

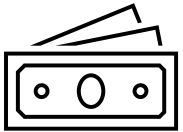
Background database: central to the ecosystem

84th LCA Discussion Forum

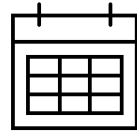
22. September 2023

Emilia Moreno Ruiz, CTO ecoinvent

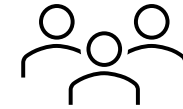
Theecoinvent association



**Swiss not for profit
association**



Founded > 20 years ago



>50 experts

...we publish one of the worlds' broadest background environmental database.

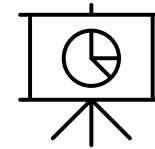
Mission driven



Promote and support the availability of high-quality data



Compile and review the best available data



Publish data in a regularly maintained, transparent database and support users

Our role in other initiatives



- Members of Global LCA Data Access and Global Guidance on Environmental Life Cycle Impact Assessment Indicators (GLAD-GLAM) initiatives
 - Active in several working groups
 - leaders of the GLAD EF Mapping project
- Data providers of the Environmental Footprint Data initiative of the EC, for pilot and transition phase
 - EF pilot phase (ecoinvent only) 2017 – 2021. Chemical sector; support for CEPE
 - EF transition phase (ecoinvent only) 2019 – 2024. Chemical sector
 - EF transition phase (consortium) 2020 – 2024. Chemicals & Plastics, Agrofood, Renewables, Textiles. Support for CEPE

