



Swiss Centre for Life Cycle Inventories

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Key points to develop LCA databases

Presentation to the AVNIR conference, Lille, 2012.11.06



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Key points

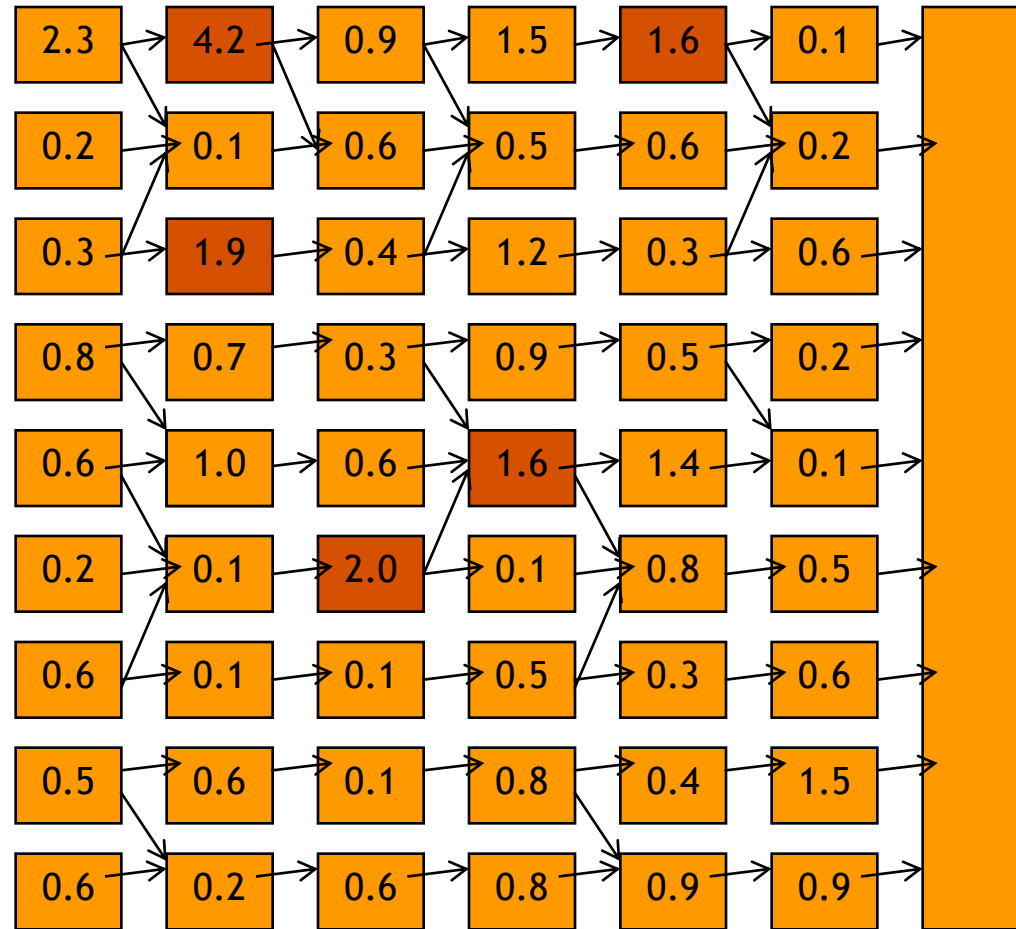
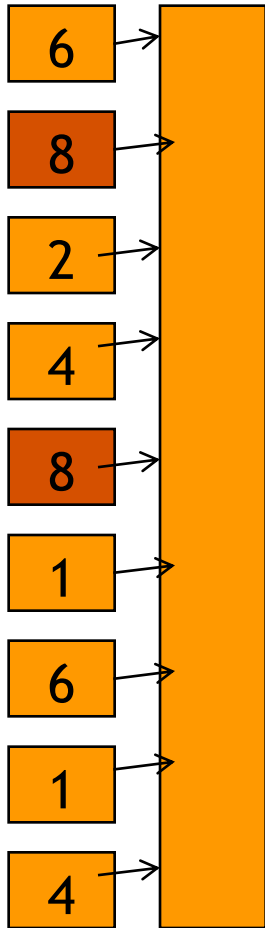
- Transparency at unit process level
- Flexibility for modelling choices
- Global scope
- Completeness
- Up-to-date
- A joint effort



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Transparency



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Transparency

- Openness to scientific scrutiny and dialogue
- Documentation and quality of documentation
- Unit process level: validation, mass balances, peer review
- Accessibility: All ecoinvent unit process data and documentation freely accessible via the Internet
- Ecoinvent v3: Making modeling of markets and technology constraints an area for scientific dialogue

