

Environmental impacts of consumption and production in Switzerland: Environmentally extended input-output-analysis

Dr. Niels Jungbluth

ESU-services Ltd., Uster, Switzerland



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Outline

- Project goals
- Methodology
- Results
 - policy recommendations
 - methodological issues
- Outlook (possibilities for updates)

Project Goals

- Develop a method for comprehensive analysis of environmental pressures in Switzerland (pilot project)
 - A production and consumption perspective
 - All relevant environmental issues
 - Combination of EE-IOA and LCA
- Set up a data base for analysis with reference year 2005
- Provision as SimaPro data for further analysis
- Identify important areas of consumption and production

Two perspectives on environmental impacts

Production perspective

	induced by:	
	Domestic final demand	Exports
Domestic environmental impacts		
Environmental impacts abroad		

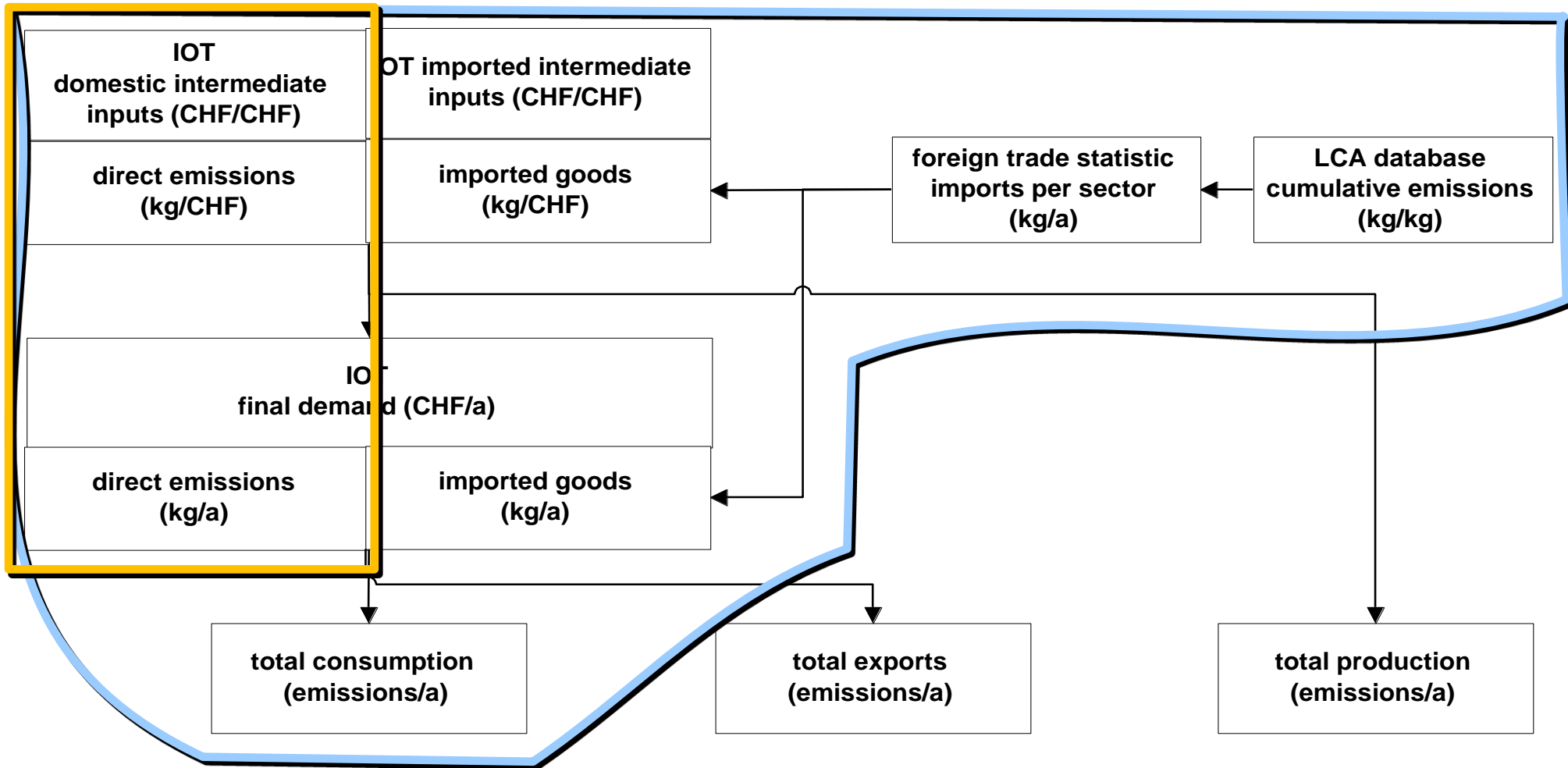
Consumption perspective

	induced by:	
	Domestic final demand	Exports
Domestic environmental impacts		
Environmental impacts abroad		