The database

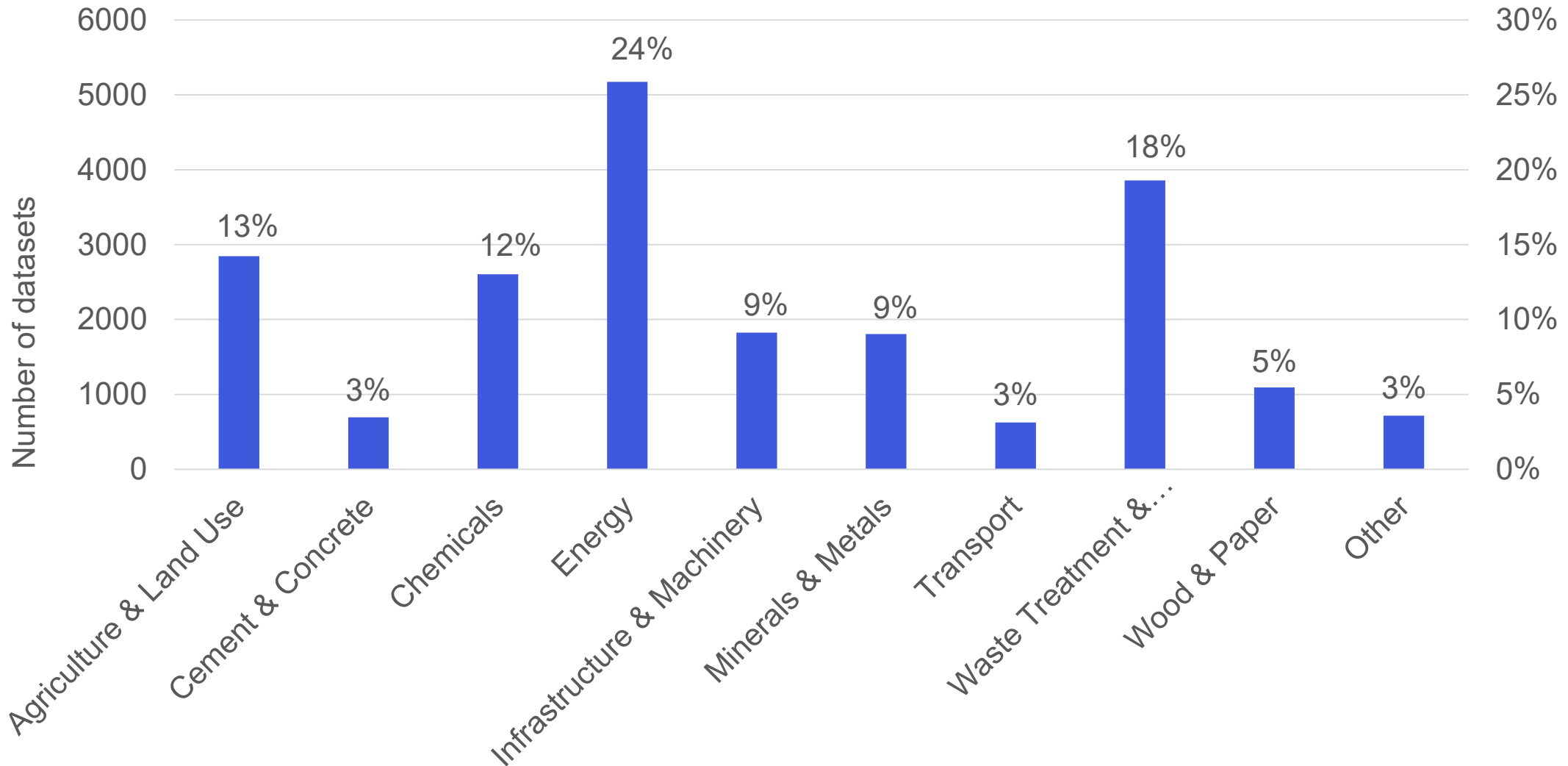


19'000 datasets:

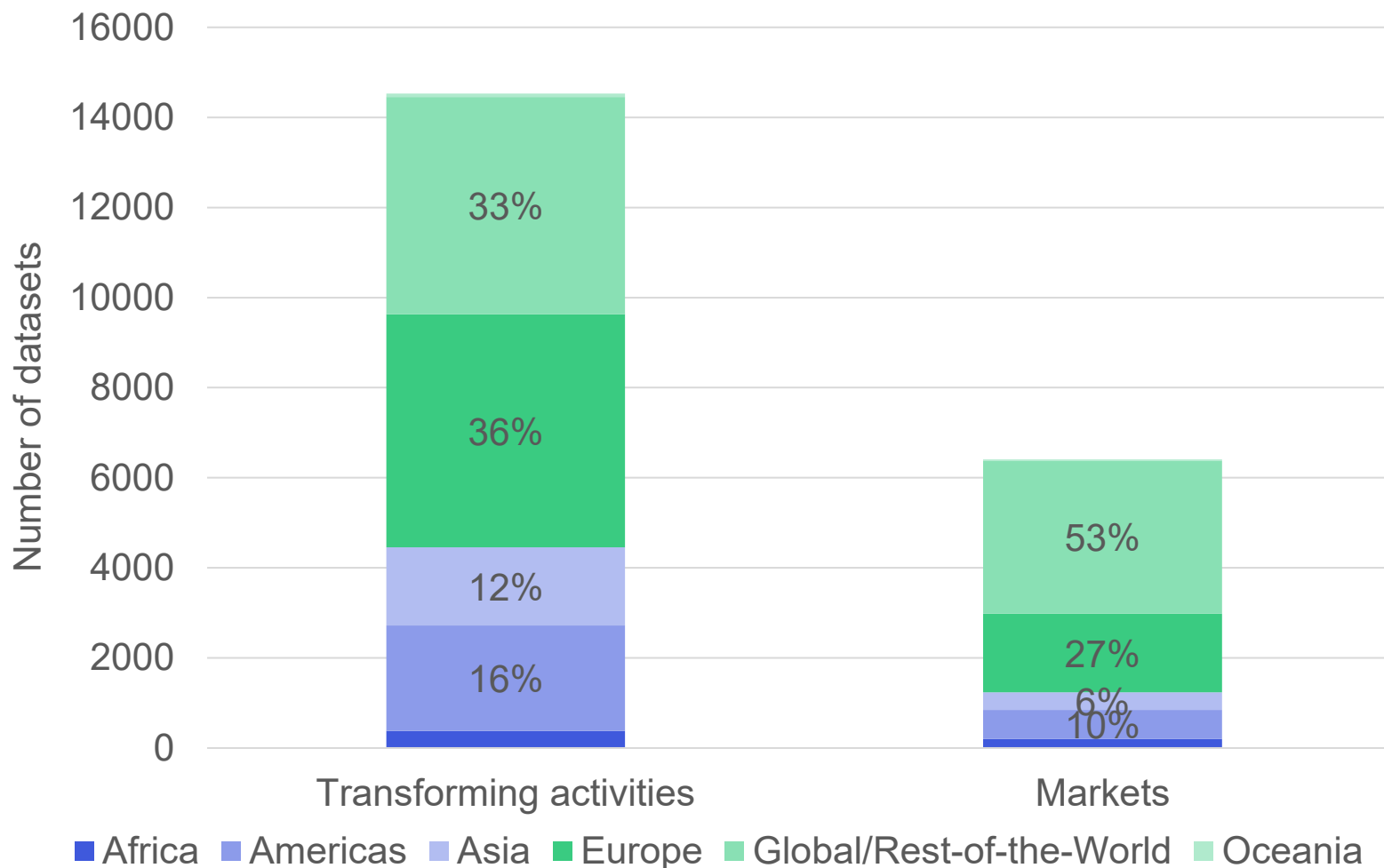
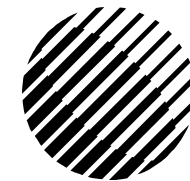
- Processes and markets
- > 3'500 products
- Updated yearly
- The database covers a broad variety of sectors
- Aim is global coverage



