

**ENVIEVAL**

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Institute of Farm Economics

# ENVIEVAL PROJECT

## SNAPSHOT OF THE HANDBOOK — STEP-BY-STEP GUIDANCE THROUGH LOGIC MODELS

ENVIEVAL consortium

November 2015

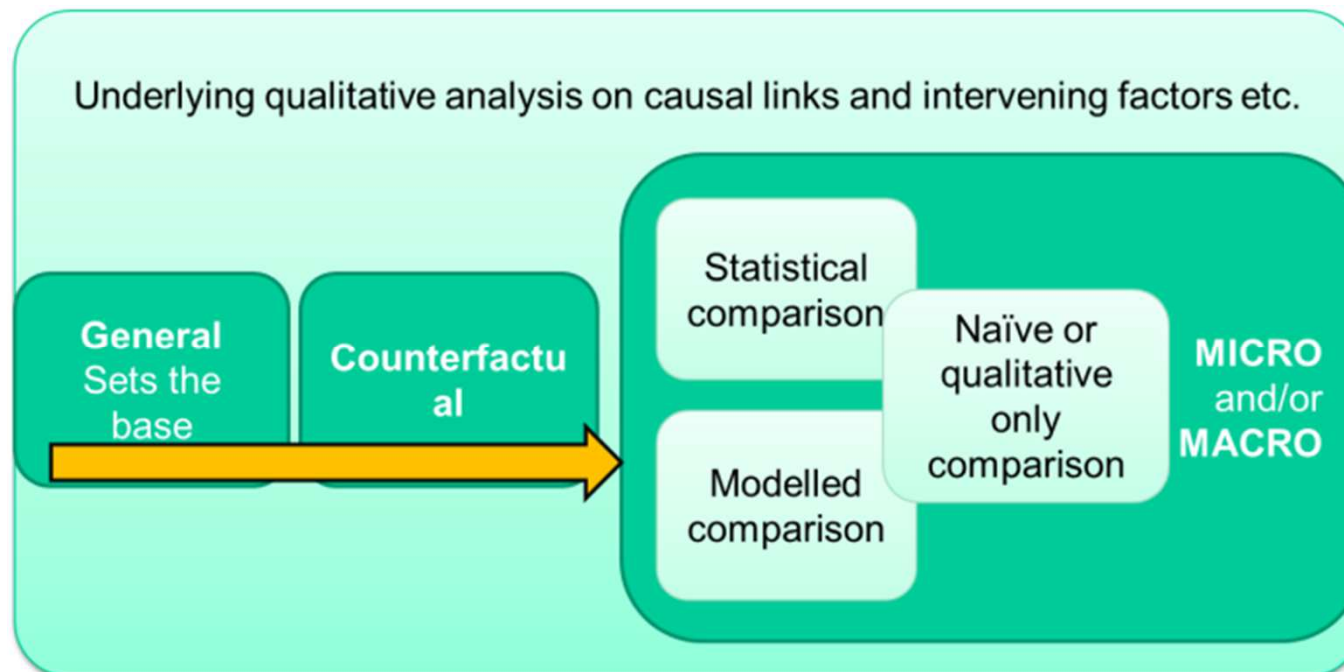


## Structure

- Purpose and general aspects of the logic models
- Step-by-step guidance and examples for key questions to be addressed

