TECHNISCHE UNIVERSITÄT WIEN

A new indicator for assessing and communicating sink constraints

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Joint Research

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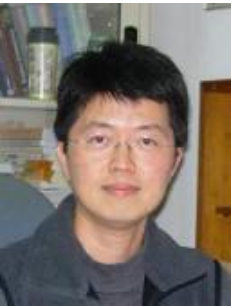
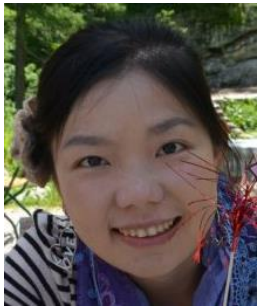
Institute for Water Quality, Resources and Waste Management

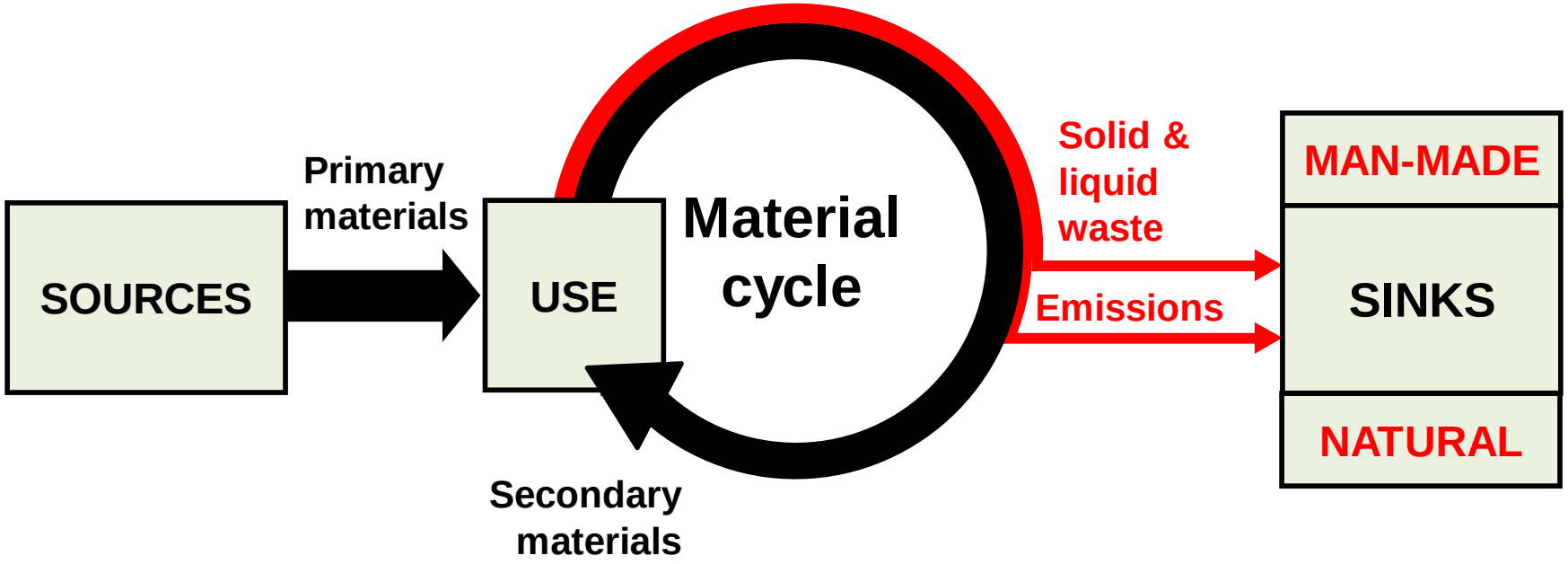






Motivation

Sinks are limited!