Number of datasets per sector



Geographical coverage



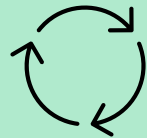
Being a useful
background
database



Cardinal rules of a background database



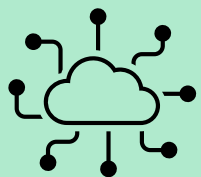
Managed



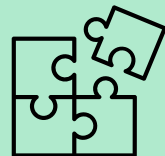
Maintained



Clear Governance

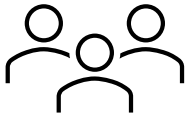


Connected



Modular

The database manager



Part of the Governance

With Strategic Board

With Technical Advisors

With Editors

Listening to users

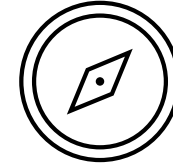


Methodology keeper

Propose and innovate on methodology

To enforce the methodology

To lead the review process



Orchestrator

To provide coherence in technologies and sectors (boundaries, modelling)

For the maintenance and data strategy

Maintained in time

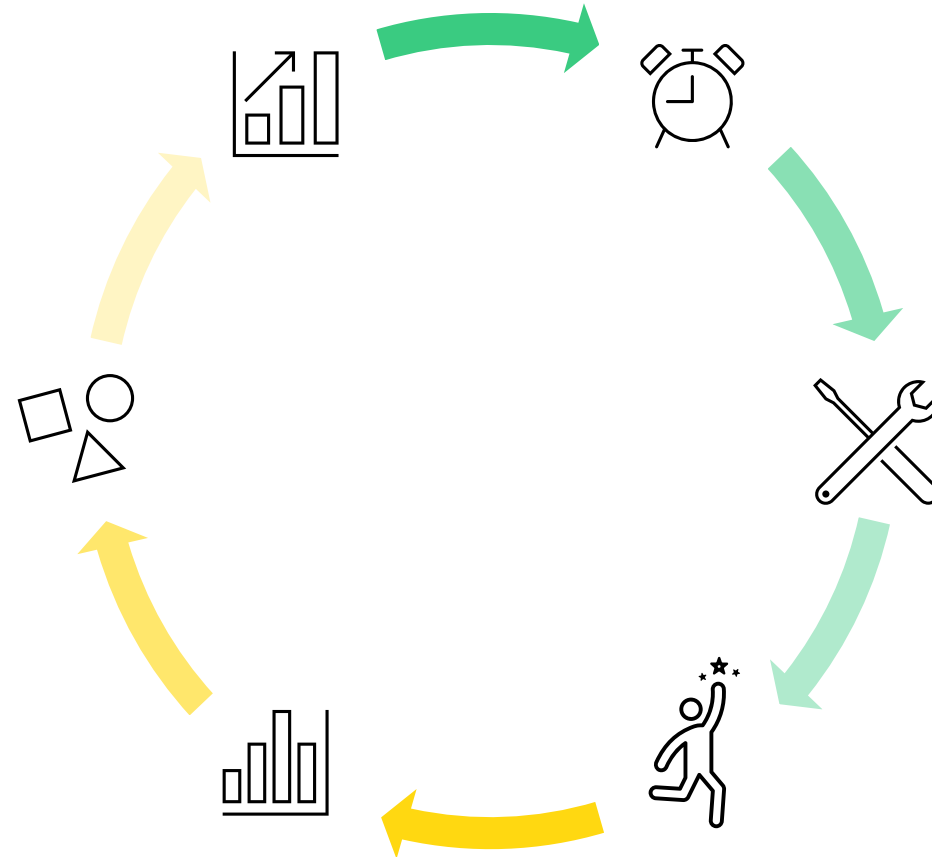


Addition of new data

New technologies, new regions, new products.