## Purpose and general aspects of the logic models

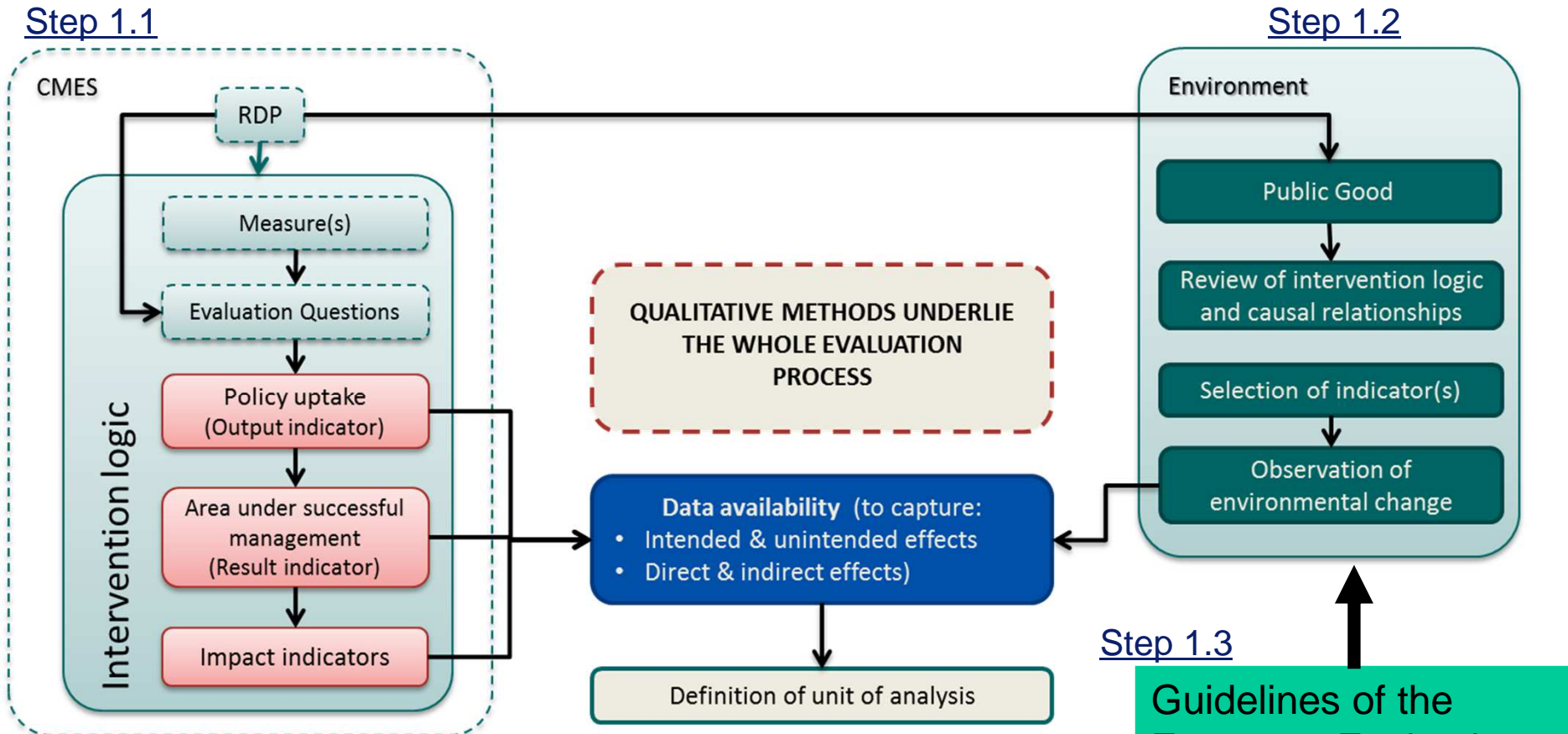
- General approach applied:
  - Logic models as the conceptual basis for developing a methodological handbook
  - Nested structure of different layers