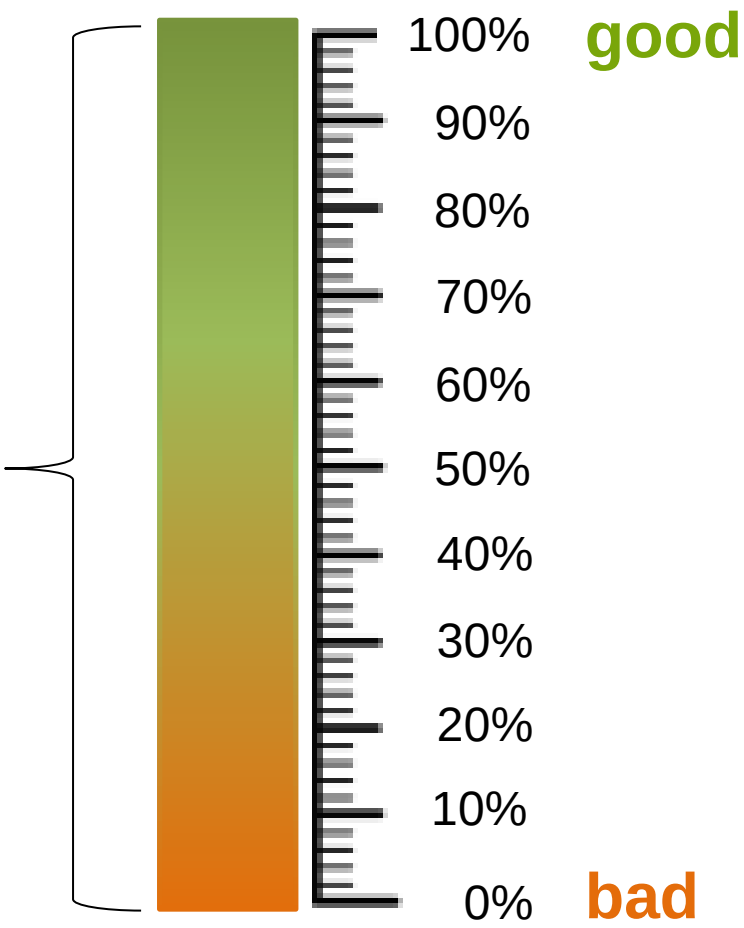


Key question

How to
assess & communicate
sink constraints?