Update of data to match new features

Update of aging data



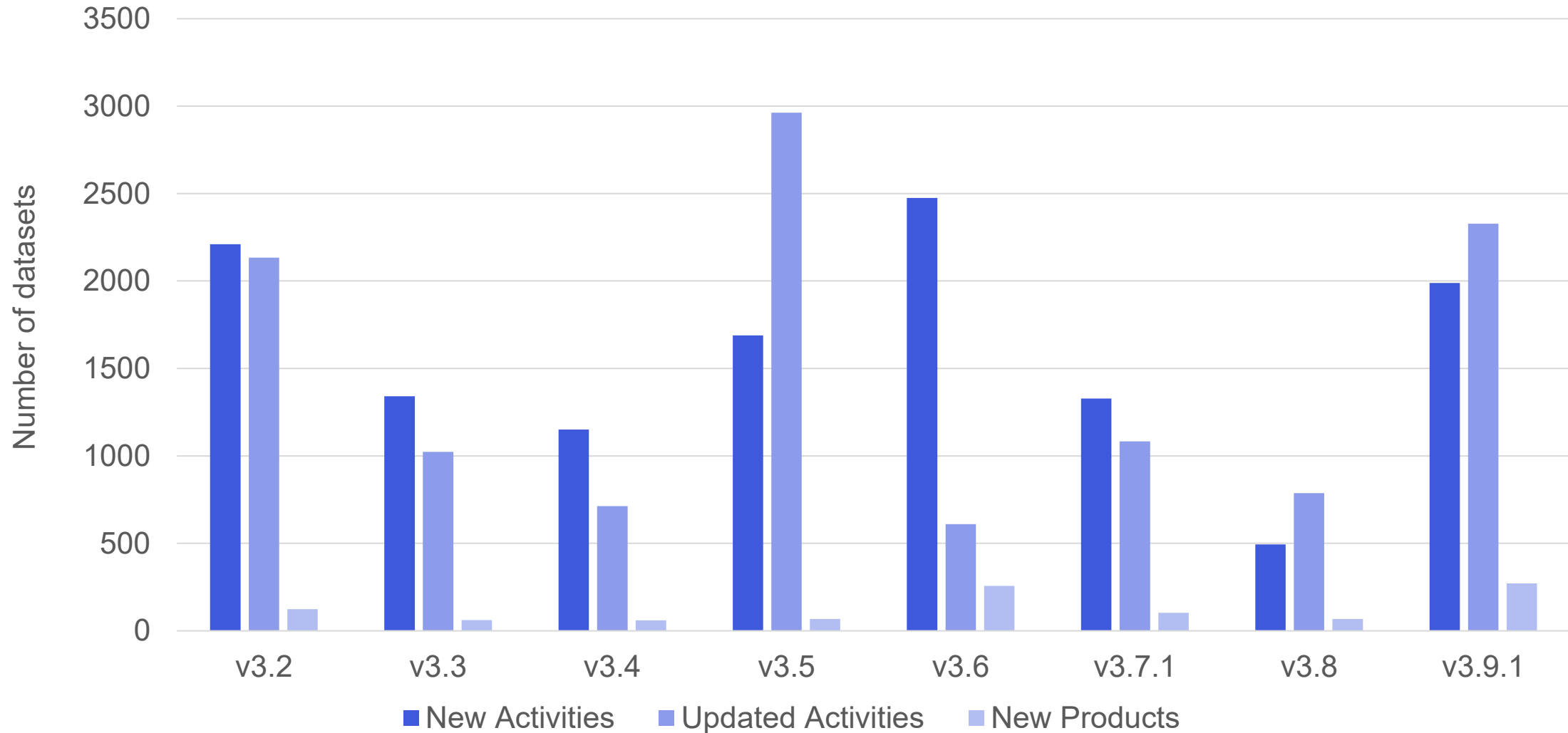
Not static

Database is not a repository of data.