## Purpose and general aspects of the logic models

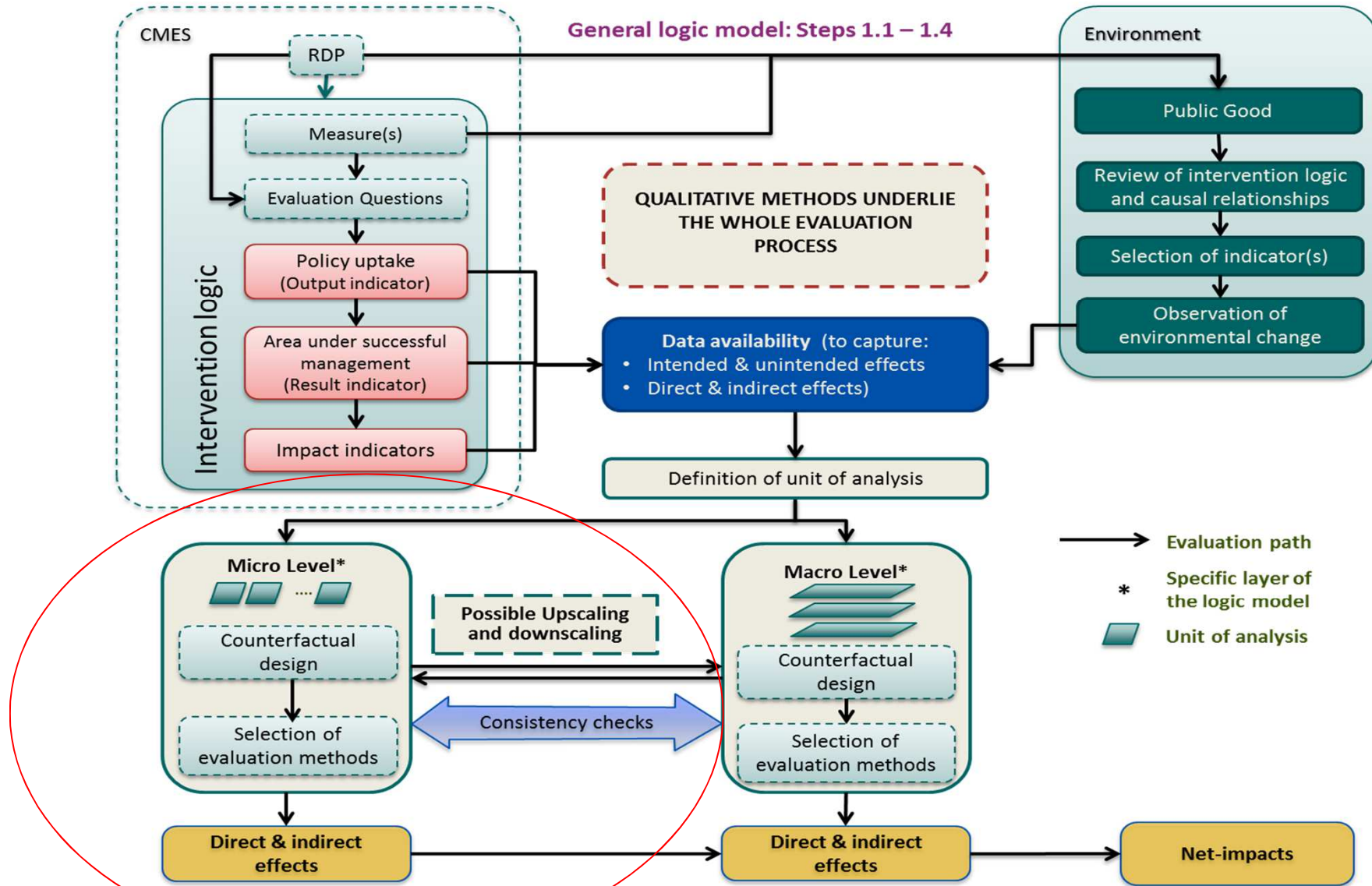
- Step-by-step guidance on the design of evaluation approaches to enable understanding:
  - POSSIBILITIES: what are available suitable combinations of data/indicators/methods to answers the evaluation questions and/or
  - REQUIREMENTS: what data/indicators/methods are required to answer certain evaluation questions
  - CONSEQUENCES: what implications have the decisions at the different steps for the cost and effectiveness of the evaluation
- 👉 Guidance and decision-support for the design of evaluation approaches
- 👉 Example for a counterfactual-based micro level evaluation
  - Evaluation of biodiversity effects of an agri-environmental measure

# Logic model: General layer – indicator selection



- Can I use the Farmland Bird Index (FBI) to cost-effectively evaluate the selected measure? Do I have sufficient data to use the indicator at micro level?
- Which other biodiversity indicator can I use to generate robust evidence at micro level supporting impact assessments with or without the FBI? Do I have sufficient data to use the selected indicator?

# Logic model: General layer



# Logic model: Counterfactual design at micro level

Outcome of the general layer:

- Selected indicator: Number of farmland bird species
- Unit of analysis: Survey points

