

# Systems Approach Framework

## System Formulation

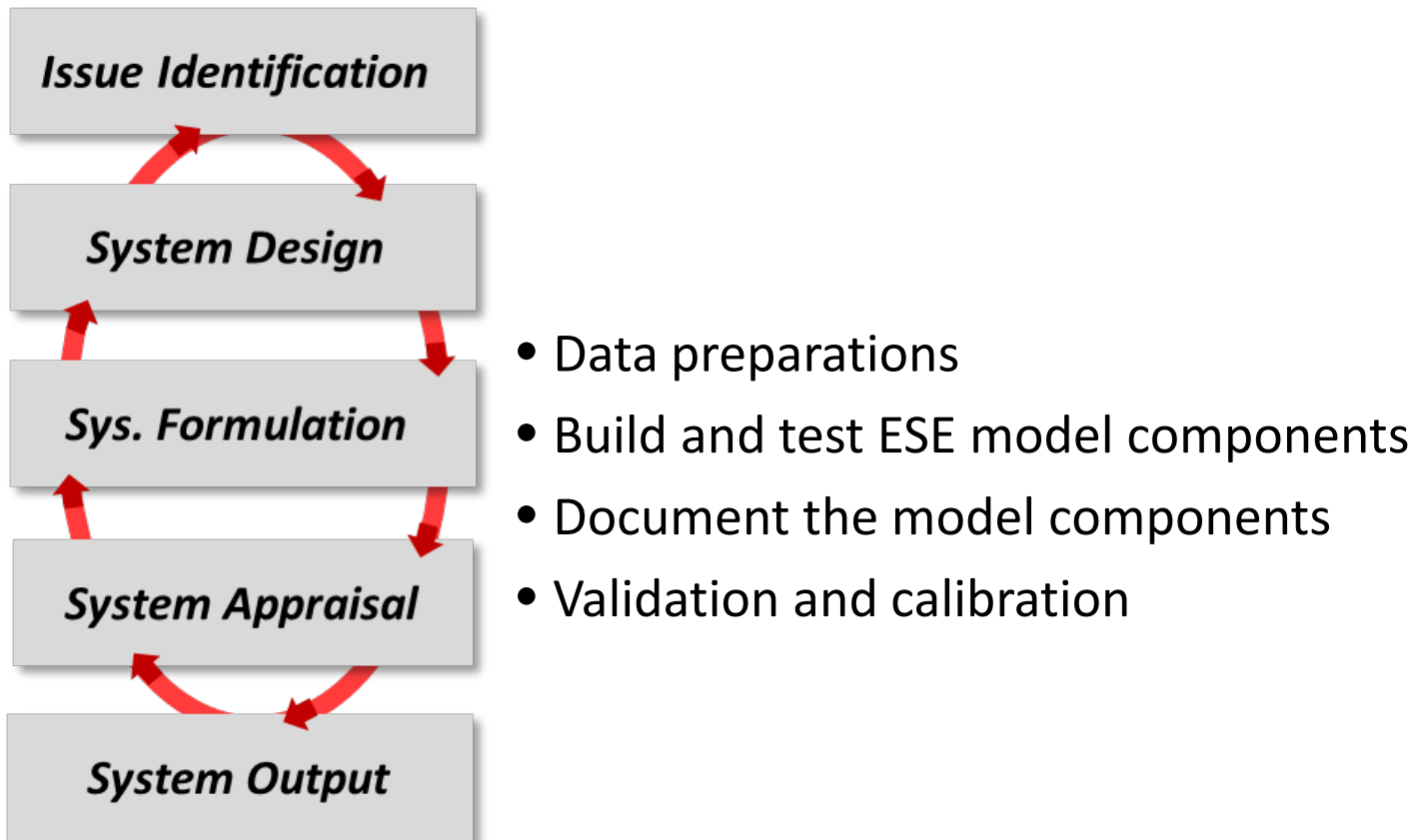
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**A Systems Approach Framework  
for Coastal Research and Management  
in the Baltic**



