



Valueflows

A vocabulary for economic networks

<https://valueflo.ws>

# Valueflows is a standard vocabulary

- Valueflows is a set of common vocabularies to describe flows of economic resources of all kinds within distributed economic ecosystems
- Its purpose is to enable inter-networking among many different software projects for resource planning and accounting within fractal networks of people and organizations
- The vocabulary would fit many different kinds of economic formations - value networks, supply chains, joint ventures, business collaboration networks.... as well as individual cooperatives or other enterprises

# Valueflows is based on REA

REA stands for **Resources**, **Events**, **Agents**.

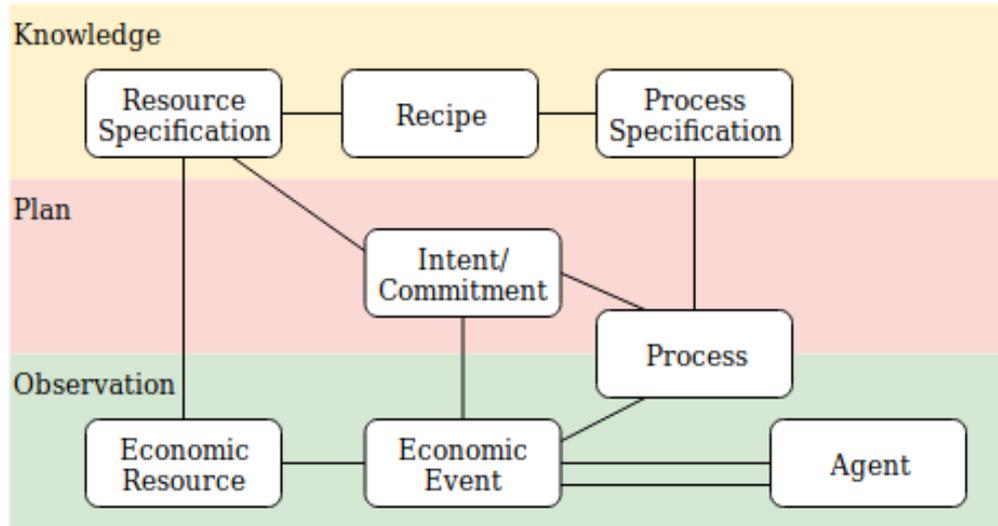
**Agents** are individual persons or organizations, who perform Economic Events affecting Economic Resources.

An Economic **Event** can take actions like create, change, consume, use, or destroy Economic Resources, or transfer them from one Agent to another, or transport them from one place to another.

Economic **Resources** could be

- Useful goods and services
- Money, tokens, credits
- Energy
- Labor power, skills
- CO<sub>2</sub>, methane, heat
- Air, water, soil microbiota
- .....

