A joint initiative of the ETH domain and Swiss Federal Offices

Swiss Centre for Life Cycle Inventories
Overview of new data in v3

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Introduction

ecoinvent v2.2

Various
- bio fuels
- renewable resources
- air conditioning
- CHP plants

PSI
- heat & electricity production
- transports

ESU-services
- heat & electricity production
- chemicals
- metals
- metal treatment

ecoinvent database

Emapa
- metals
- construction mat
- wood
- paper & board
- plastics
- chemicals
- detergents
- electronics

ETHZ
- chemicals
- bio fuels

Doka
- waste treatment

ART
- agriculture

ecoinvent v3
List of contents

1. Mayor data collection projects
   - water
   - electricity
   - others

2. Central data collection & updates

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Slide 4
Water data updates

- based on the Water Database project of Quantis Intl
- Update of water exchanges for database ecoinvent v2
Electricity data

- Extension and update of country electricity mixes (PSI, 90% coverage)
- National specific production technologies
- Regional Canadian data (CIRAIG, more details from P. Lesage)
Chemicals

- About 80 new basic chemicals

Example:

p-nitrophenol
Personal transport

- established by Empa & PSI; funded by Swiss Competence Center Energy and Mobility (CCEM)
- ICE (petrol, diesel, natural gas) and electric
- Different sizes and EURO classes
Data collection – further examples

- **Agriculture/biofuels** *(check presentation from T. Nemecek)*
- **Cement and clinker** – 12 cement types
- **Aluminium** (primary, hydroxide)

And more…
central data updates for v3

- global average datasets for all local processes
- dry mass, wet mass and carbon content (for all intermediate exchanges and elementary flows).
- price and production volumes (where relevant; for linking via markets and application of system models)
central data updates for v3

- **Cut-off approach** is not applied anymore!

![Diagram](image)

- 3 ways for dealing with added by-products / wastes
  - Treatment activity
  - Alternative production route
  - Constrained market
Summary & Conclusions

- v3 builds on the prior ecoinvent version, providing database-wide data updates (e.g., water database)
- Extensive data collection efforts on key sectors (e.g., electricity, transport, chemicals, agriculture/biofuels)
- Important central data collection tasks
- Smaller-scale projects
Thank you

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