



Agricultural Greenhouse Gas Emissions:

Research Activities at ART / Agroscope

Daniel Bretscher

Agroscope Reckenholz-Tänikon ART

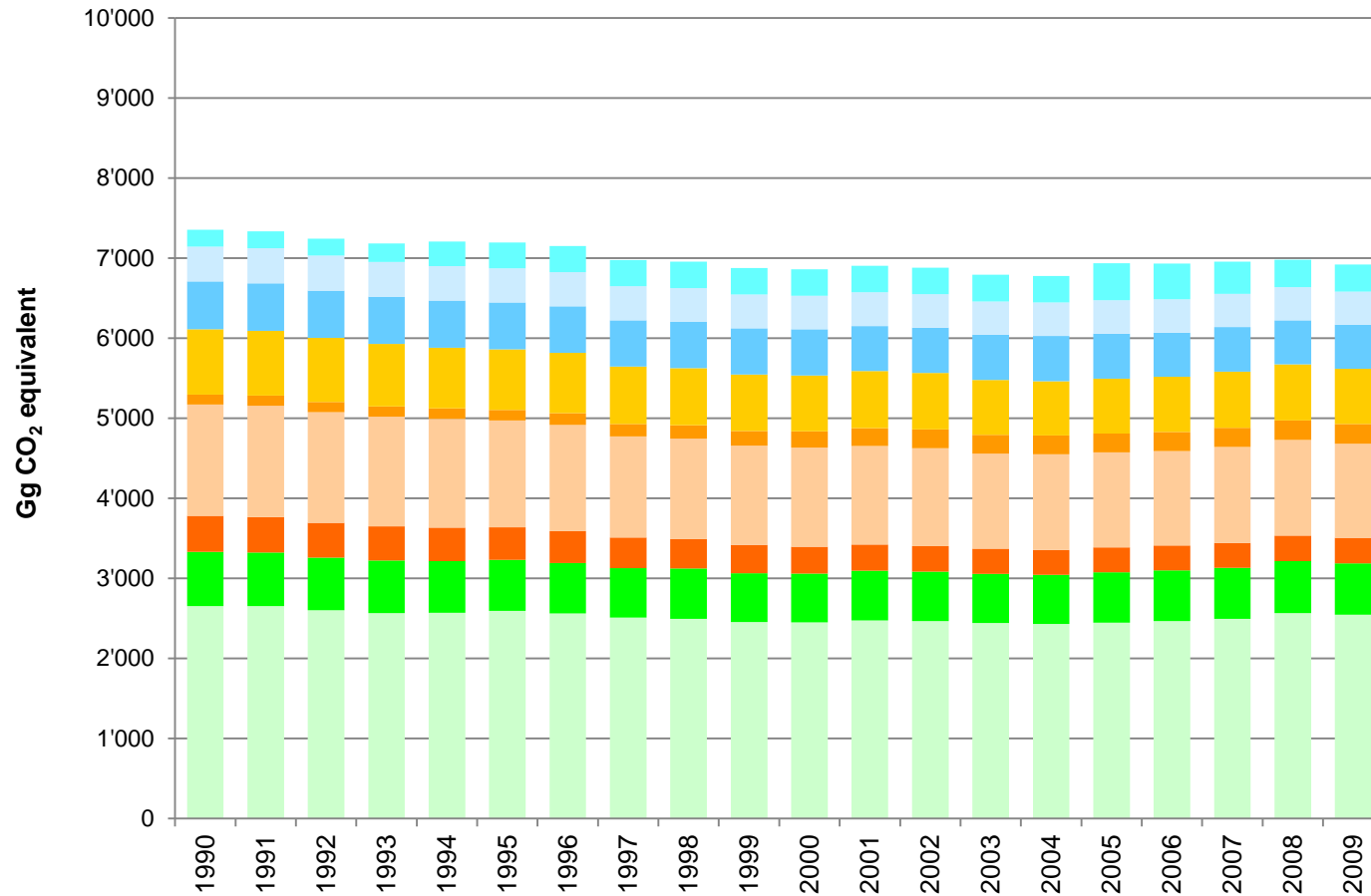
Air Pollution / Climate Group

12.07.2013



National Greenhouse Gas Inventory UNFCCC / KP:

Agricultural Greenhouse Gas Emissions in Switzerland 1990-2009

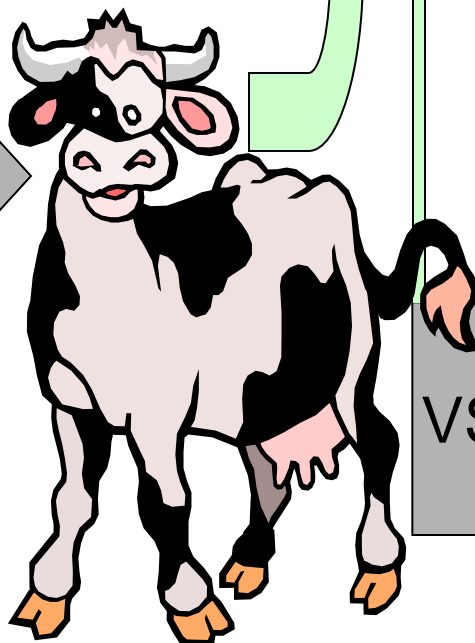




Enteric
Fermentation

Manure
Management

Gross Energy
Intake

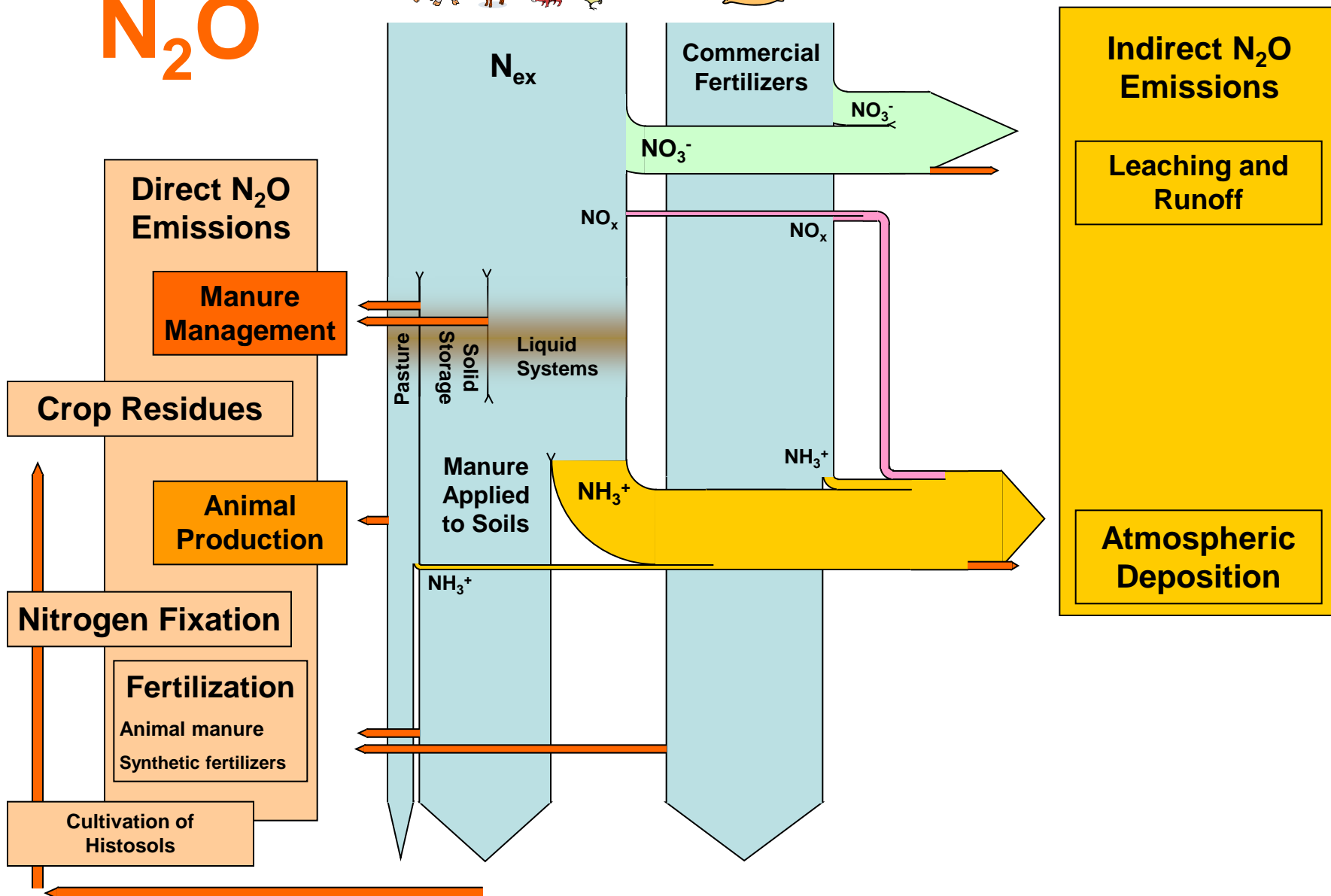


VS

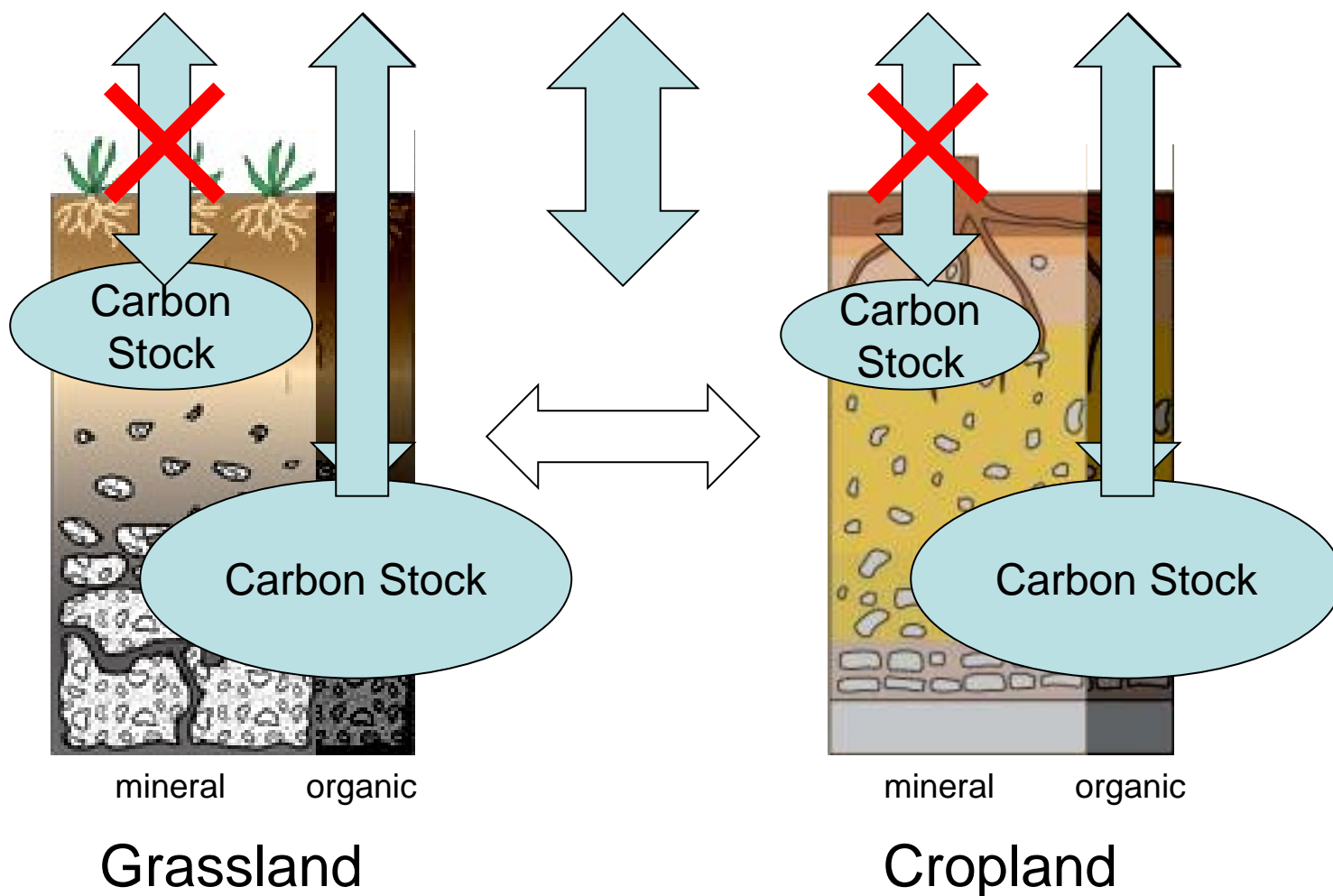
Solid Storage / Deep litter

Liquid System

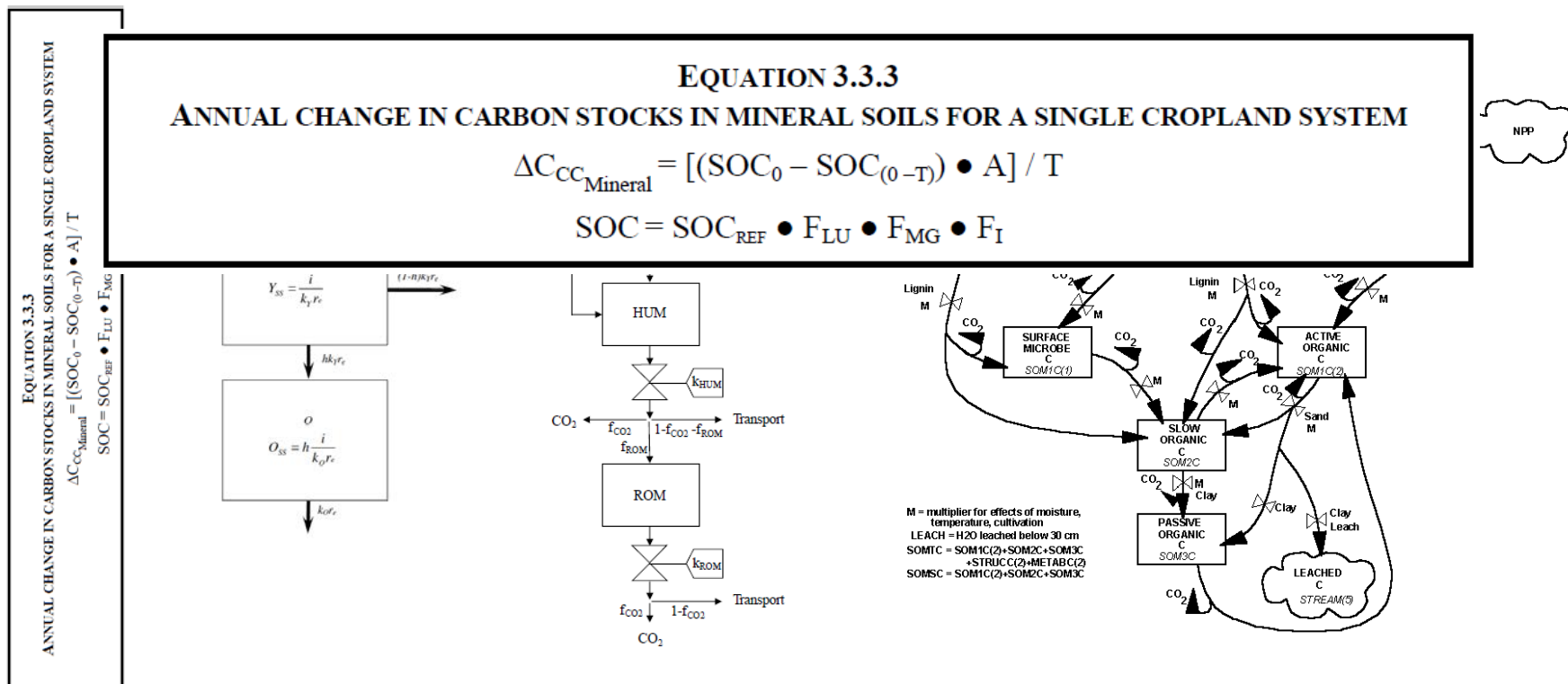
Pasture