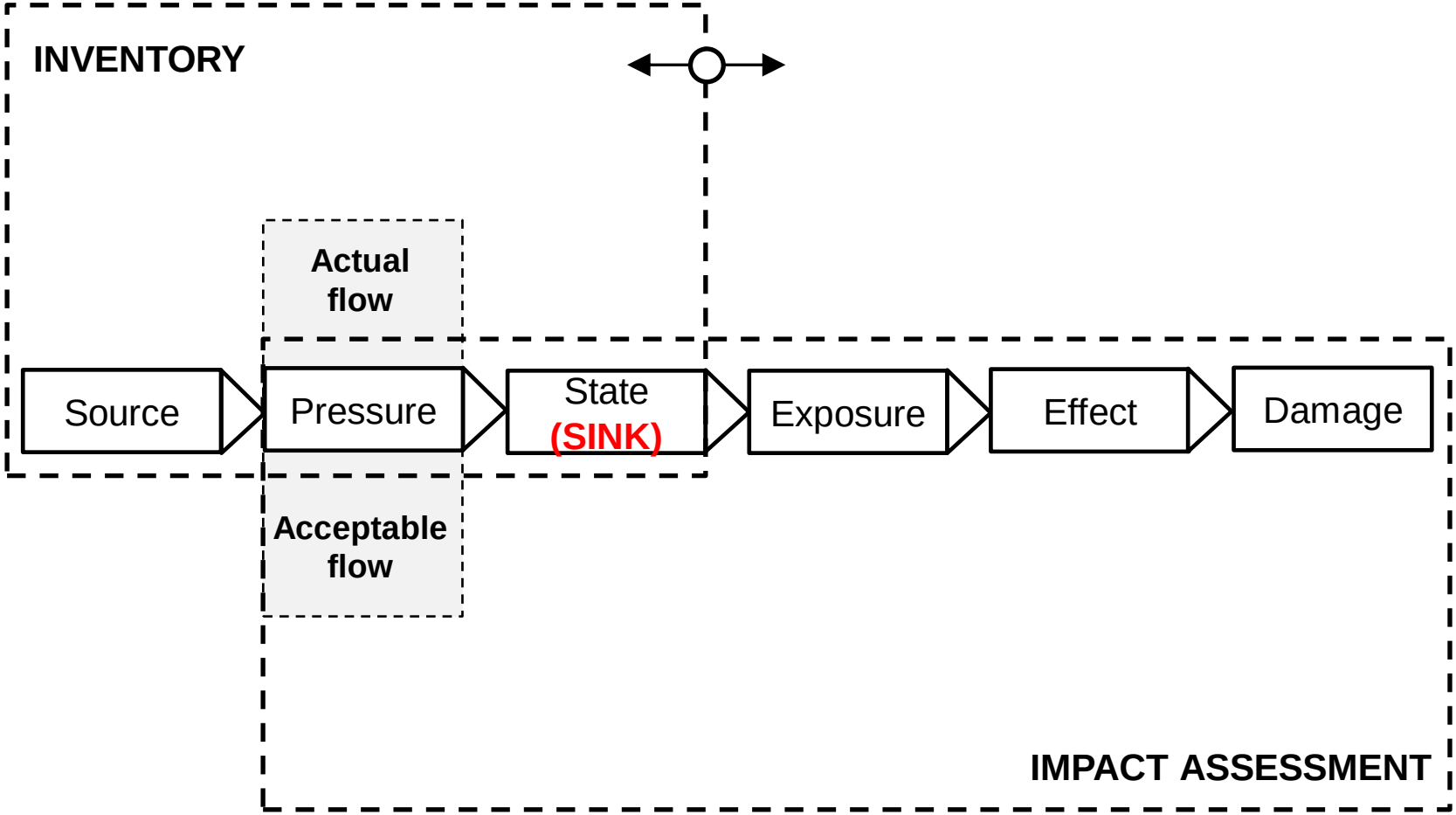
A new indicator

$$\lambda = \frac{\textbf{Acceptable flows}}{\textbf{Actual flows}} * \mathbf{100}$$



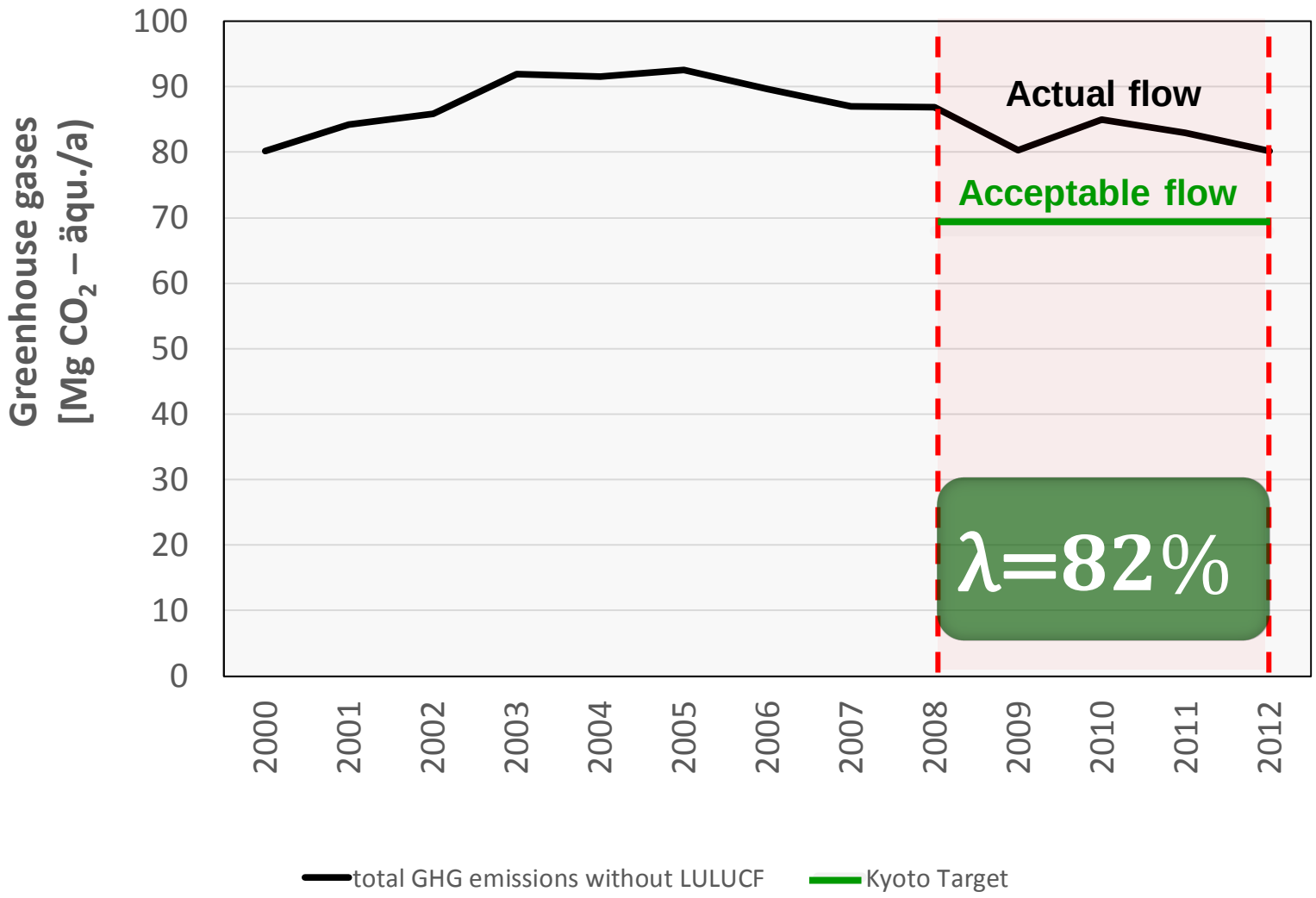
Kral, U., P. H. Brunner, P.-C. Chen, et al. 2014. Sinks as limited resources? A new indicator for evaluating anthropogenic material flows. Ecological Indicators 46(0): 596-609.