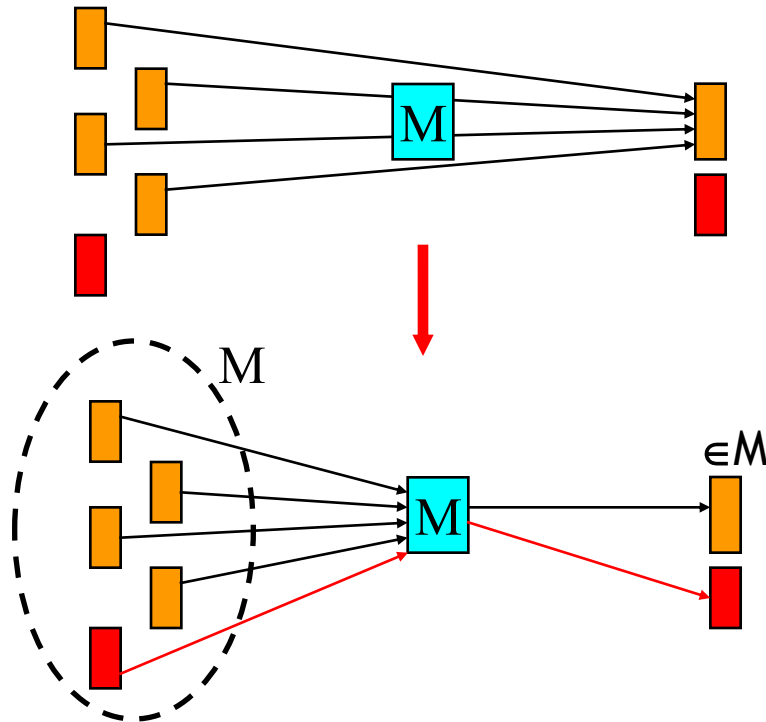


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Flexibility for modeling choices:

Consistent introduction of markets (consumption mixes) for all products



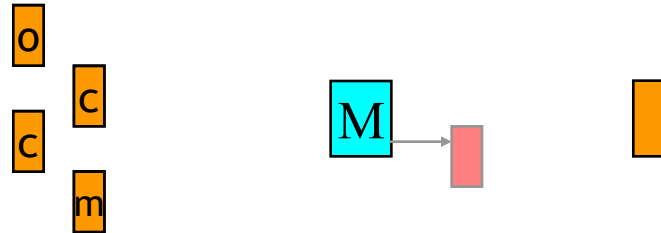
Unlinked datasets with
product markets

Datasets linked,
based on geographical
location

- New datasets **automatically** linked to their suppliers and market

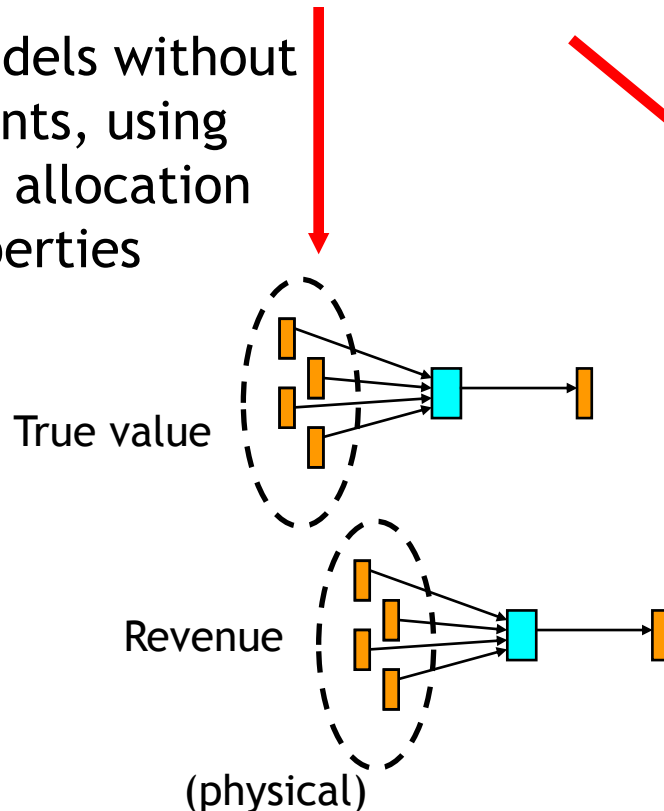
Simple: One unlinked system

Flexible: Many derived models

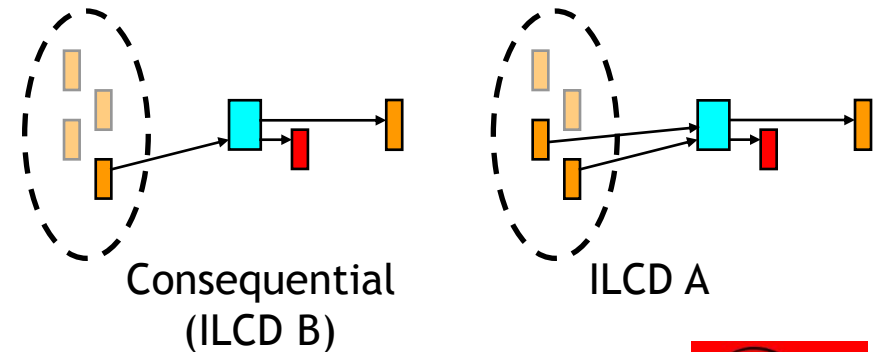


One simple, unlinked
system of datasets

Several models without
constraints, using
different allocation
properties

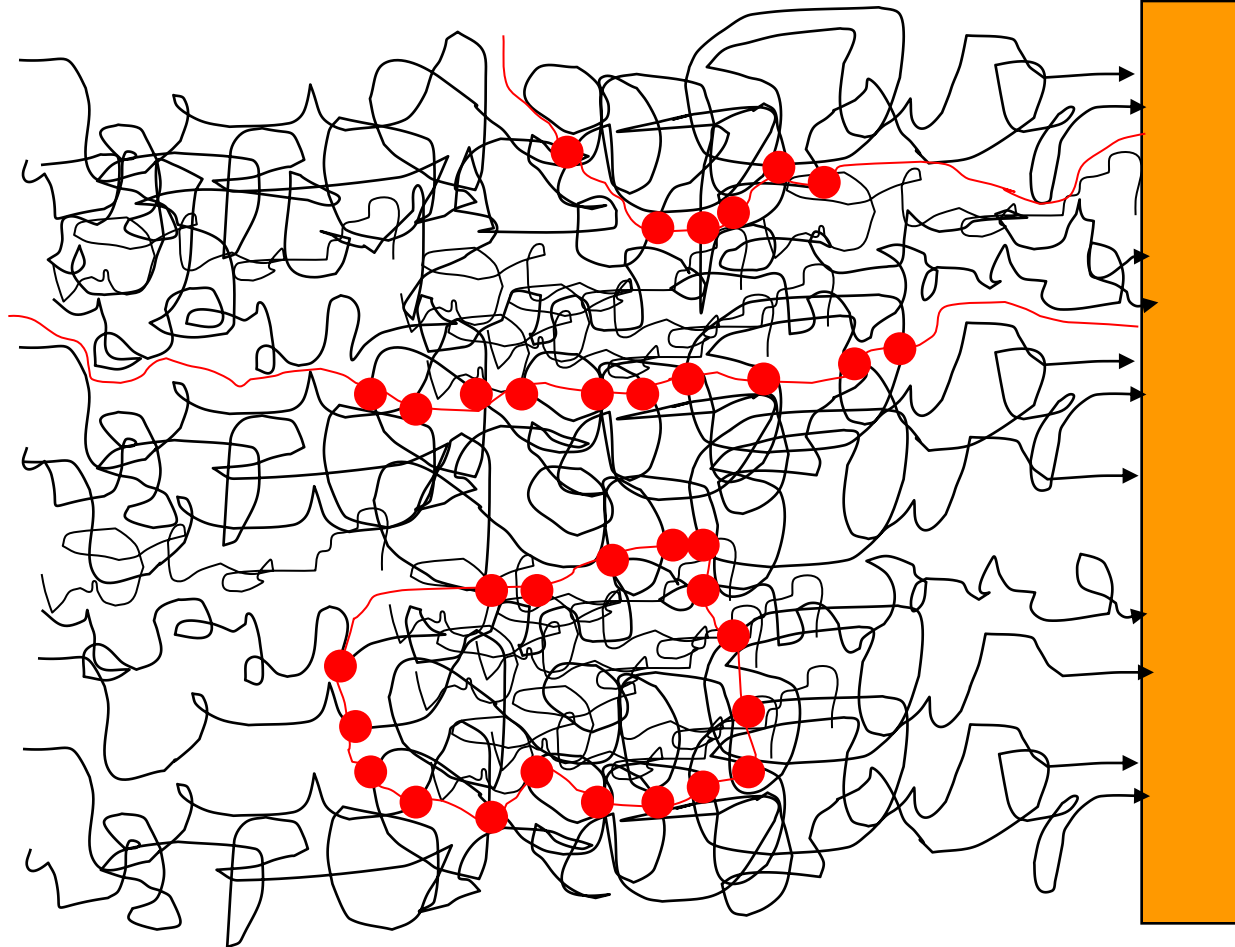


Several models with
different constraints,
using substitution



Trust in Transparency!

Global scope



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Completeness - economy-wide



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- Bottom-up databases typically give incomplete results. Leaving out 50% of the totals is not uncommon
- Economy-wide coverage: No overlaps, no double-counting, no cut-offs → Results are always complete
- Aggregation error must be expressed in the uncertainty
- Continuously more detailed through disaggregation → New datasets are immediately placed - and linked - into the right context, without requirements on the data provider to provide links

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Completeness - physical, economical, social

- Combined physical and economical linking to reflect causalities: Example: waste treatment as a physical removal and an economic service
- Biophysical, social, and economic exchanges and impact categories
- Ensuring consistency across datasets
 - Temporarily including “unknown activities”?



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Up-to-date data



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- Continuous effort: A viable business model is required
- A joint effort is required. No single company or public authority can build this alone
- Reduce effort for individual data providers
- Increasing central addition and editing of data to ensure consistency
- **Let us join forces:** We do not need more than one global, transparent database
 - Like Wikipedia: Not a formal monopoly - but effectively being one, as a consequence of our authority

