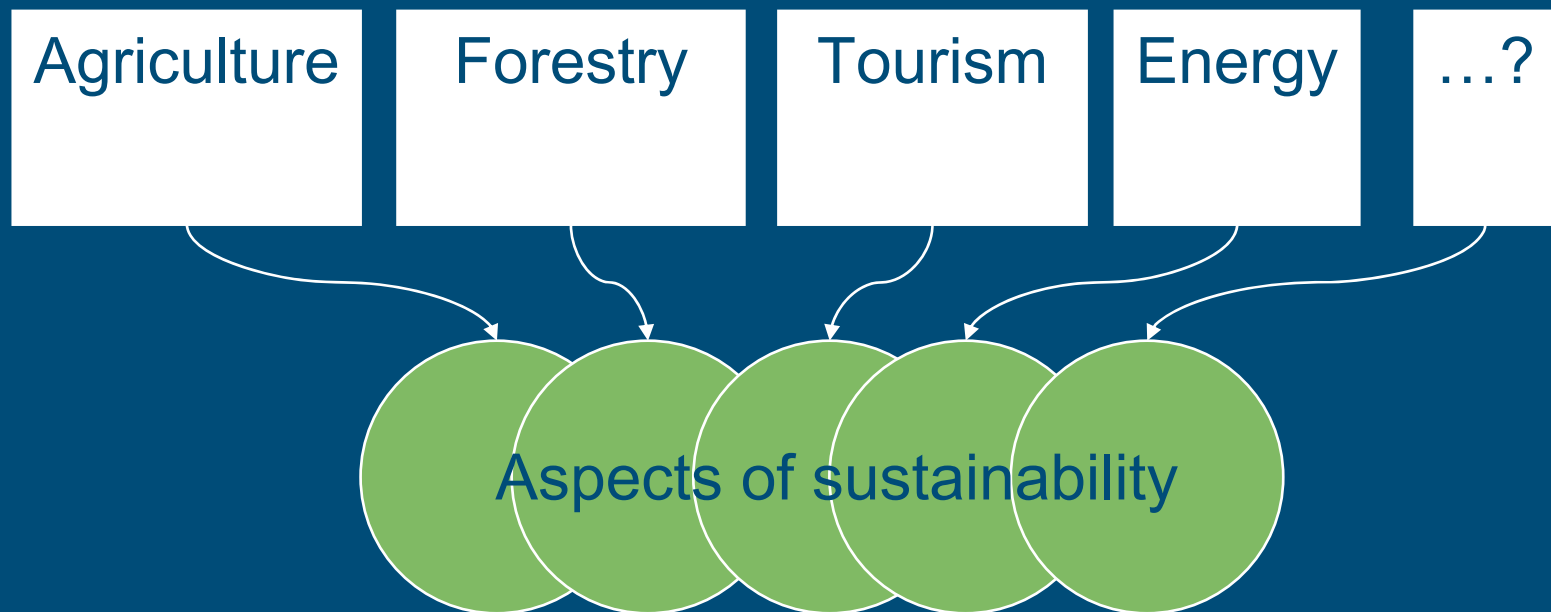


# Modelling land use policies

- Torbjörn Jansson
- Martha Bakker
- Baptiste Boitier
- Arnaud Fougeyrollas
- John Helming
- Hans Verkerk
- ... and many more!!!