Assessment of Carbon Stock Change in Agricultural Soils



Assessment of Carbon Stock Change in Agricultural Soils

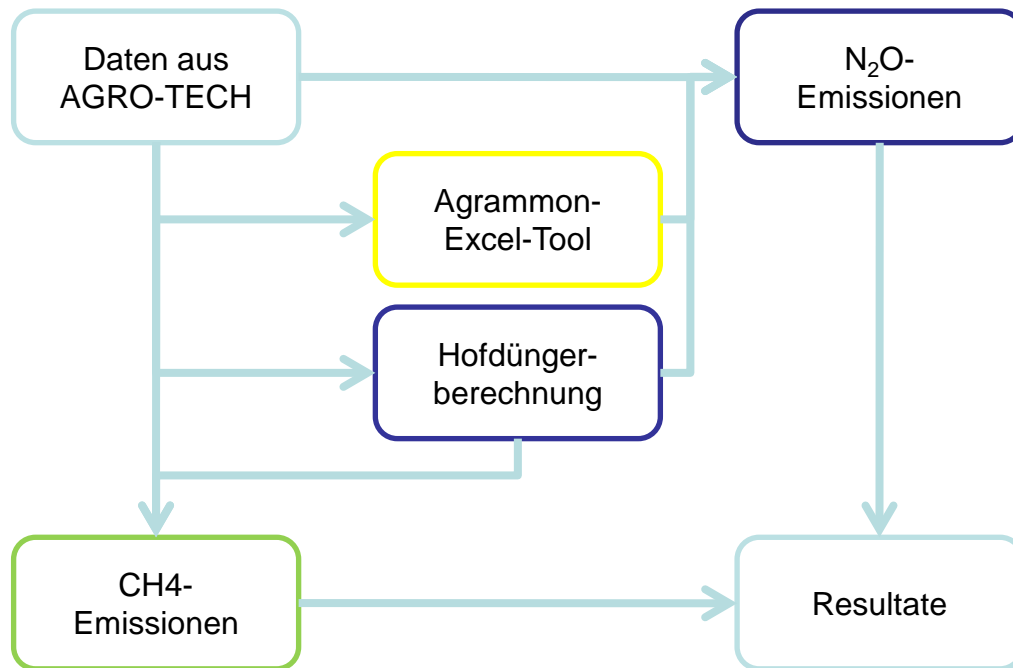


RothC
 Yasso 07
 Candy Carbon Balance (CCB)