Correction of bugs and errors

Update of fast evolving data

The database over the years

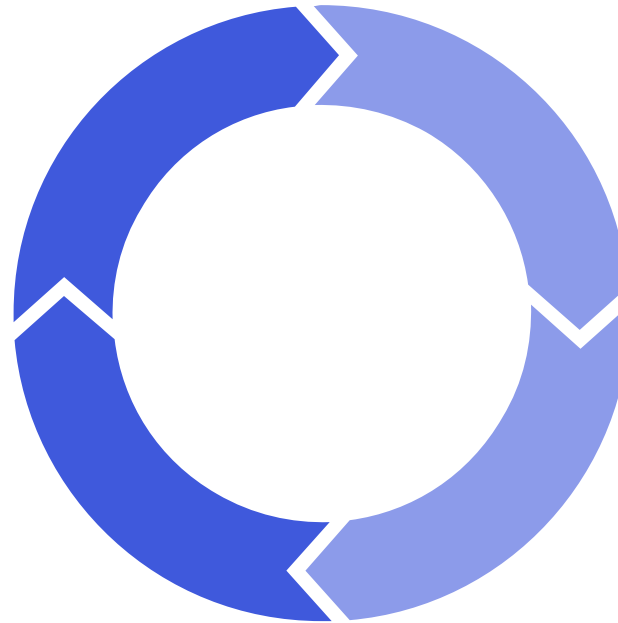


Modularity



- Transparency - UPR level
- Traceable supply chains
- Fit-for-purpose

Data



System models

- Adaptability to standards
- Future-proof
- Fit-for-purpose

System Models

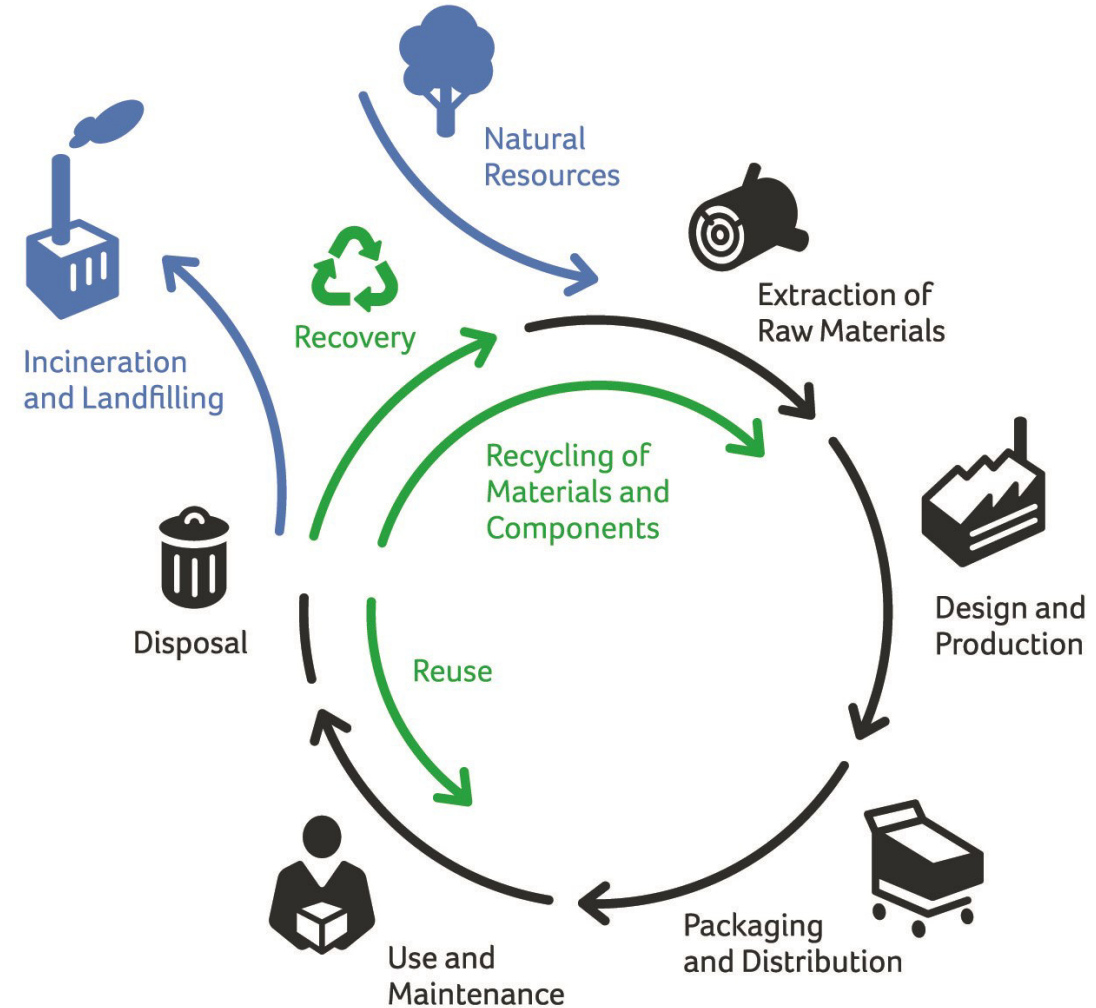


	Allocation, cut-off by classification	Allocation, APOS	Substitution, consequential, long-term	Allocation, cut-off, EN15804
Allocation	✓	✓		✓
System expansion		✓		
Substitution			✓	
ISO 14040-44 compliant	✓	✓	✓	✓
EN15804 ISO21930 ISO14025				✓