## System Formulation





## System Formulation

### Data preparations

- Identify and assemble data inputs and variables
  - Acquire, analyse and use of Input data
  - What to do in absence of existing data?
  - Clarify specifics of scenario choices with Reference Group
  - Choose social responses linked to Ecological/Economic Component
  - Consider if you need auxiliary models for specific processes
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- Get data for ESE assessment
  - Prepare a table with information on data
  - Revise your conceptual model to better illustrate the bio-economic model



## System Formulation

### **Build and test model components**

- Describe model processes and functions
  - Make and test functional units
  - Assemble and test simulation sub-models
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- Describe the formulas used for each model block and component
  - Describe software, auxiliary models
  - Discuss results of calibration, hindcast simulation and sensitivity analyses



## System Formulation

**Document the model components** (this will be as an Appendix to the report).

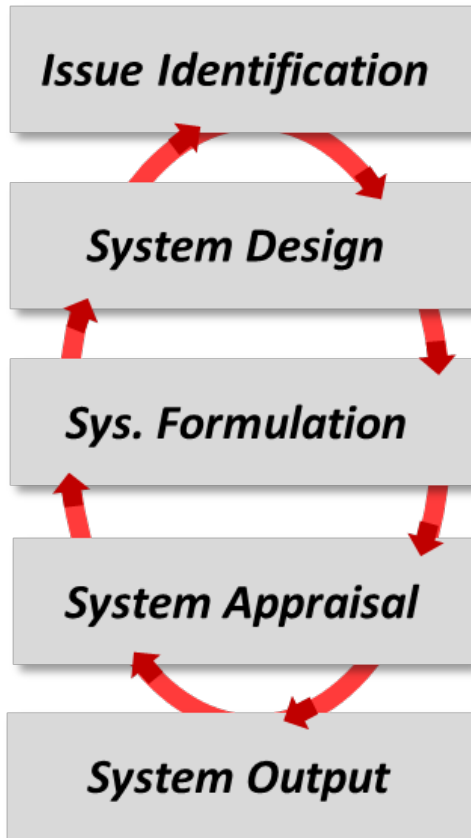
- document with references, data, rates and variables used.
- document changes made to your data/model and why

- General model description
- Scenarios chosen



# Systems Approach Framework

## System Appraisal

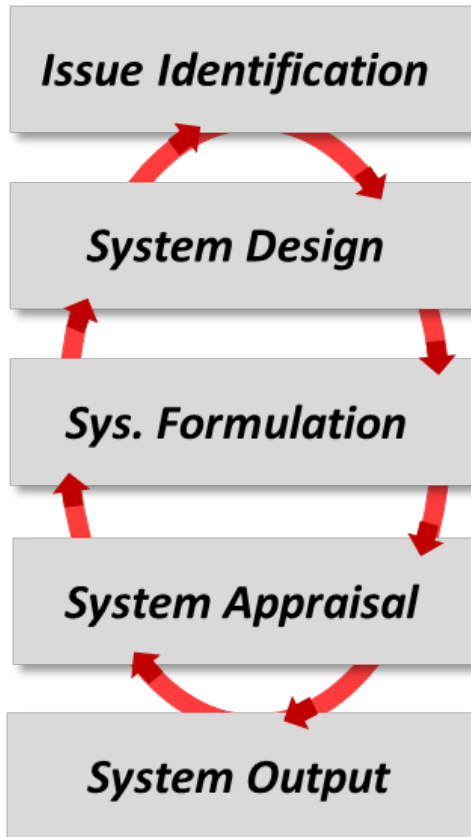


- Linking ESE model components to generate ESE Systems model
- Calibration, validation and sensitivity tests
- Preparing scenario simulations
- Output preparation



# Systems Approach Framework

## System Output



- Run scenario simulations
- Prepare for Stakeholder presentation of scenario results
- Conduct Stakeholder meeting and management option deliberations for Implementation