Single Farm Model

Agro-Environmental Monitoring

Modeling of ~ 300 Swiss farms



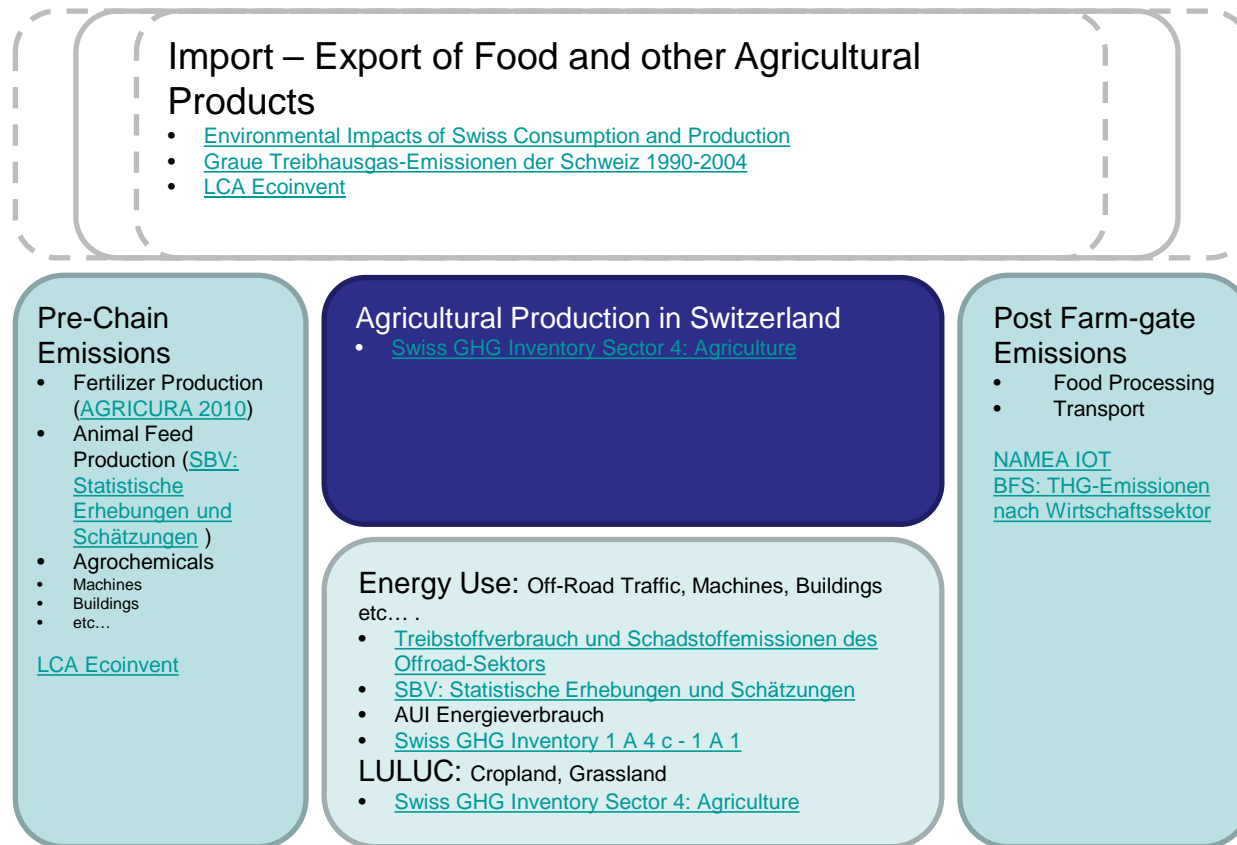
Single Farm Model



