Supply chain transparency for coffee – what are the synergies between blockchain and LCA



Life Sciences and Facility Management

Institute of Natural Resource Sciences





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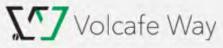
Life Cycle Assessment Research Group, Zurich University of Applied Sciences (ZHAW)

Fabiana Margadant

Delica, Birsfelden, Switzerland Hans Hegglin, Carlos Ortiz Perez

Volcafe, Winterthur, Switzerland

DELICA



73rd Discussion Forum on LCA 21st November 2019, Campus Grüental, Zurich University of Applied Sciences, Wädenswil

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Goal of the project

Faster, cheaper, safer?

What's the use of Distributed-Ledgers in Agro-Food-Business?

- Show possibilities, opportunities & limits.
- Pratical application to the coffee supply chain

Partners within Zurich University of Applied Sciences

- Food experts: Institute of Food and Beverage Innovation
- IT experts: Institute of Applied Simulation
- LCA and food experts: Institute of Natural Resource Sciences
- Partners for Coffee
- Delica and Volcafe

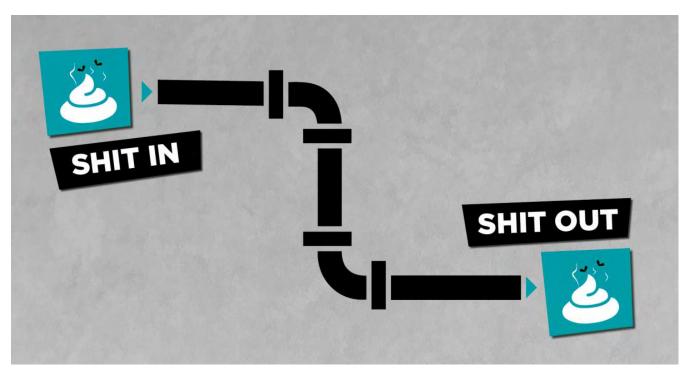




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Point of entry



https://effectgroep.nl/

- The data management system does not influence the quality of the data
- \rightarrow This is valid for Blockchain as well as LCI data

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Digitisations starts at the coffee farm



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https://www.rainforest-alliance.org/

- Agronomical coaching within Volcafe Way
- Continuous reporting of yield, location, fertilisers, pesticides and other expenditures
- LCI Data is collected via Volcafe Way app and stored
- App works offline
- Challenge for blockchain: internet access

How do we digitise the life cycle of coffee?



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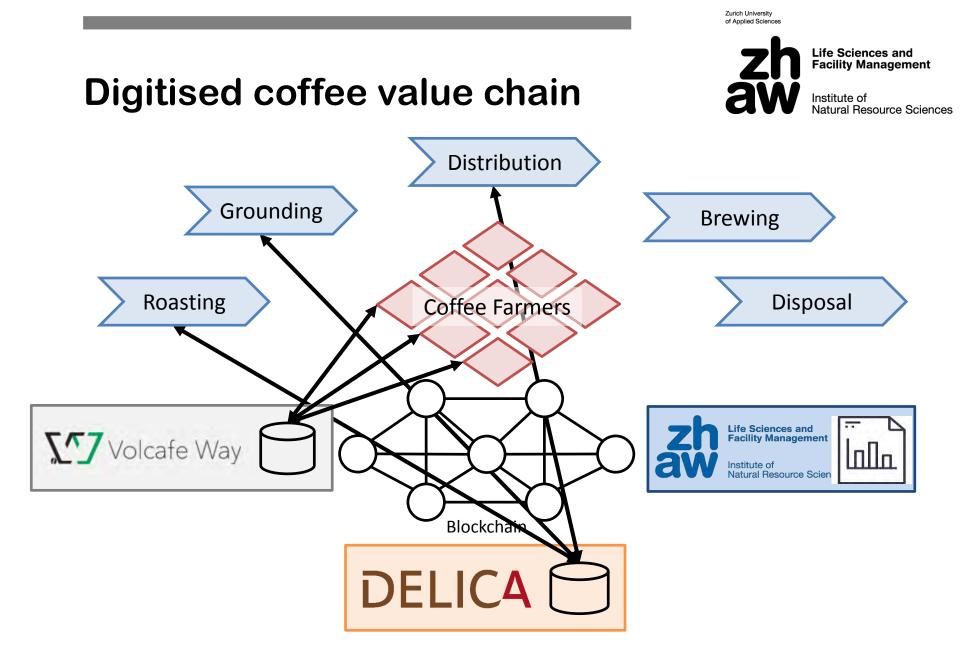
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https://www.reddit.com/r/interestingasfuck

- Its not only about the life cycle inventory of coffee but also the involved actors
- How can we bring the actors closer together? e.g. customers and coffee farmers?

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Conclusion





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- Digitised data collection for Life Cycle Inventory starts with the cultivation of coffee
- The digitised value chain will bring the involved actors closer together
- Collect trustworthy and transparent information for Life Cycle Inventory models

Thanks for your attention

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Any questions?

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Life Cycle Assessment Rohstoffabbau > Herstellung > Nutzung > Entsorgung | Recycling