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Tracking the environmental costs
of Swedish consumption

PRINCE - Policy relevant indicators for national consumption and environment

2015-2018
EPA research grant
SCB, SEI, Chalmers, KTH, NTNU, CML & TNO

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Main objective

- To understand and quantify the environmental impacts associated with Swedish consumption, both in Sweden and abroad.

- The Generational Goal states that the overall aim of Swedish environmental policy is to hand over to the next generation a society in which the major problems in Sweden have been solved, <u>without increasing environmental and health problems outside Sweden's borders</u>.

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Main issues

- What is the environmental pressure of Swedish consumption abroad and nationally?
- How can it be monitored in a consistent and policy-relevant manner?
- The indicators developed for government and household consumption.
- Measurement distinguish product groups and identify which have the largest environmental impacts (such as meat, vegetables, fuels, clothing, transportation).

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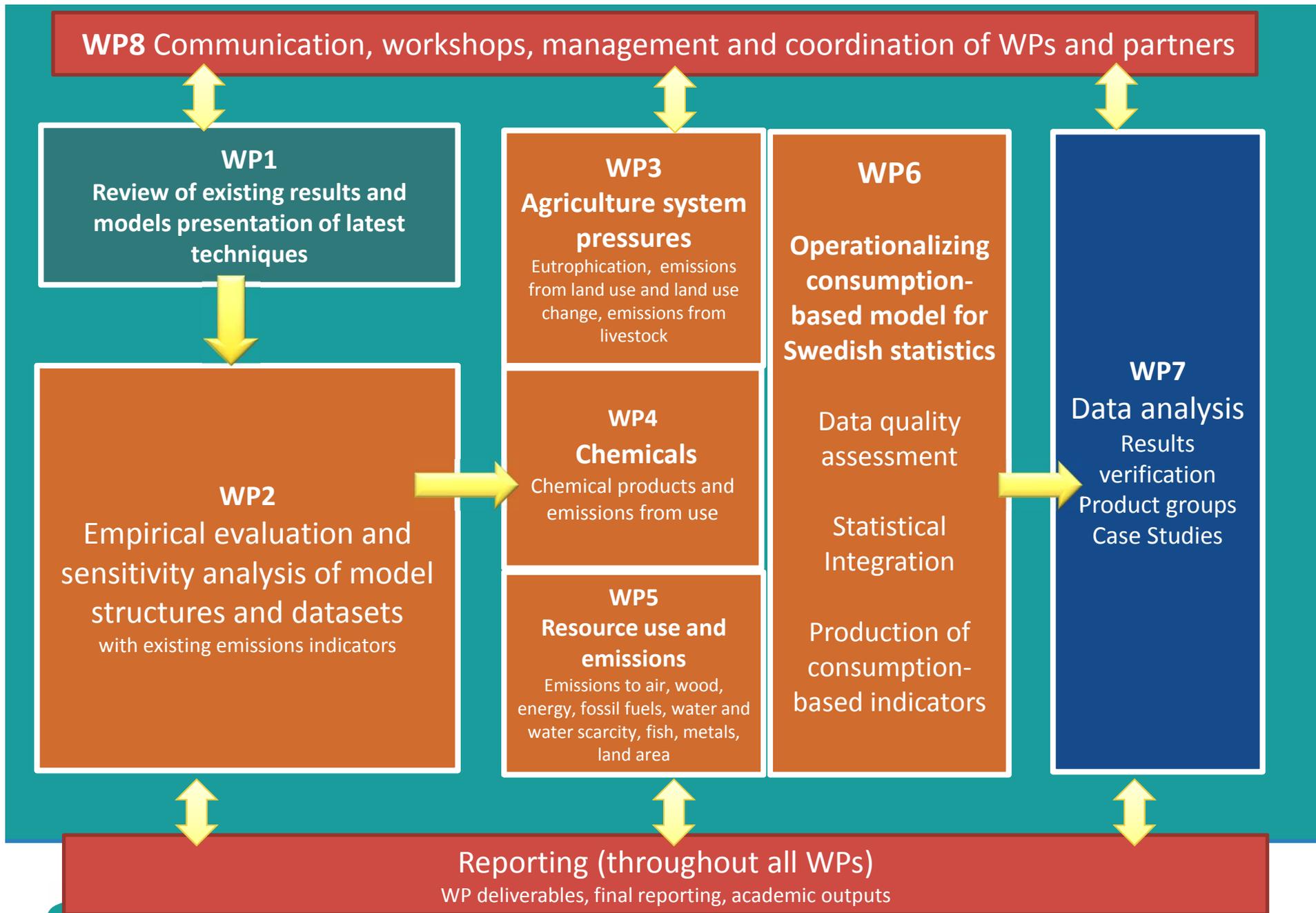
Environmental extensions

- Pollutants:
  – Emissions of greenhouse gases and traditional air pollutants;
  – Chemicals
- Resource use:
  – Land and water use
  – metals, fish and timber
  – Chemical use, nitrogen and phosphorus

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Review of existing methods, models, data and footprint calculations for Sweden

Main findings:
- 4 global MRIOs covering 11 environmental extensions
- CO_2 available in all models and shows consistent trends
- Identification of reasons for differences between models
- Presented modelling options for workshop

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- Choosing a model for future indicators is a question of continuity and of enough disaggregation
- Sources of variation between models
  - Macro economic input data
  - Model construction and data processing
  - Environmental input data

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PRINCE hotspot analysis initial findings

- **Water**
  - Variation between models: EORA has over half of total water footprint originates from Sweden, Exiobase says only one quarter of the footprint is in Sweden.
- **GHGs**
  - **Models in agreement on hotspots:** Sweden ~40%, RoW ~15%, China ~8%, Russia ~6%, Germany ~4%
- **Value added**
  - **Models agree that the** majority of VA footprint is from Sweden (+70%), RoW/Germany (3-5%), UK and USA (around 2%), then France, Finland and Denmark (1-2%).

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