



# Experience sharing: Life Cycle Assessment (LCA) Databases

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# LCA research at Agroscope

- Agroscope is the [Swiss centre of excellence for agricultural research](#), and is affiliated with the [Federal Office for Agriculture](#) (FOAG)
- It is our task to [support the agricultural and food sector](#) with LCA know-how in method development, data(bases) and tools
- [Swiss Agricultural Life Cycle Assessment \(SALCA\)](#): Method, data and tools
- Areas of application
  - Evaluation of
    - [Agricultural policy](#)
    - Environmental measures in the [private sector](#)
    - Transfer of know-how to [agricultural practice](#)
- Therefore, we are involved in [database activities](#) where we enter into [strategic collaborations](#) with other database developers



# Experiences on LCA database development – involvement (1)



- **Cross-sectoral DB, international**
  - Ecoinvent
    - Partnership framework agreement for agricultural sector
      - Founding member of the association
      - Board member
      - Editorial role
      - Member of technical expert group
    - Tasks and Deliverables:
      - Methodological lead (until 2022)
      - Modelling guidelines (agriculture)
      - Dataset creation and submission (CH)
      - Review (other countries)



**SALCA**

- **Sectoral database, Agriculture, national (CH) (available through research cooperation)**
  - SALCA database (Swiss Agricultural Life Cycle Assessment)
    - Tasks and Deliverables
      - Methodological lead
      - Dataset creation
      - Database management
- **Sectoral database, Agriculture and Food, international**
  - World Food LCA Database
    - Co-lead (first phase)
    - Tasks and Deliverables:
      - Methodological lead (until V 2.0)
      - Modelling guidelines (until V3.5)
      - Datasets creation and submission
      - Review



WORLD FOOD  
LCA DATABASE



# Experiences on LCA database development – involvement (2)



- Sectoral database, *Agriculture, national (FR)*
  - Agribalyse (until V 1.2) – management lead (FR)
    - Tasks and Deliverables:
      - Methodological lead
      - Modelling guidelines (agriculture)
      - Datasets creation and submission
      - Review



- Sectoral database: *Food transformation, national (FR)*
  - ACYVIA
    - Tasks and Deliverables:
      - Modelling guidelines (co-lead)
      - Review of datasets

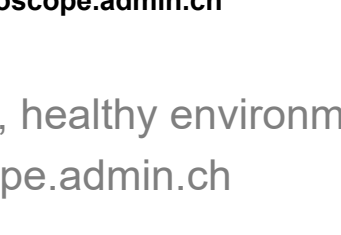
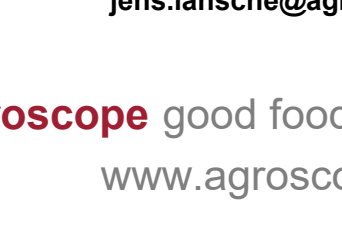
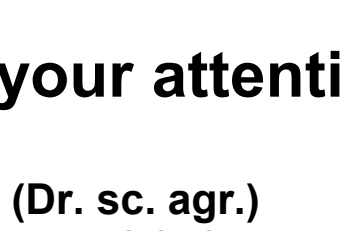
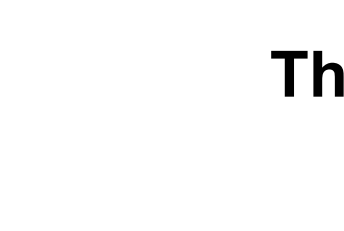
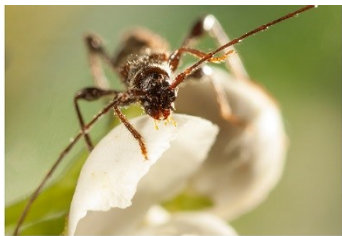


- Sectoral database: *Agriculture, Renewables and Feed, European/international*
  - Review of several lots of EU Product Environmental Footprint (PEF) datasets (up to EF 3.0)
  - Input for PEF guidelines on agricultural modelling



# Learnings and recommendations regarding LCA database development

- **Maintenance** is at least as important as development and very challenging
  - Business model
  - Governance and partnership with key actors
- Precise and comprehensive **documentation** is key
- **Data availability** and quality can differ a lot between
  - different countries
  - product groups
- Precise and detailed but flexible **modelling guidelines** are necessary to ensure a minimum level of quality and allow to come to higher data quality levels during further development
- Independent **quality control** (review) is essential to ensure un-biased Life Cycle Inventories (LCIs)
- **Inter-operability** between different sectoral databases is challenging because of different quality criteria, data formats and methodological choices
- Several national and international initiatives have proven the feasibility and gained a lot of experiences
- Available databases are a powerful tool for political evaluation



**Thank you for your attention**

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