www.emission-impossible.ch

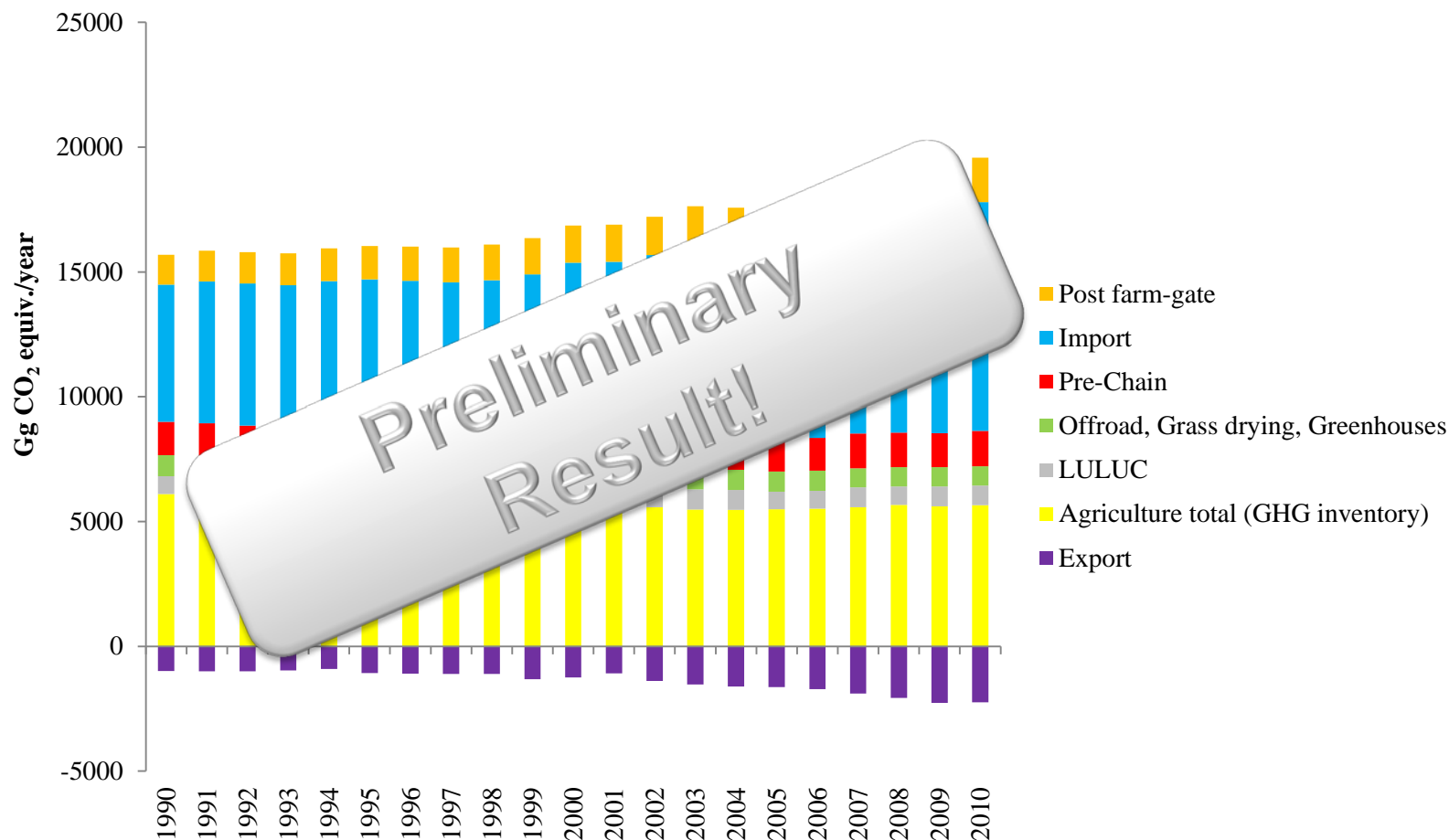
GHG Emissions Related to Food Consumption in Switzerland