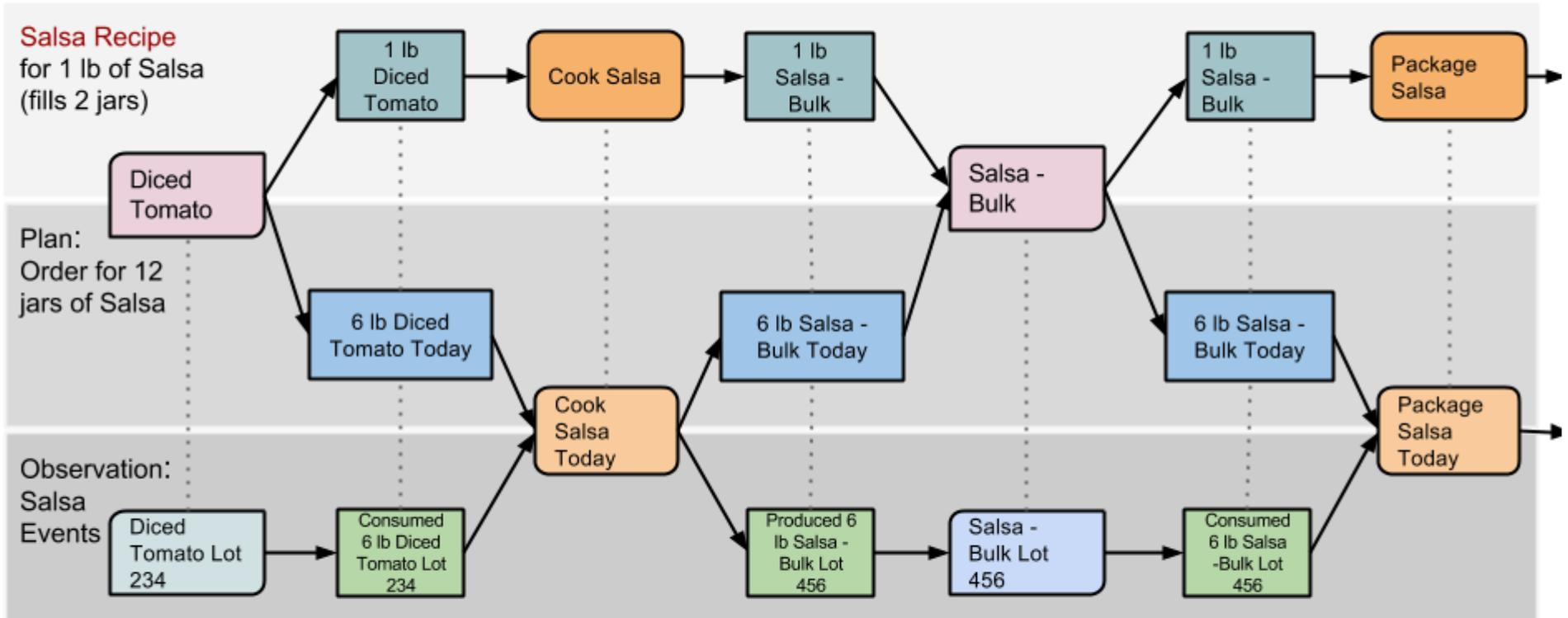
# Levels of the ontology



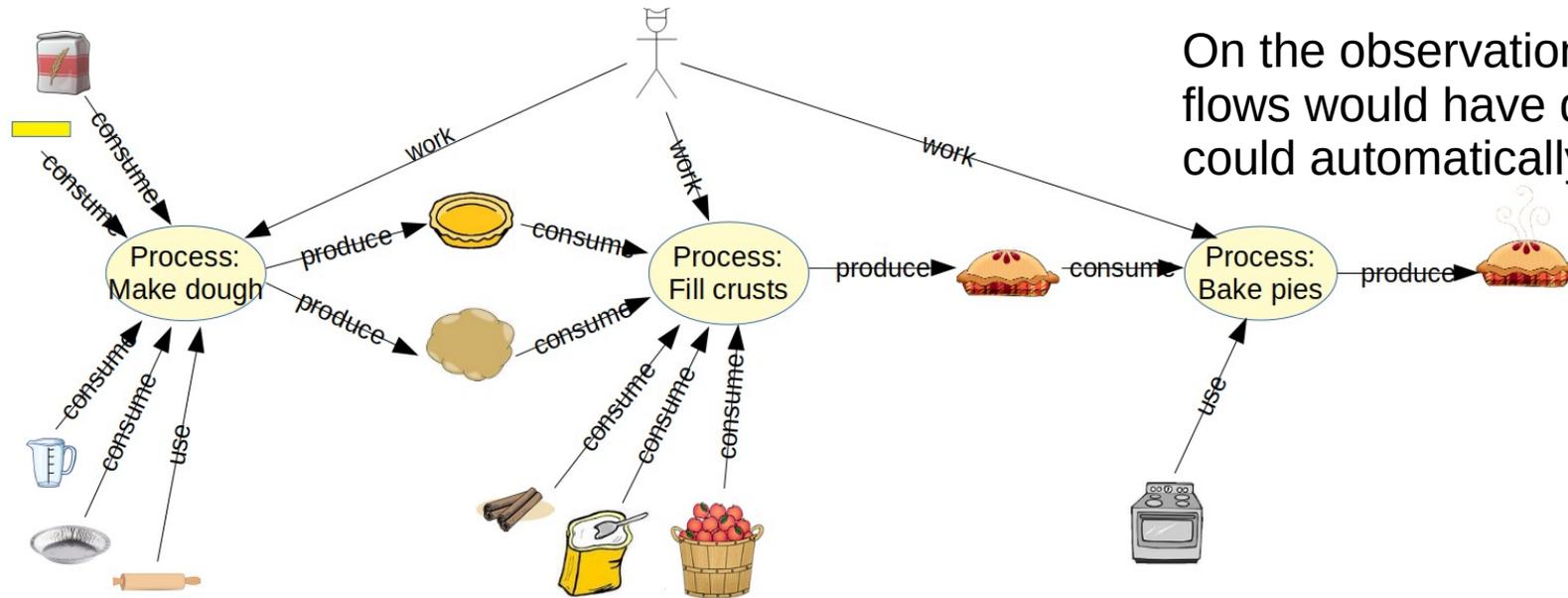
- The Knowledge level represents classification, policies, procedures, rules and patterns. This is where each network or community can configure the core concepts to fit their needs.
- The Plan level represents offers, requests, schedules and promises.
- The Observation level represents what really happened.

