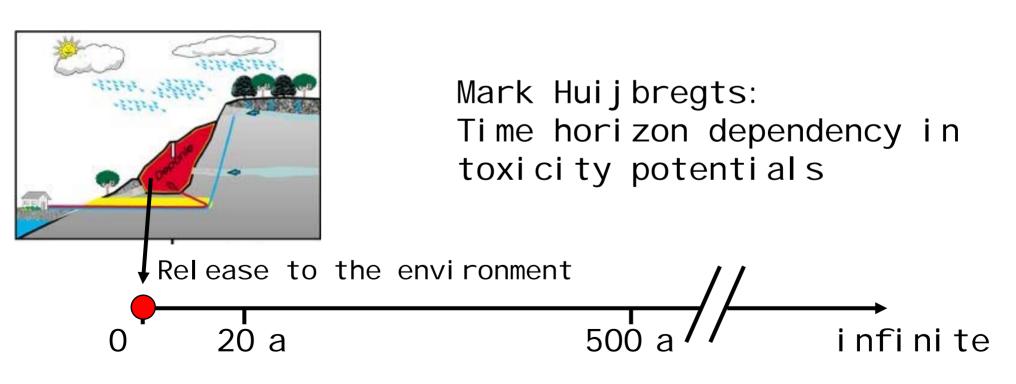
Time within processes

 Industrial processes may emit a long time after they were required:



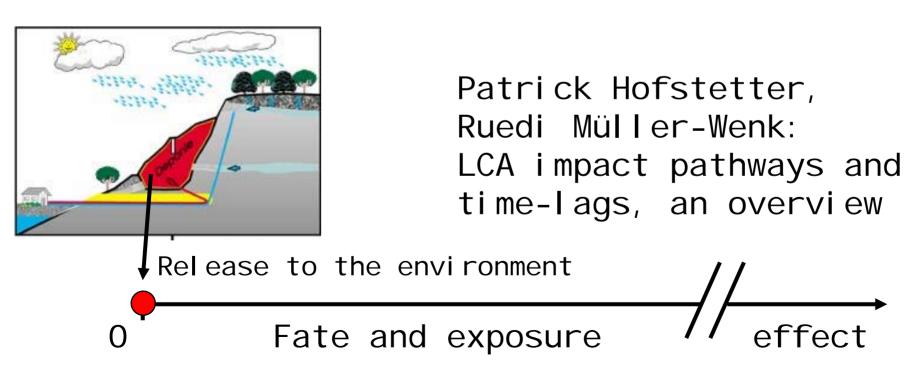
Time aspects in impact potential assessment

 Impact potential of an emitted substance may vary with the time horizon considered:



Time aspects in impact pathways

 Time-lags in fate and exposure, effect and damage of an emitted substance:



Temporally differenciated weighting

Stefanie Hellweg: Discounting in LCA

Anton Leist:
Assessment of long-term
damages to the environment:
ethical questions

