Update of LCIA methods and format

Agroscope
EMPA
EPFL
ETH
PSI

ecoinvent v3 users meeting

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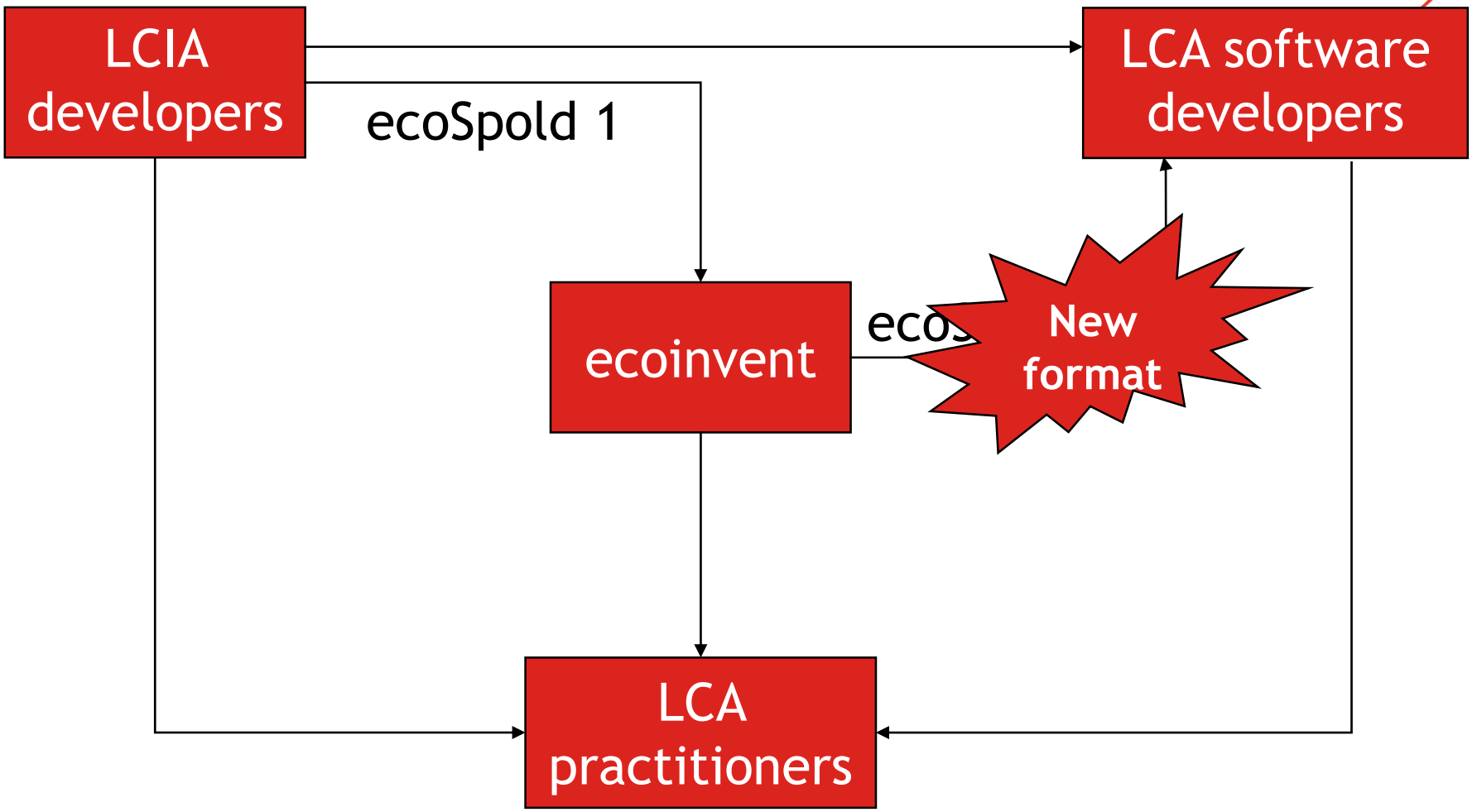
ecoinvent Centre

Overview

- Information flow
- New features
- Interaction with the new format
- Two new methods implemented

Information flow



New features

- New format based on ecoSpold2:
  - ecoSpold2 includes all the features of ecoSpold1
  - Reference to UUID of elementary exchanges
  - Synonyms
  - Comment and source for each CF
  - Uncertainty, with comments
  - Regionalised impact assessment
  - Parameters and mathematical relationships

New features

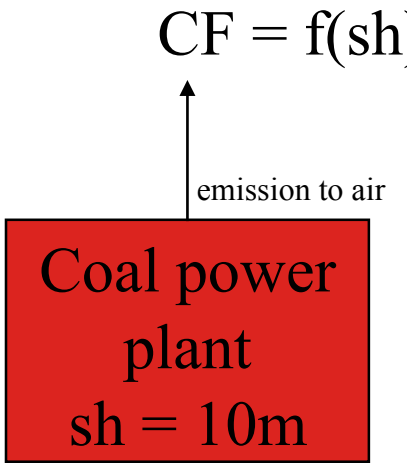
- Regionalised impact assessment:
  - Each CF has geographic information
  - List of countries
  - Customisable geographies