# Operations: the levels

This salsa diagram shows the “layers”, recipe (knowledge), plan, actuals (observation). All layers follow basically the same input-process-output pattern.



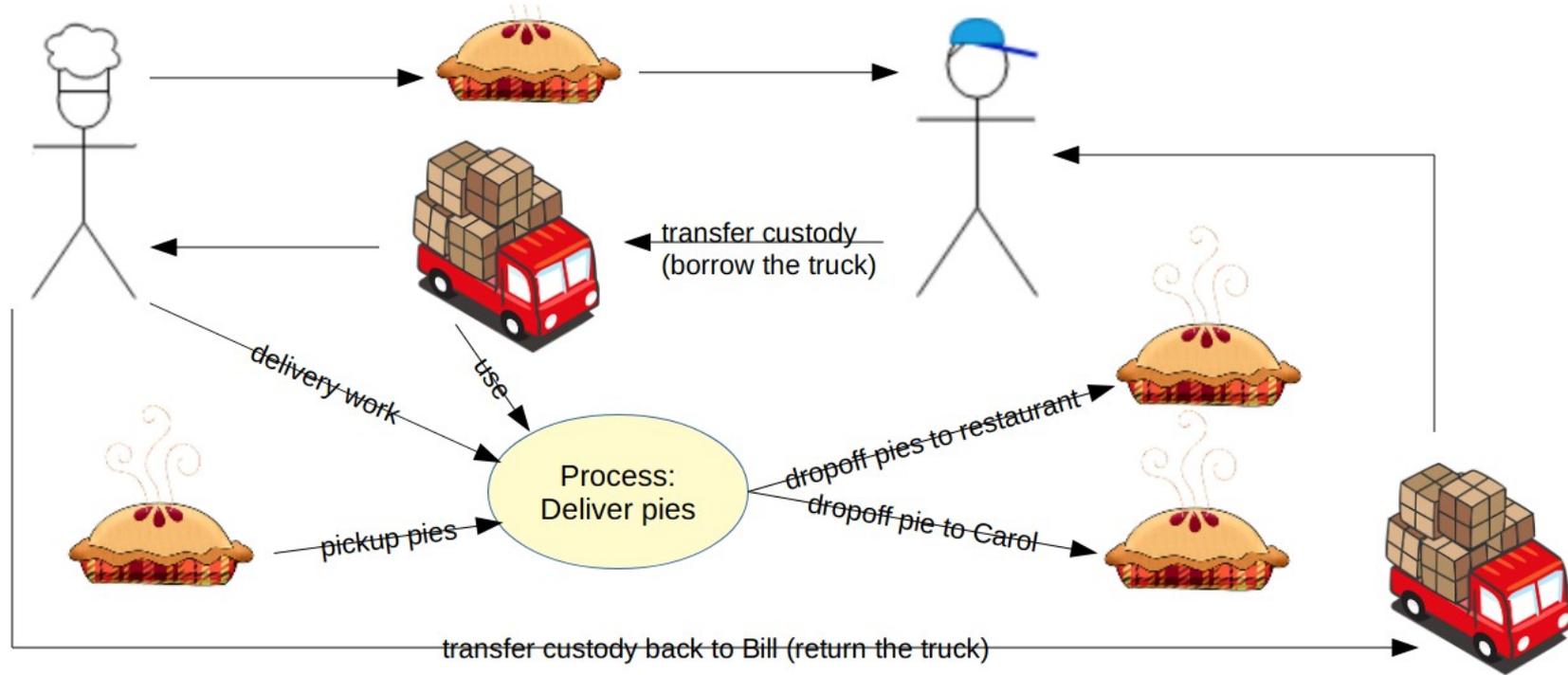
# Operations: input-process-output



On the observation layer, these flows would have quantities which could automatically update inventory.

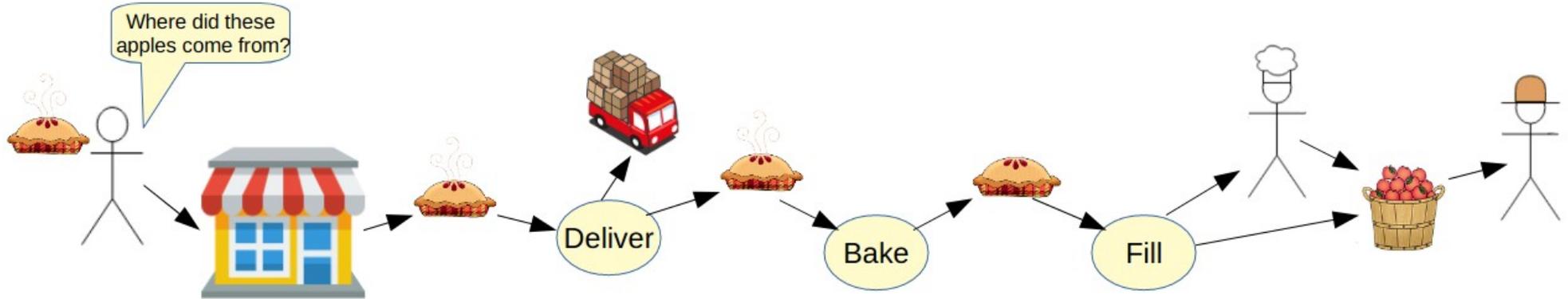
Processes can be configured at any level that makes sense to the users. For example, having 3 processes in this flow allows operational flexibility: The baker can make a lot of dough and use it for blueberry and pumpkin pie, as well as apple pie. Then she might want to bake different kinds of pies in one oven at the same time too, or freeze half of the unbaked apple pies to bake later.

# Operations: exchange and production



Transfer of resources, transportation of resources, and production of resources can all connect into larger flows.