Framework

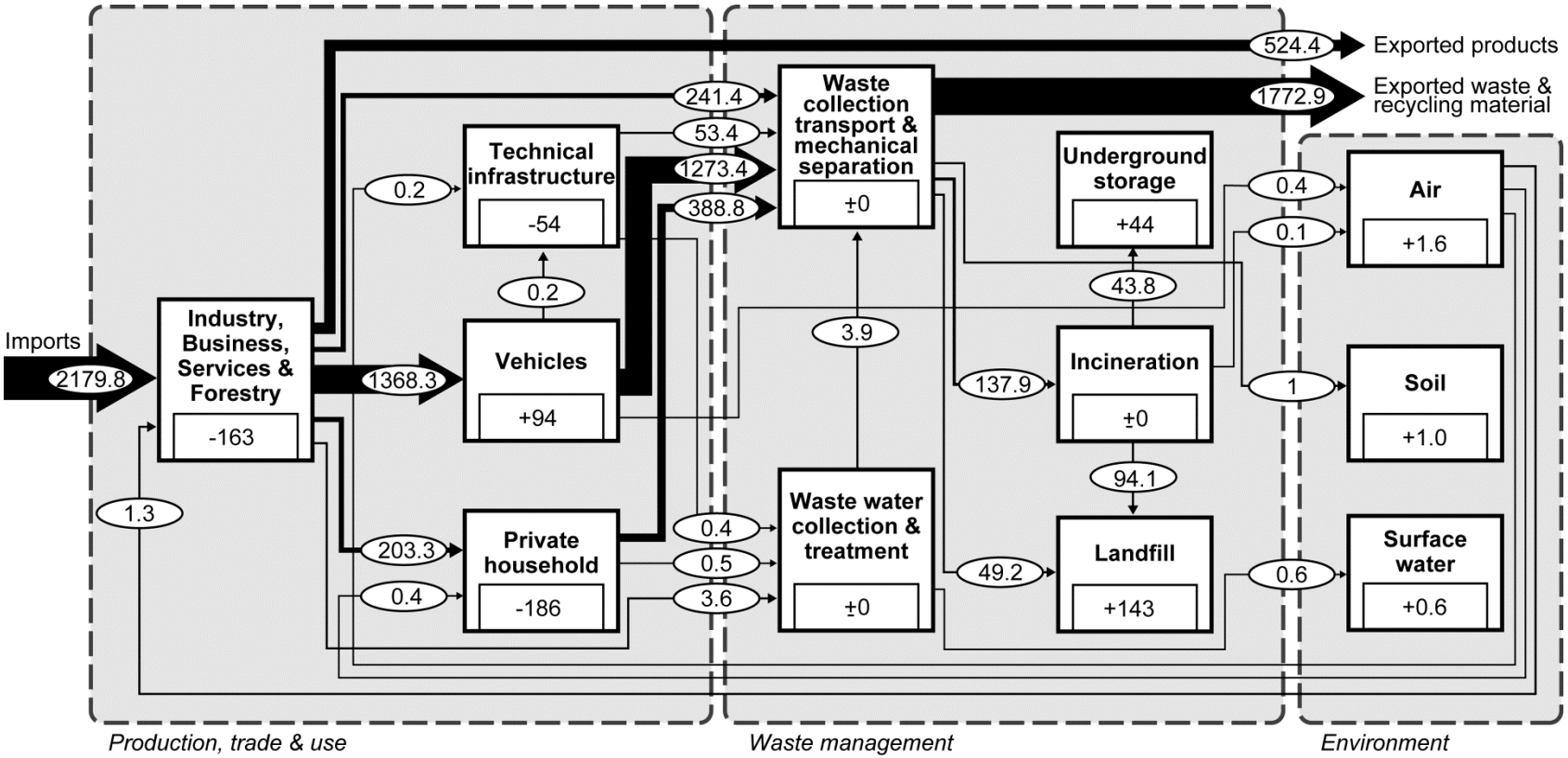

INVENTORY
Actual flow
Source
Pressure
State
(SINK)
Exposure
Effect
Damage
Acceptable flow
IMPACT ASSESSMENT