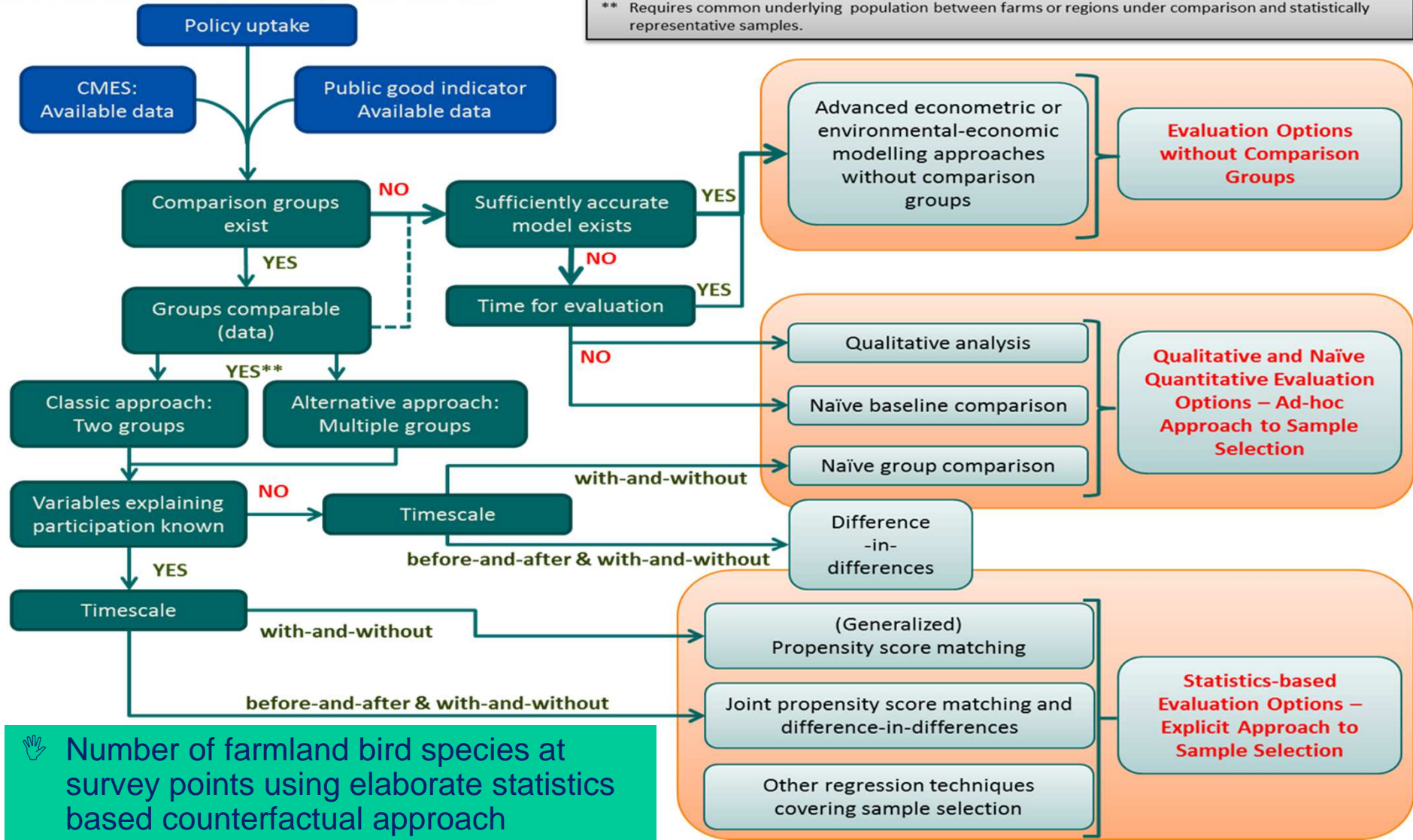
Key questions to consider in the design of the counterfactual:

- What options are available to construct a counterfactual?
- Does the implementation and uptake of the evaluated measure(s) allow to construct a control group?
- To what extent do I have data on other factors influencing farmland biodiversity?
- Do I have data for the selected biodiversity indicator for different points in time (before and after) for participants and non-participants?
- Can I cost-effectively use robust statistics based methods to quantify biodiversity net-effects of the evaluated measure(s)?
- Or do I need to consider alternative (ad-hoc) options to consider sample selection issues?

# Logic model: Counterfactual design at micro level

## Counterfactual layer: Steps 2.1 and 2.3

\* Assuming used indicator causally matched to the unit of analysis, farm or region.  
 \*\* Requires common underlying population between farms or regions under comparison and statistically representative samples.