Source: Rütter+Partner

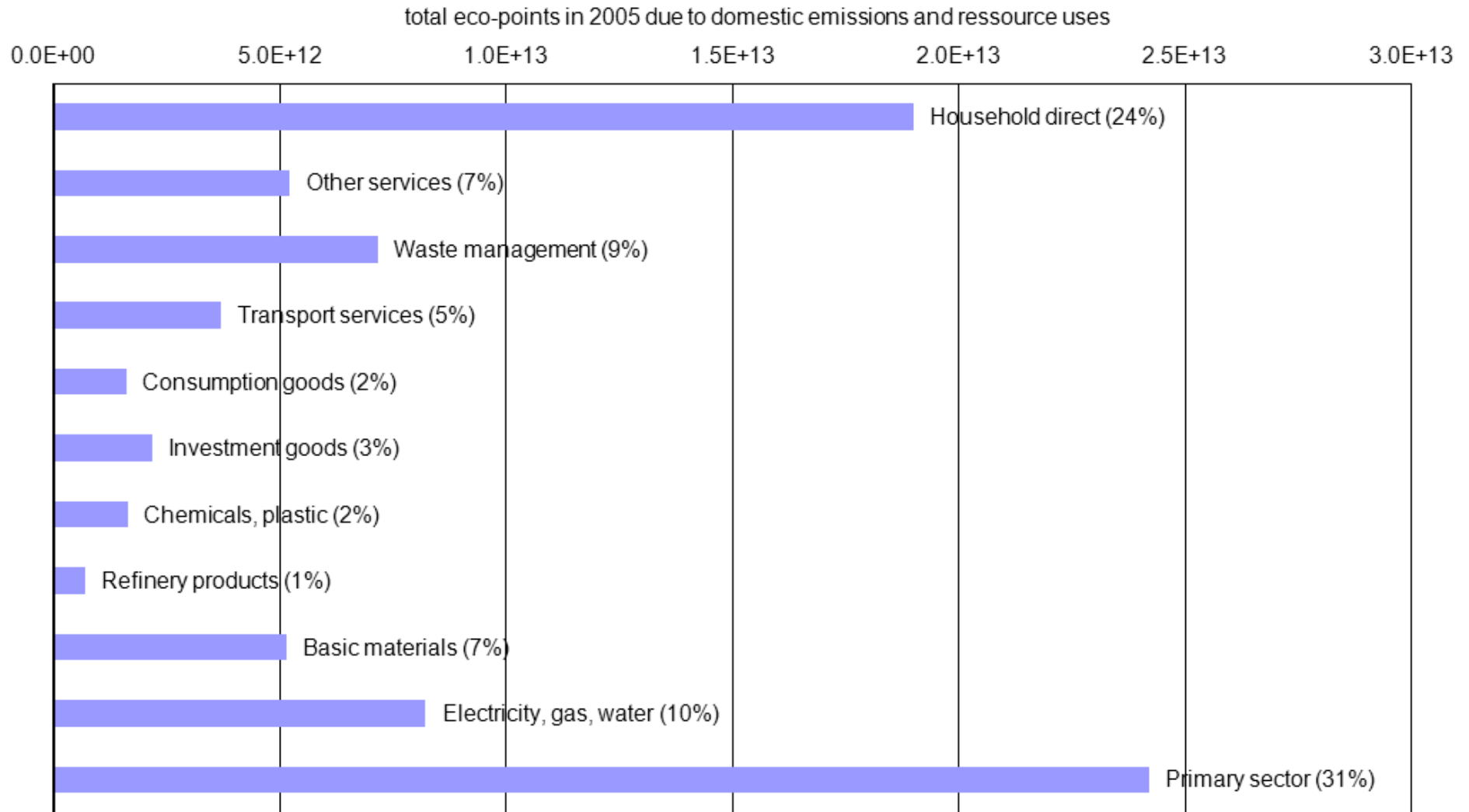
- Production perspective takes the view of direct impacts in a country
- Consumption perspective investigates the impacts due to national consumption