# Operations: tracking and tracing

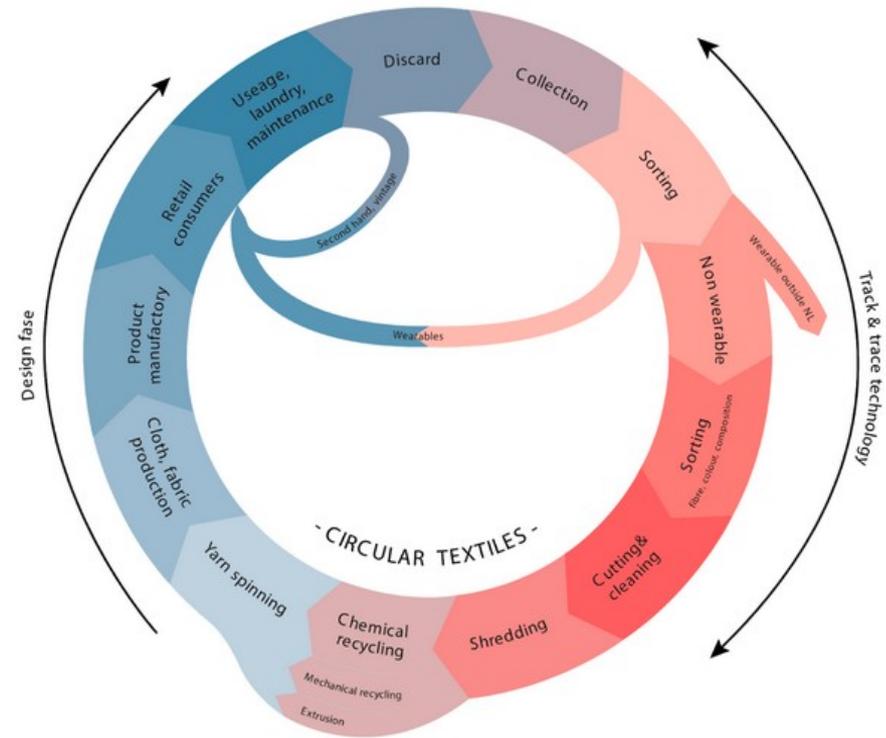
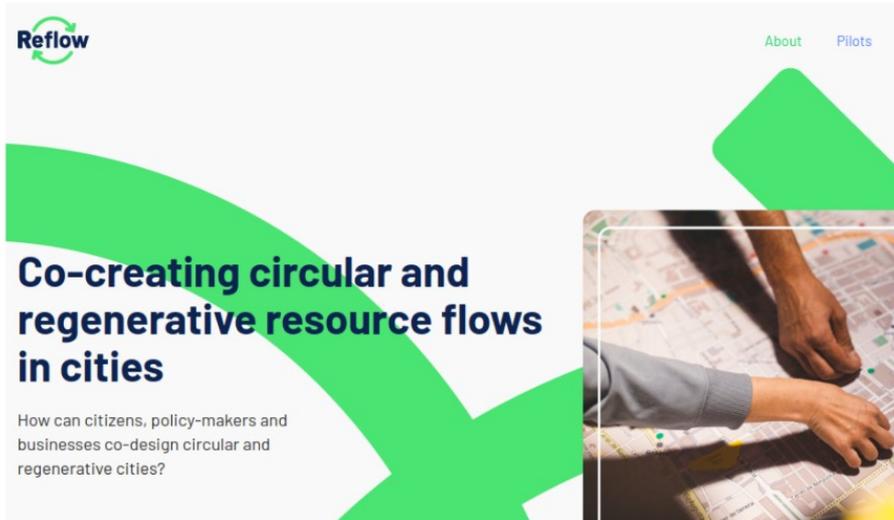


One of the most-often used traces is to find the origins of health problems like mad cow disease and tainted drugs and food. In Valueflows terms, that would start with the economic resource that caused a problem, and trace back along the chain of resource flows to the source or sources of the resource. Then it might be necessary to also track forwards from the source(s) to find everything else that might include that source(s).

A nicer story: A restaurant customer might find out that the pies are made by a local baker who uses all organic ingredients. They might find out that the apples come from a cooperative worker-owned apple orchard.

