Pick and Play!?
A (SES) Modeller‘s Utopia

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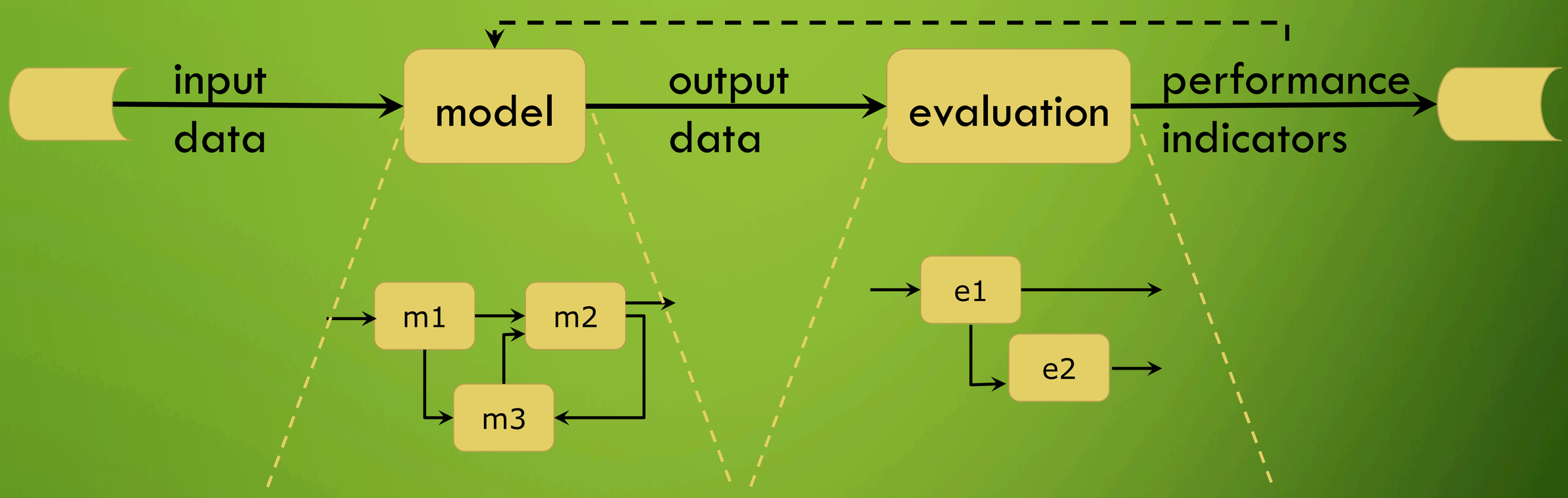
The Problem

Modelling socio-ecological systems (SES) in order to analyse their resilience or sustainability poses a number of challenges:

- What to model (system boundaries, interactions)
- Probably combining different modelling paradigms (SD, ABM)
- Deciding temporal/spatial scales
- How to integrate social and ecological subsystems
- Which resilience measures to choose
- …

General simulation experiment



The (Dream) Solution: A Model and Evaluation Method Base for SES

Providing tried and tested models / methods or model components that a modeller can pick and choose from, re-combining them as needed for their particular purpose. Only parts that are not already in the model base need to be newly implemented. The new, combined model then becomes part of the model base.

Problems to be solved:

- Suitable model component interface (how do models communicate?)
- Suitable model components (small enough to be useful in more complex models)
- Suitable simulation infrastructure (how to run the combined model?)
- …

Background

The research project MOBILE (Model Base for an Integrative View of Logistics and the Environment) achieved a prototype of this for traffic simulation.

L. M. Hilty, R. Meyer, T. F. Ruddy: *A General Modelling and Simulation System for Sustainability Impact Assessment in the Field of Traffic and Logistics*. In: C. Rautenstrauch, S. Patig (eds.), Environmental Information Systems in Industry and Public Administration. Hershey, PA; London: Idea Group Publishing, 2001, S. 167-185