Combination of methods and data



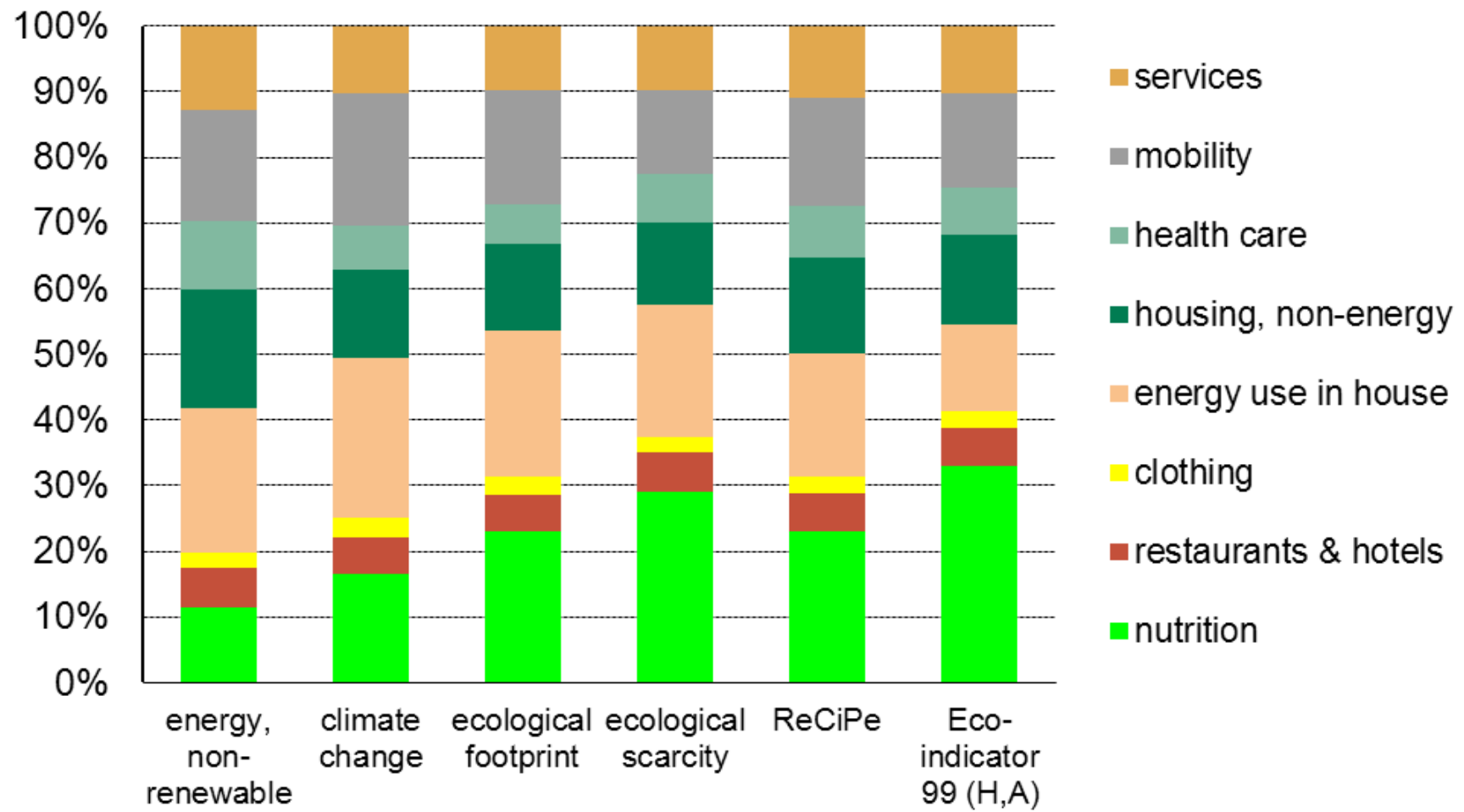
➤ Several data sources are combined for the analysis