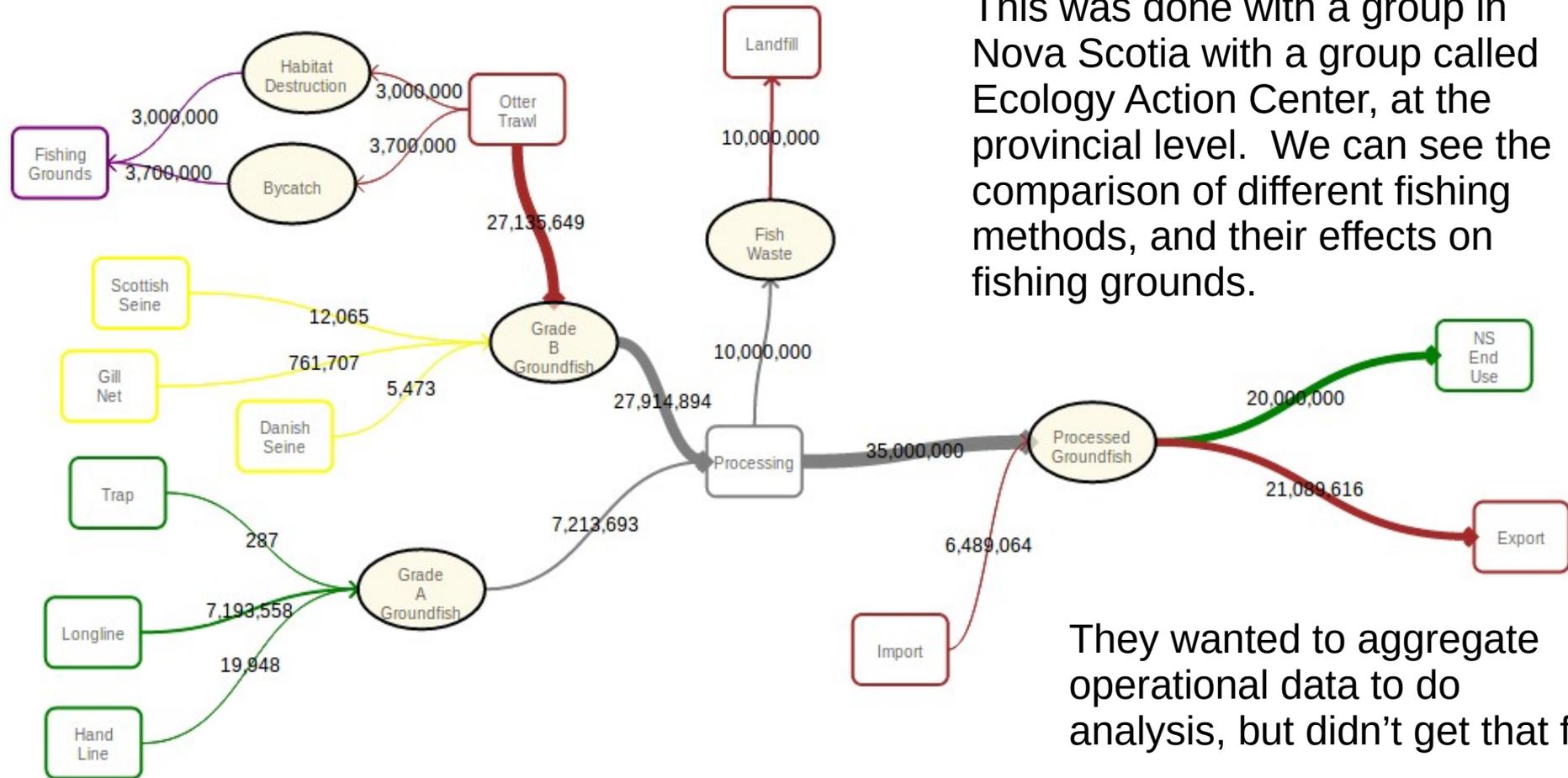
# Operations: Municipal

Reflow is a project in process that is using Valueflows for municipality-wide circular economy projects in Europe.



In Amsterdam, they are working with the textile industry.

# Analytical: Provincial



This was done with a group in Nova Scotia with a group called Ecology Action Center, at the provincial level. We can see the comparison of different fishing methods, and their effects on fishing grounds.

They wanted to aggregate operational data to do analysis, but didn't get that far.

# Distributed Valueflows framework projects

Holo-REA: <https://github.com/holo-rea> using <https://holochain.org/>

Bonfire: <http://bonfirenetworks.org/valueflows> using <http://activitypub.rocks/>

These generic backend frameworks (in process) can be accessed by frontends created for specific use cases.