# Logic model: Micro level

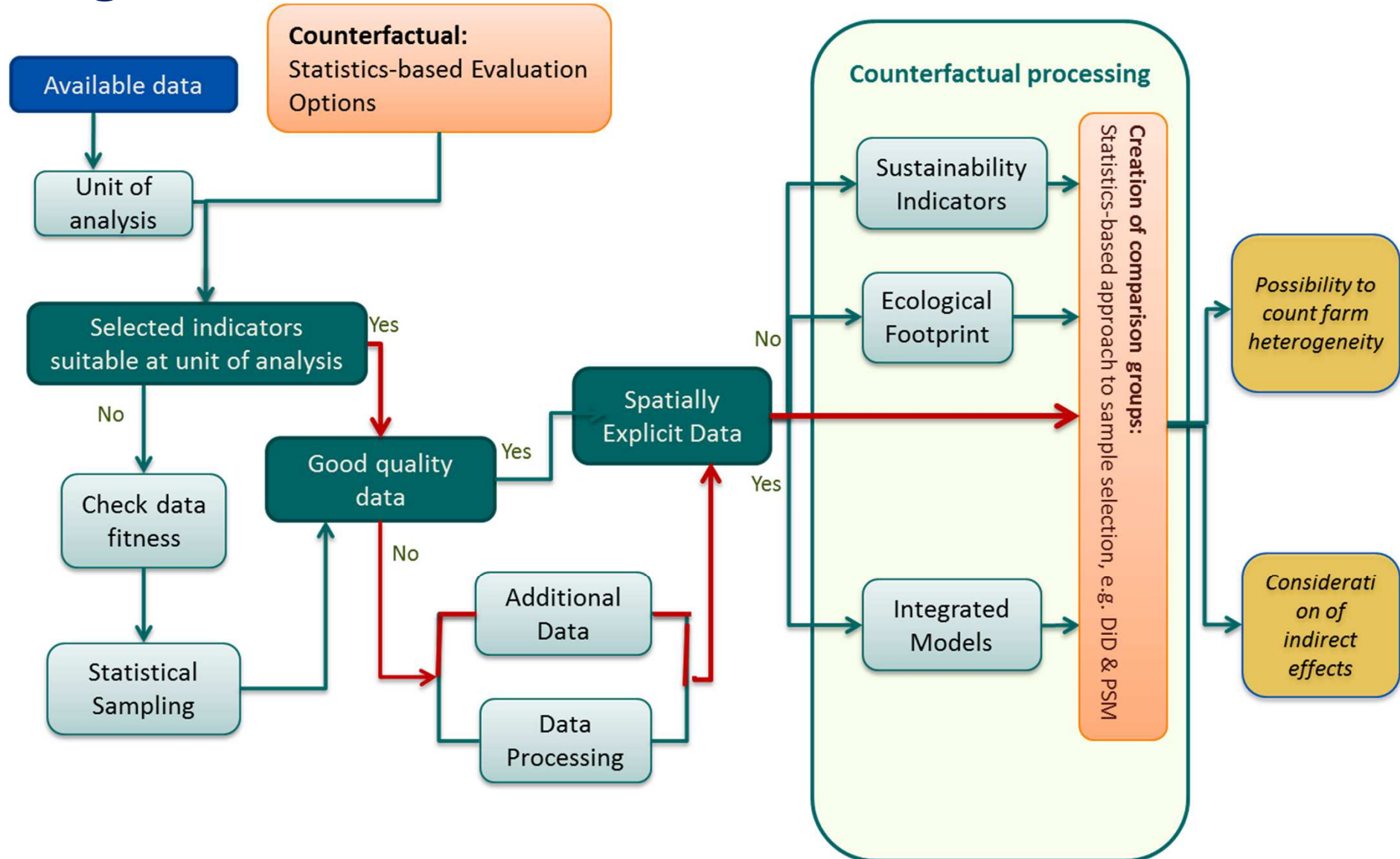
Two principal options:

1. The indicator can directly be quantified from the environmental monitoring data or secondary statistics
2. The quantification of the indicator requires a specific “environmental” method to be applied

Some key questions to consider:

- Do I need to apply a specific environmental method to quantify indicator changes or can I directly use the indicator values with counterfactual methods?
- If yes, is the amount and characteristics of data appropriate to implement one of the methods available for environmental impact evaluation?
- Do I need to collect new primary data through statistical sampling?
- Is there need for specific processing tasks to improve the quality of the survey / monitoring data?
- What are the implications for the costs of the evaluation and its potential performance?

# Logic model: Micro level



## Application of the logic models: some key issues

- Iterative process and application
- Will be supported by concrete examples from the case studies
- The handbook will explain the different options in each step in detail and with examples.
- The logic models assist:
  - Evaluators to find a sound evaluation design for the task at hand
  - Managing authorities to assess the feasibility of impact evaluation plans and/or the quality of evaluation results
- Fact sheets will provide indicator and method specific information in the annex