Food Chain Approach



GHG Emissions Related to Food Consumption in Switzerland

Food Chain Approach



LCA - Analysis

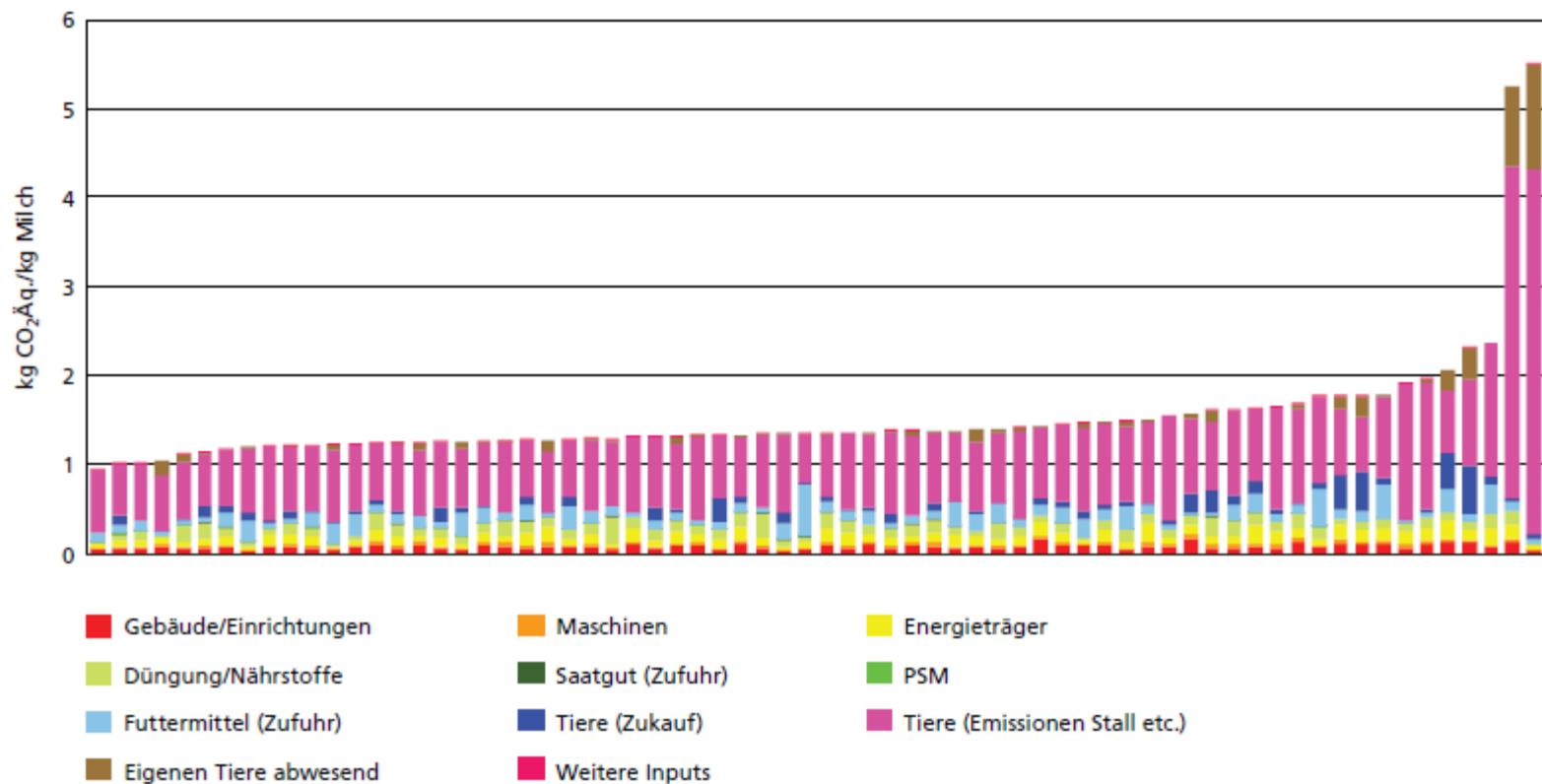
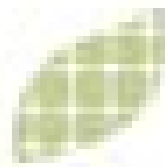


