

CURRENT STATE OF LONG-TERM MODELLING IN LITHUANIA

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General state

- Lithuanian Energy Institute
 - National Energy Strategy
 - Evaluation of social and macroeconomic impacts
 - Guidelines for emission forecasting
- Kaunas University of Technology
- Vilnius Gediminas Technical University
- ...



National Energy Strategy

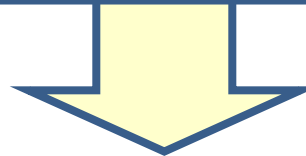
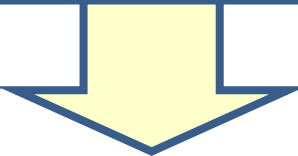
Scenario analysis of energy sector development and operation



Evaluation of energy security for energy sector development scenarios



Analysis of macroeconomic impact of energy sector development scenarios

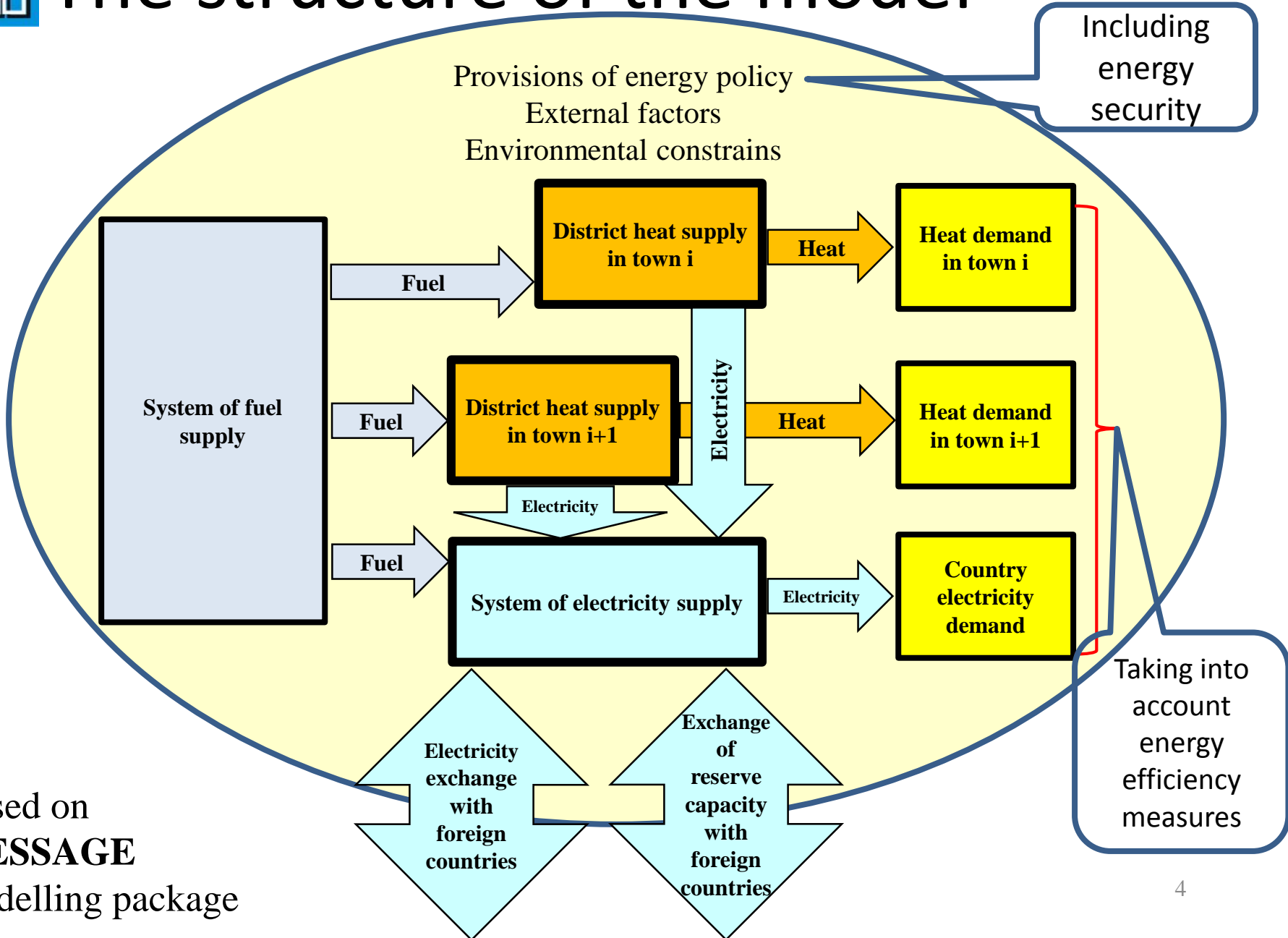


Preparation of the National energy strategy project





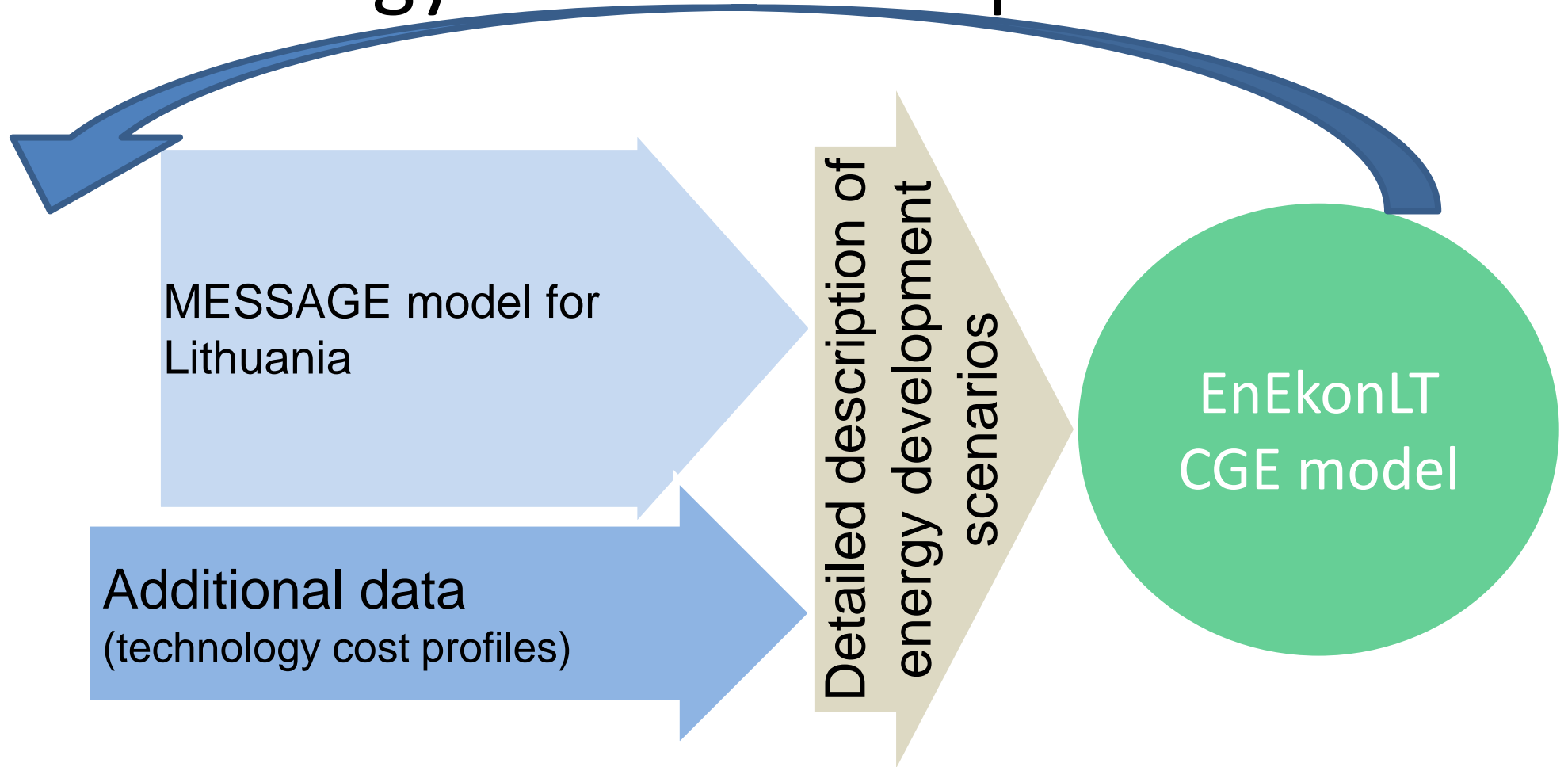
The structure of the model



Based on
MESSAGE
modelling package




Analysis of macroeconomic impacts of energy sector development





REEEM (H2020 RIA Project)

- Baltic energy security case study (Finland, Estonia, Latvia, Lithuania)
- District heating case study (Helsinki, Kaunas, Warsaw)
- Ecosystem services case study (Lithuania)
- Carbon leakage and competitiveness
- Distributional impacts of energy transition
- Etc.



BRILLIANT (H2020 CSA Project)

- Trainings and guidance for Estonian, Latvian, and Polish energy modelers
- Long-term energy development models for Estonia, Latvia, Lithuania, and Poland connected to the multi-regional model
- BRImpacts model



Modelling tools

- **MESSAGE** (Model for Energy Supply Strategy Alternatives and their General Environmental Impact) is the main tool used for long-term energy development modelling
 - Additional in-house developed tools for energy planning
- EnEkonLT – CGE model to evaluate macroeconomic impacts of energy development pathways (recursive dynamics up to 2050)
- In-house developed emission forecasting tools
- Other tools



Links between policymaking and modelling

- Deep involvement in some stages of preparation of National Energy Strategy
- Occasional projects
- Different means of stakeholder engagement
- Other involvements in different stages of policy-making



International linkages

- MESSAGE tool is developed by International Atomic Energy Agency
 - Participation in development and spread of the model
- International projects
- Knowledge exchange
 - Conferences
 - Trainings in Sweden, Philippines, Rwanda, etc.
- Review and evaluation activities (H2020 projects, emission inventories, etc.)



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