Case studies

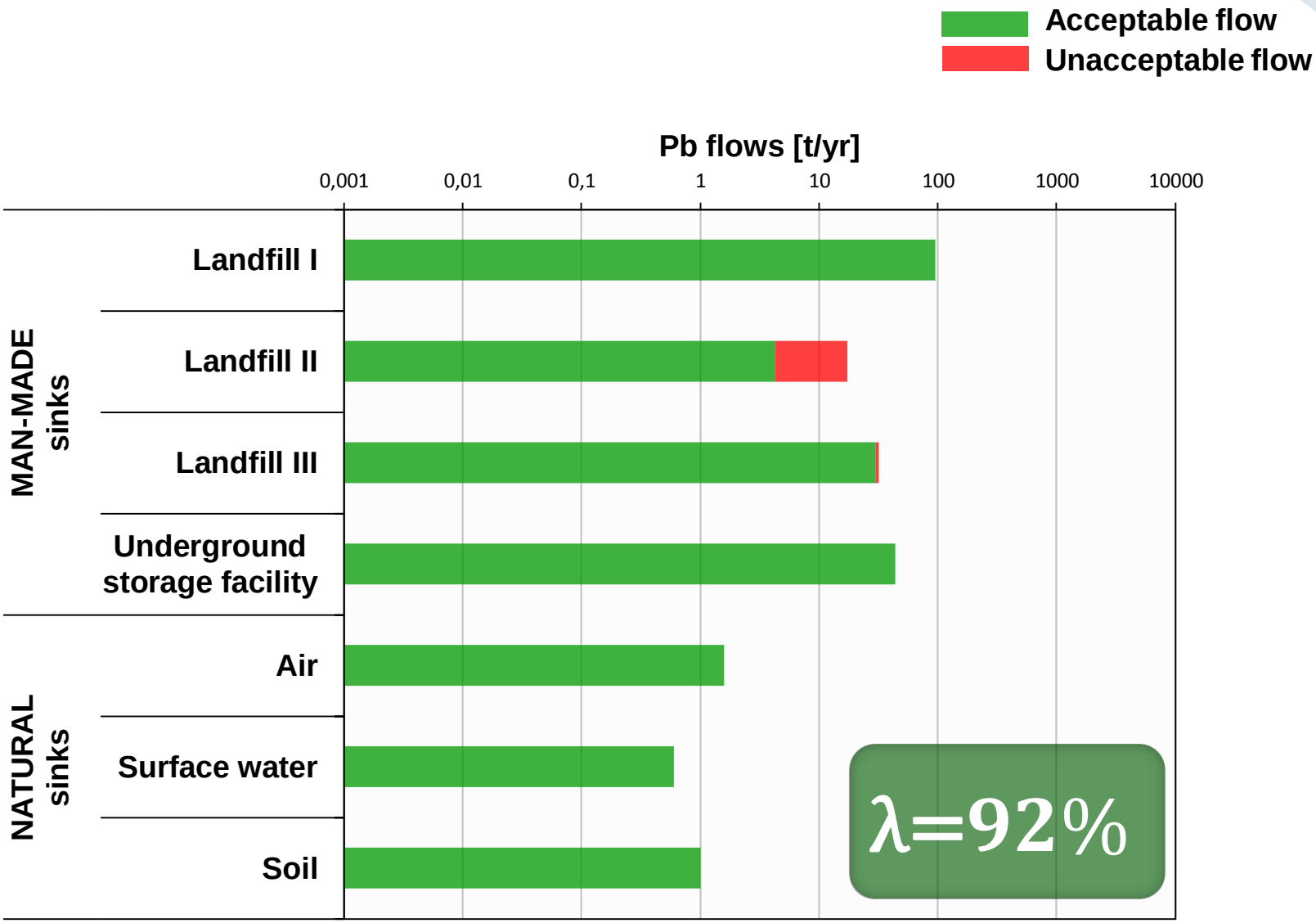
Greenhouse gases in Austria



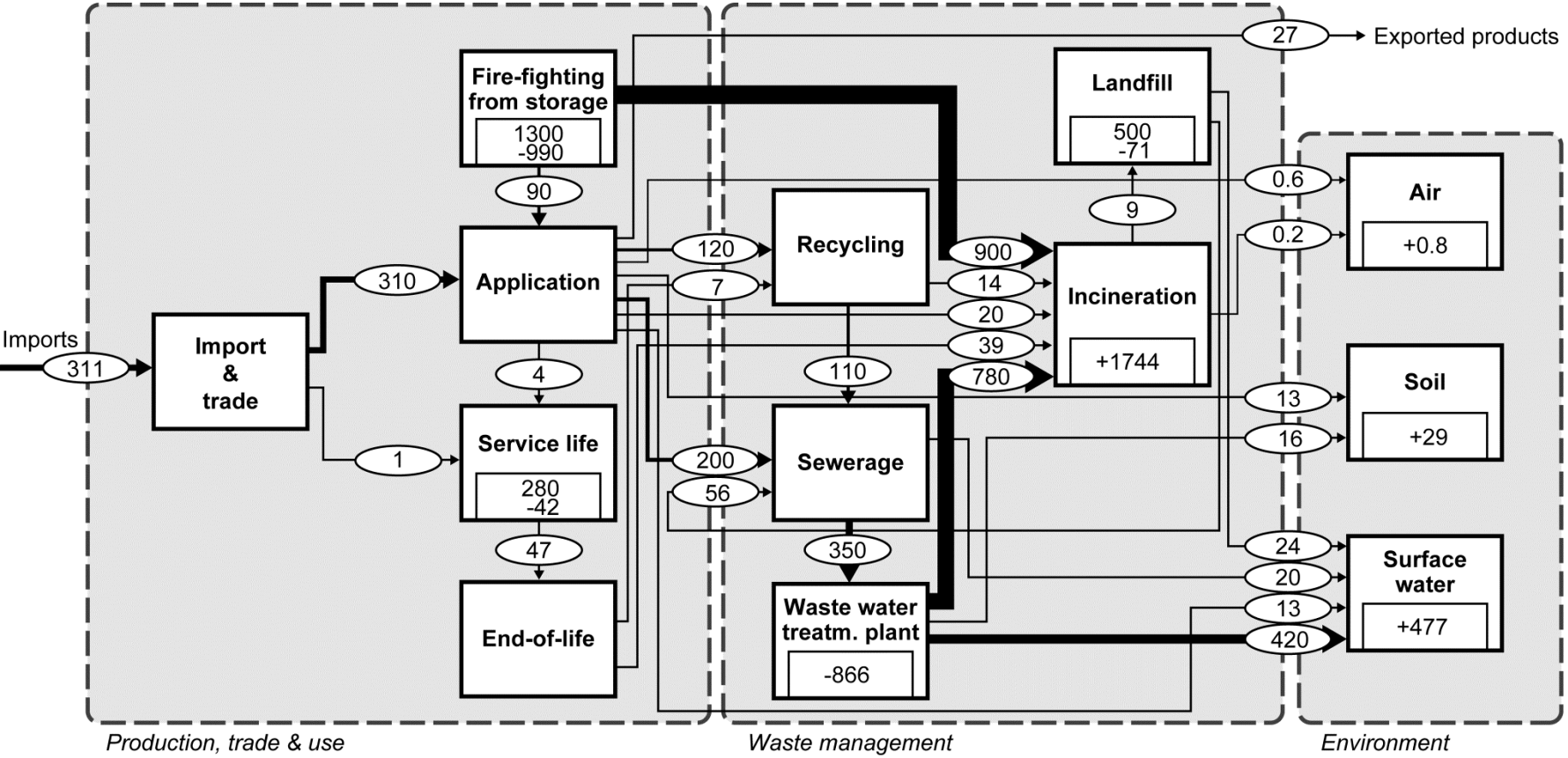
Lead in Vienna: Inventory



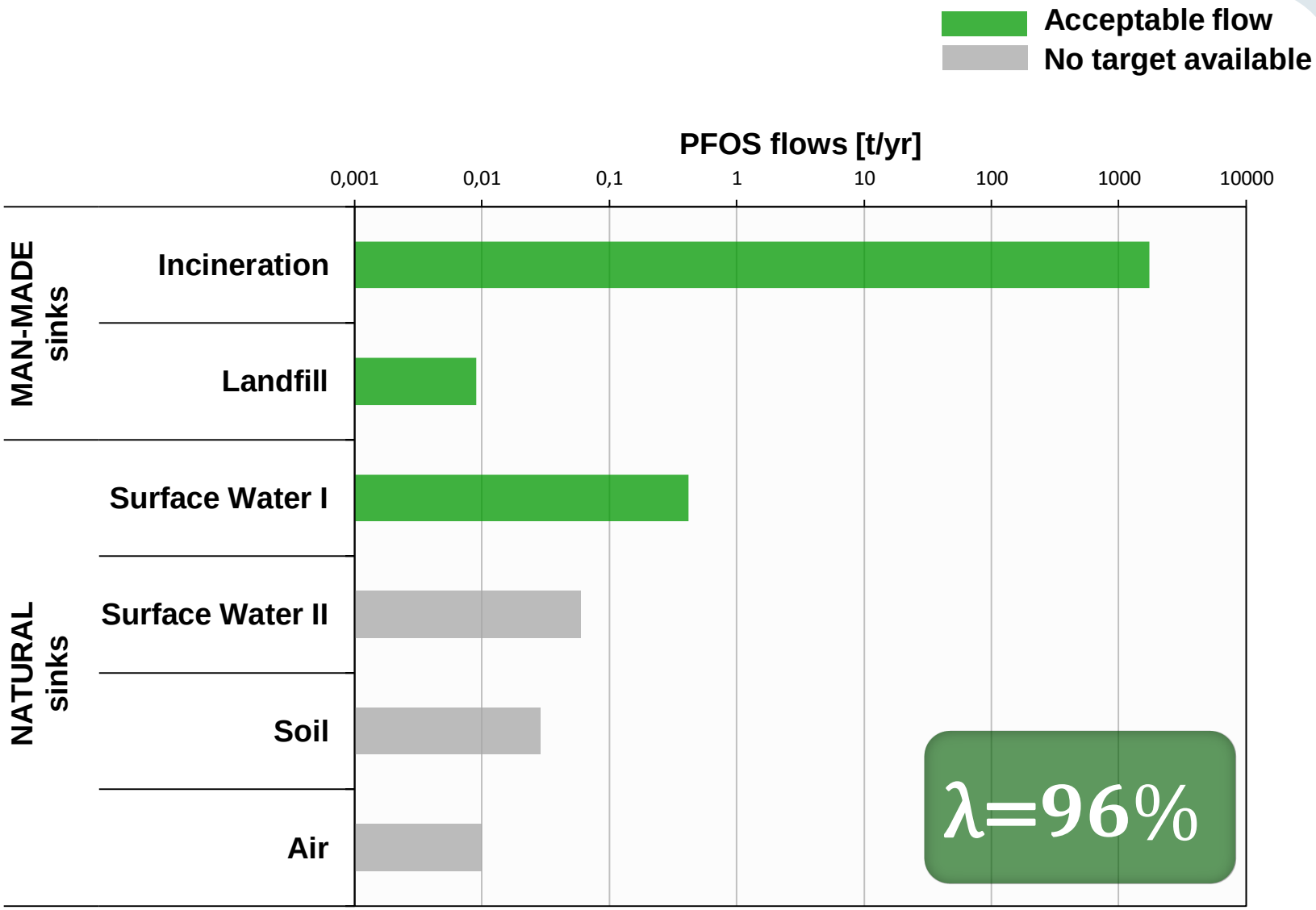
Lead in Vienna: Impact assessment



PFOS in Switzerland: Inventory



PFOS in Switzerland: Impact assessment



Conclusions

Sinks are provided

…by environment and waste management sector.

The indicator quantifies

...environmentally acceptable share of material flows to sinks.

The indicator can be used

…for policy performance evaluation.

…for regional benchmarks.

…to communicate results to relevant stakeholders.

THANKS

Article

Kral, U., P. H. Brunner, P. C. Chen, et al. 2014.
Sinks as limited resources? A new indicator for evaluating anthropogenic material flows.
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