Abbildung 28: Treibhauspotenzial pro kg Milch der 68 Betriebe der reduzierten Stichprobe, aufgeteilt nach Inputgruppen.

Source: Hersener et al. (2011)

Mitigation Activities

AgroCleanTech



firstclimate²



Machbarkeitsanalyse von Programmstrukturen für Klimaschutzmassnahmen in der Schweizer Landwirtschaft

April 2013

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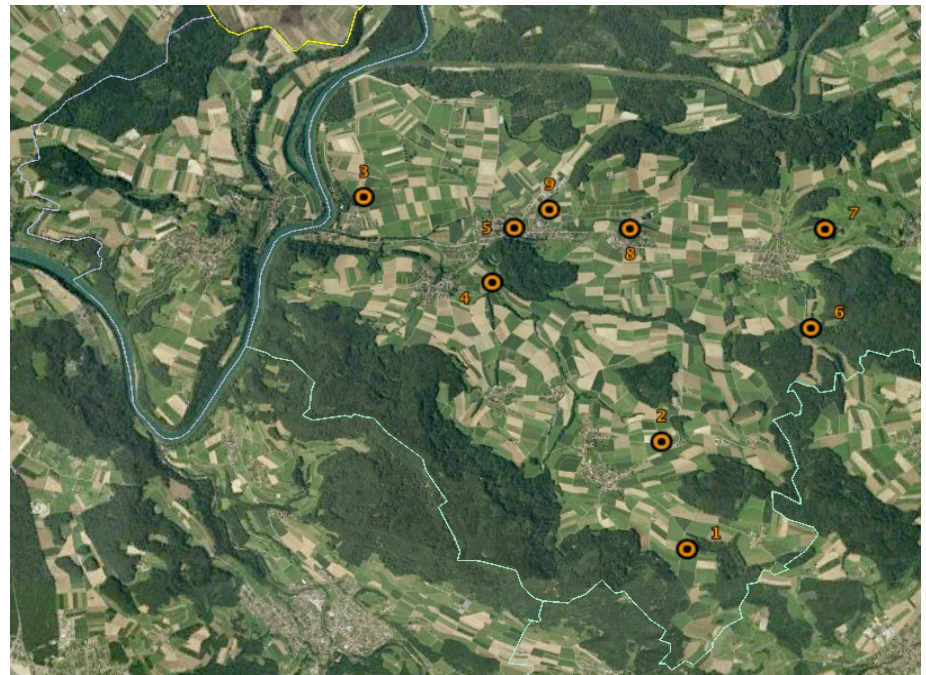


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Mitigation Activities



Thank you!



**ART – Research for
Agriculture and Nature**

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