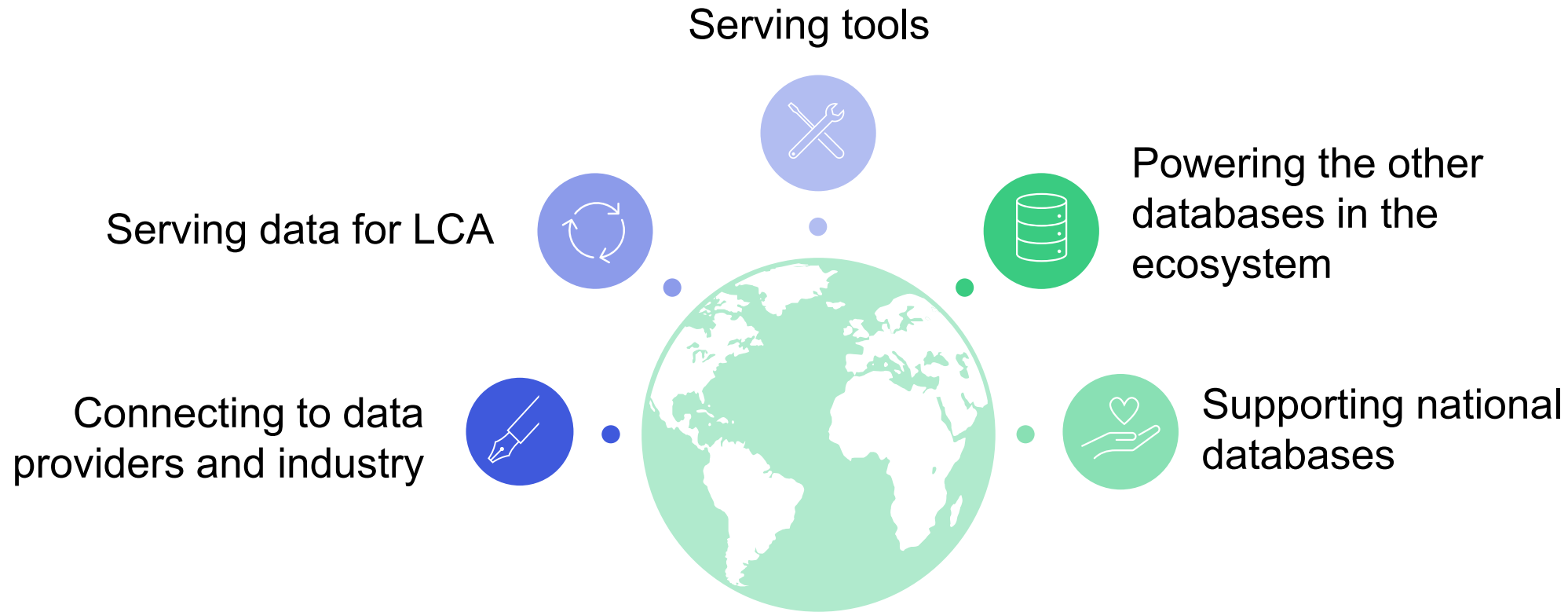
When data is modular



- Data build as Unit Process: transparent modular building blocks
- Allows deep understanding on all steps of the life cycle (value chain)
- Double counting, data gaps, or hidden system expansions are avoided
- All upstream and downstream activities are represented



Connected to the ecosystem



Connected to the ecosystem



Managing national and sectorial databases: Quebec, Brazil

Challenges and future



- System models: user needs
- Develop ad-hoc data strategies, that cover needs of the different actors
- Maintenance: keep on improving
- Participation in governance of other databases, add to the mix
- Facilitate and power creation of data
- Keep on working for interoperability
- Stay connected and doing what we do best...

provide the most robust and transparent data to enable sustainable decisions

Thank you

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ecoinvent