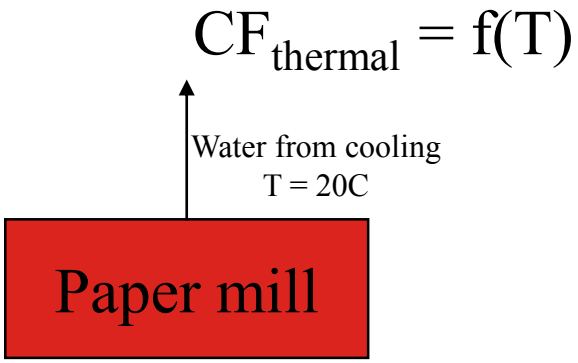
New features

- Parameters and mathematical relationships:
  - CFs are expressed as formula instead of a value
  - Parameters are defined and used as variables in a mathematical relationship
  - Parameters can have uncertainty
  - Example: human exposure to pesticide through crop ingestion

New features

- Parameters and mathematical relationships:
  - Formulas can refer to parameters not belonging to the method

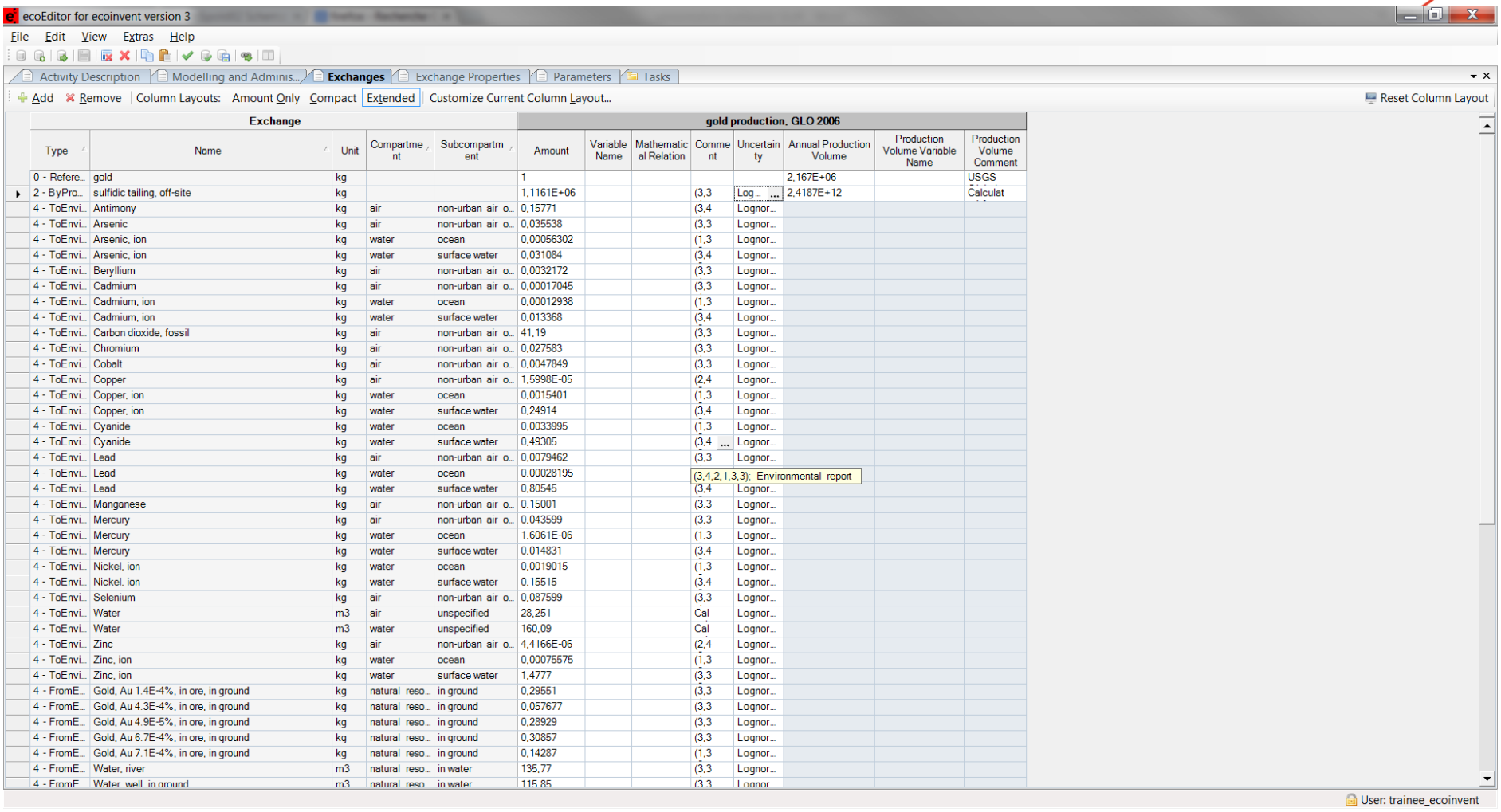




Interacting with the new format

- xml files are not user friendly:
  - Hard to read
  - Hard to edit

Interacting with the new format



Interacting with the new format

- xml files are not user friendly:
  - Hard to read
  - Hard to edit

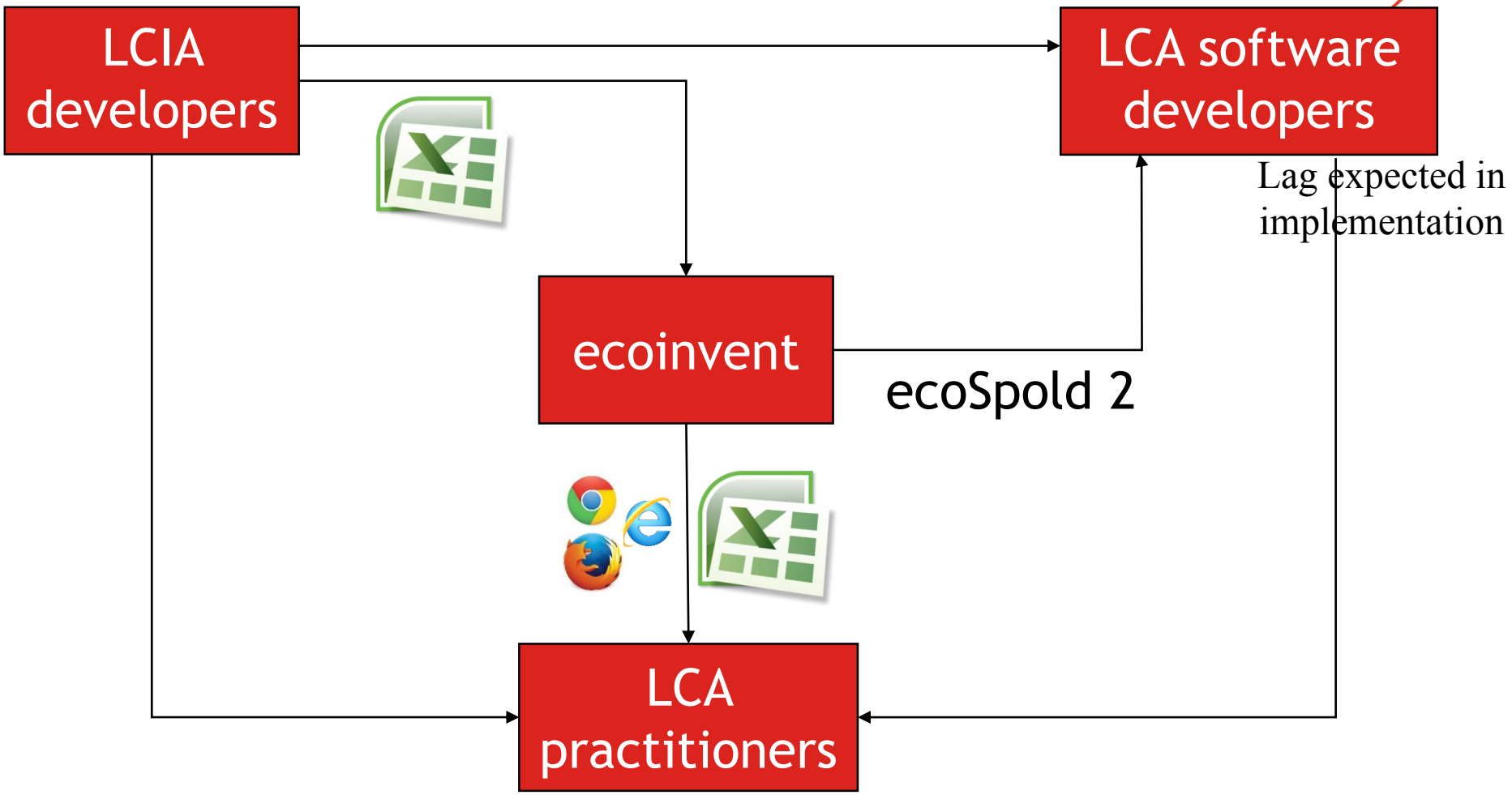
LCI data
Lots of data suppliers
High volume of information
Yearly update
Well defined needs

ecoEditor software

LCIA methods
Reduced number of suppliers
Lower volume of information
Less frequent updates
Evolving needs

Management by human

Interacting with the new format



New method implementation

- IPCC2013: GWP 20 and 100 years
- Ecological scarcity 2013

Carcinogenic substances into air	Non radioactive waste to deposit
Energy resources	Ozone layer depletion
Global warming	Pesticides into soil
Heavy metals into air	POP into water
Heavy metals into soil	Radioactive substances into air
Heavy metals into water	Radioactive substances into water
Land use	Radioactive waste to deposit
Main air pollutants and PM	Water pollutants
Mineral resources	Water resources

Take home message

- Increased flexibility for LCIA method developers
- More thorough and transparent communication
- New methods implemented

Thank you for your interest in ecoinvent version 3!

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