Production perspective



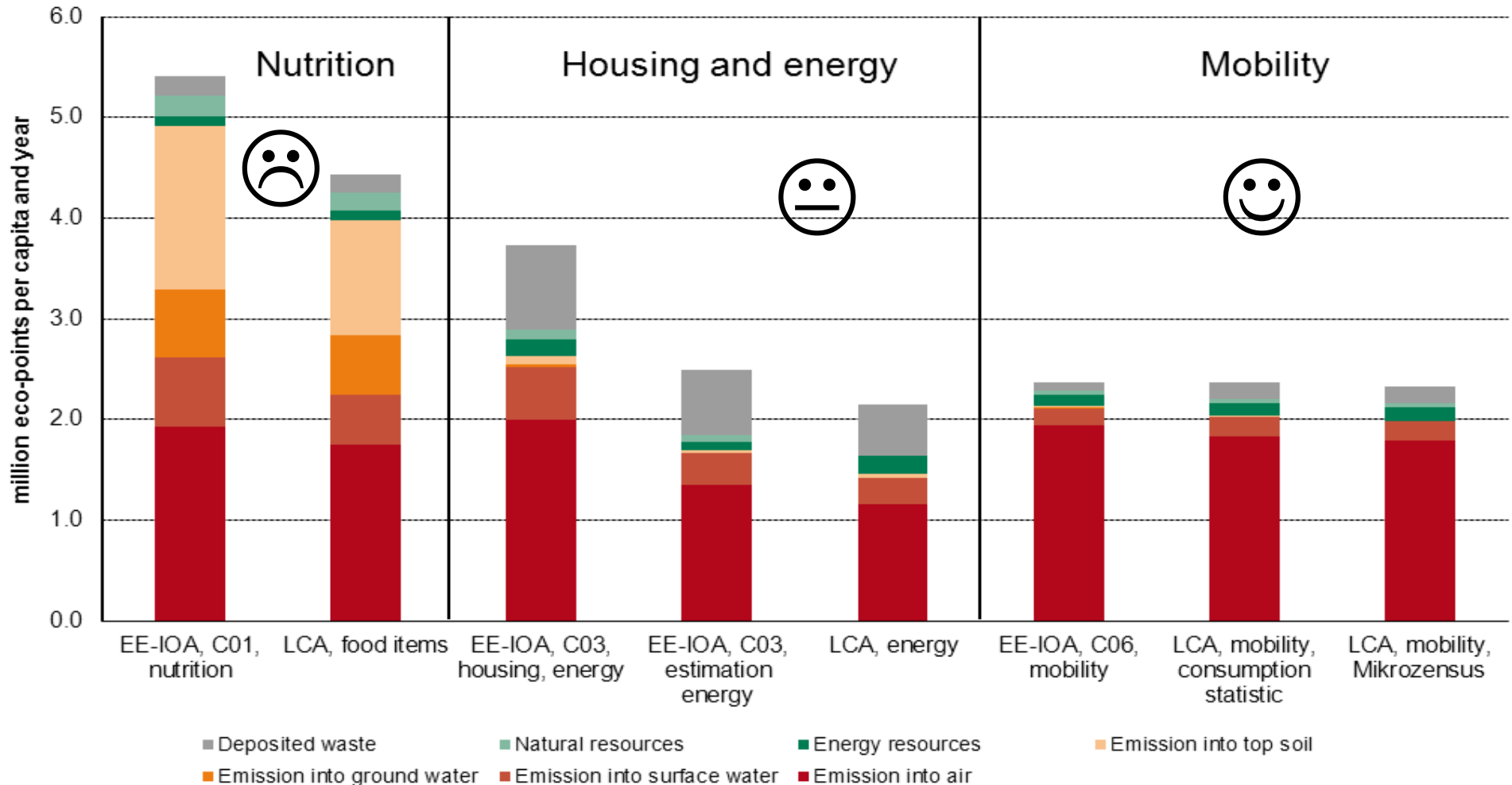
➤ Primary sector most important for domestic emissions

Different indicators on household consumption



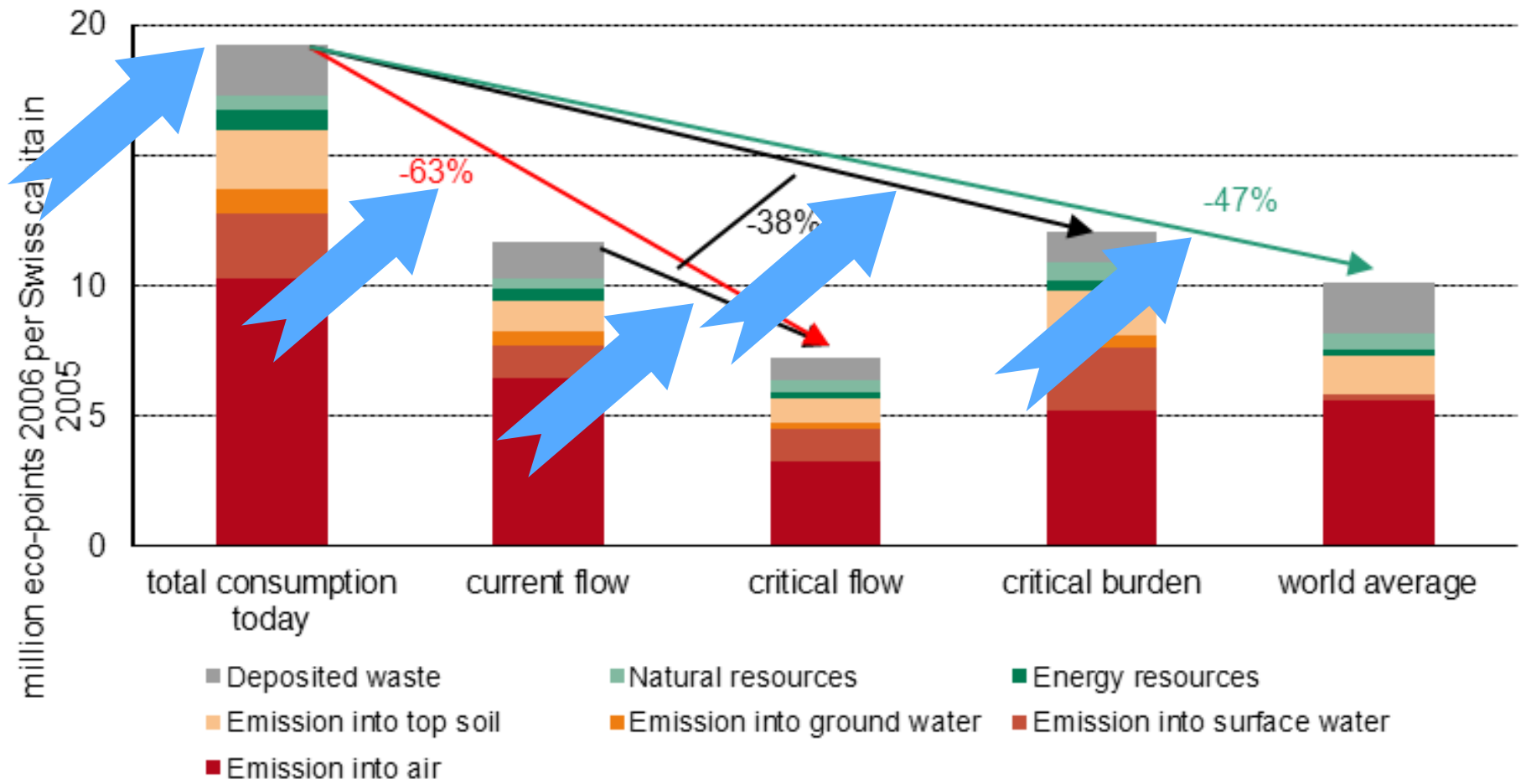
➤ Energy and GHG indicators underestimate the contribution of nutrition

Verification by comparison with LCA data



➤ Uncertainties estimated in the range of 20-30%

Setting targets



➤ 40% to 60% reduction of total impacts is necessary


Conclusions

- The combination of LCA and IOT provides a good possibility for investigating environmental impacts of consumption
- Imports to Switzerland account for 60% of environmental impacts
- Consumption of food accounts for 30% of total impact
- Considerable reductions of environmental impacts are necessary

Outlook

- Ten principal data sources and steps of analysis can be refined with three different goals:
 - Better verification of the results in LCA and EE-IOA with additional or alternative approaches
 - Improve the data for 2005 for known shortcomings
 - Update for a new reference year

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