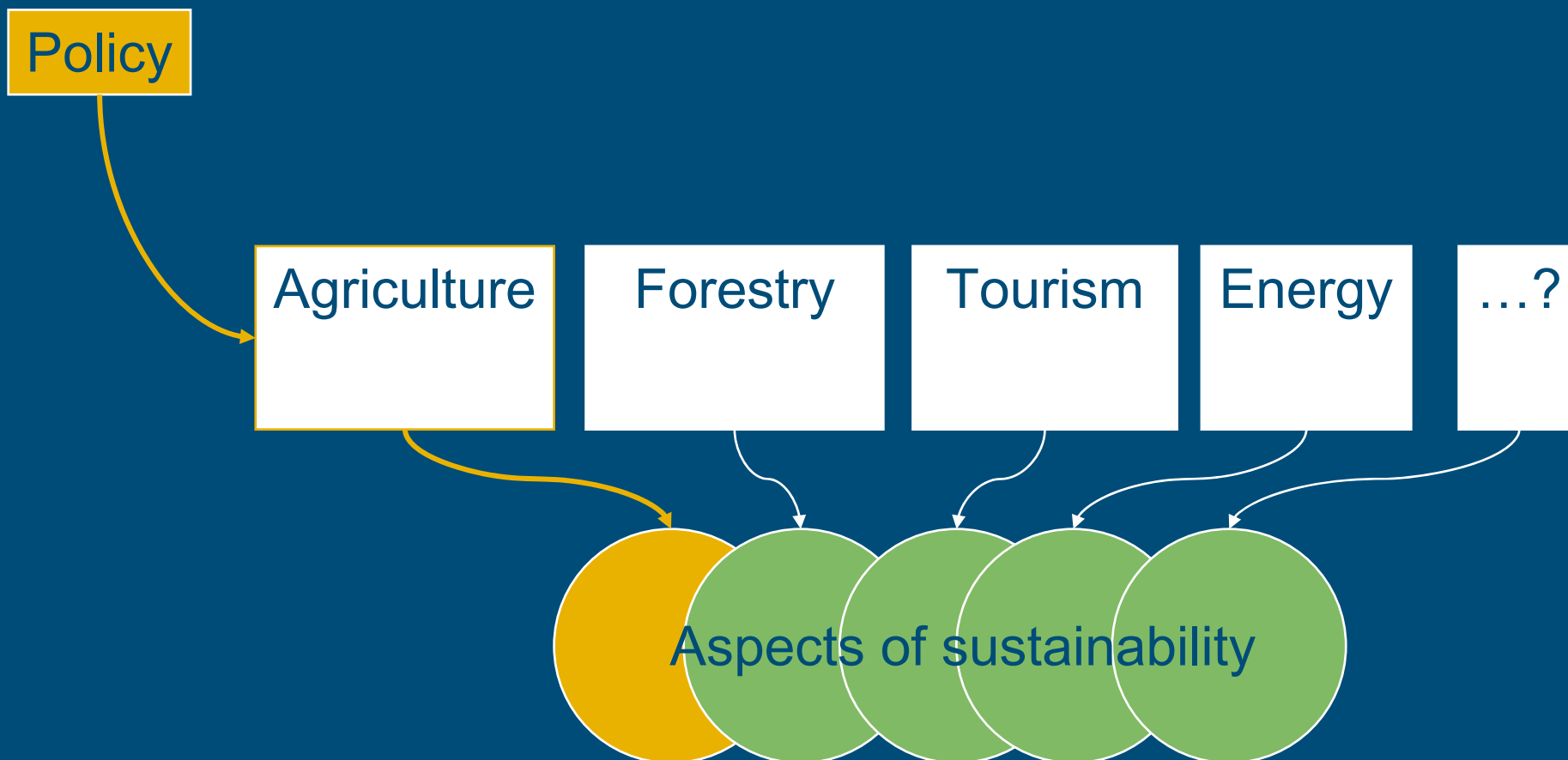


# Many sectors influence sustainable land use

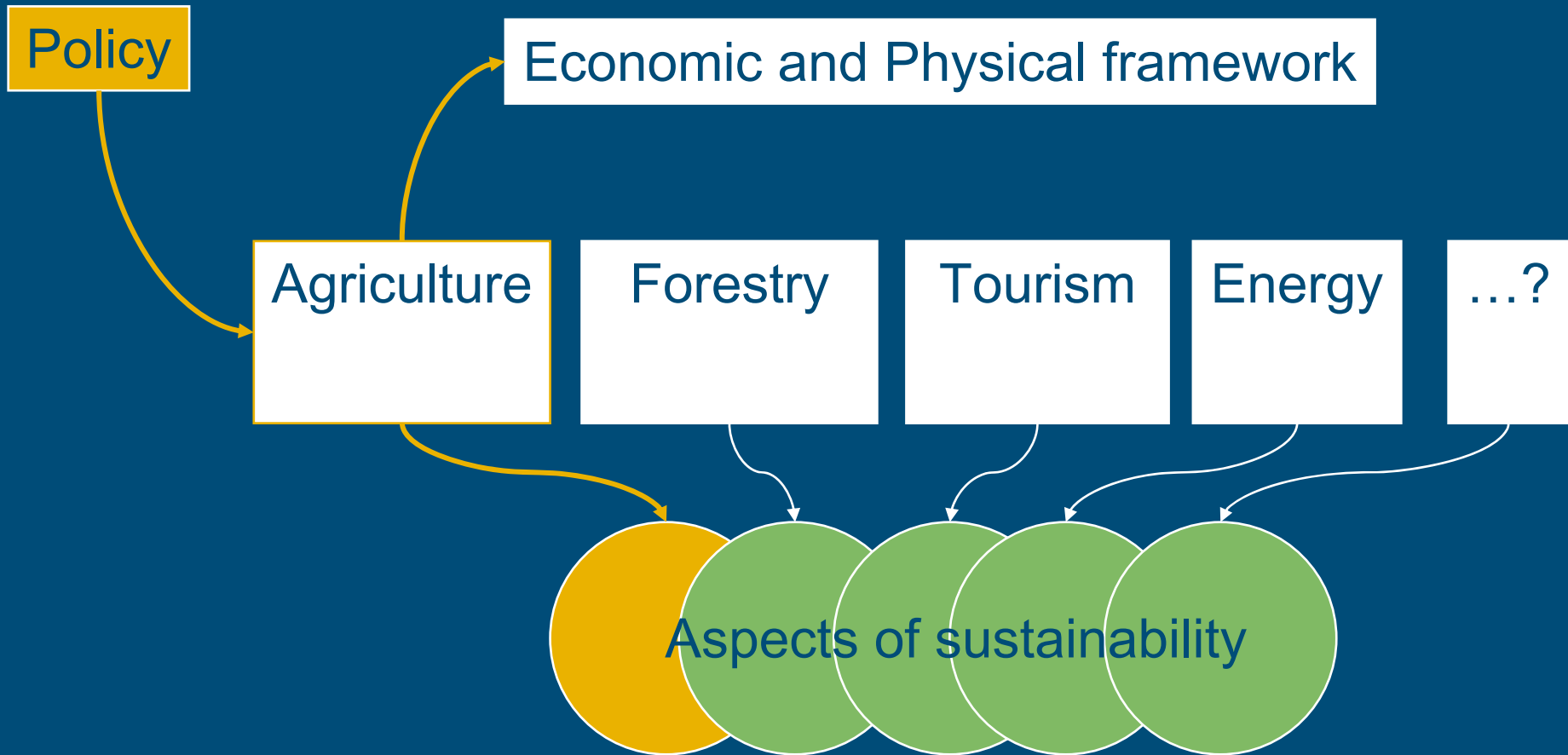


# Policies target specific sectors

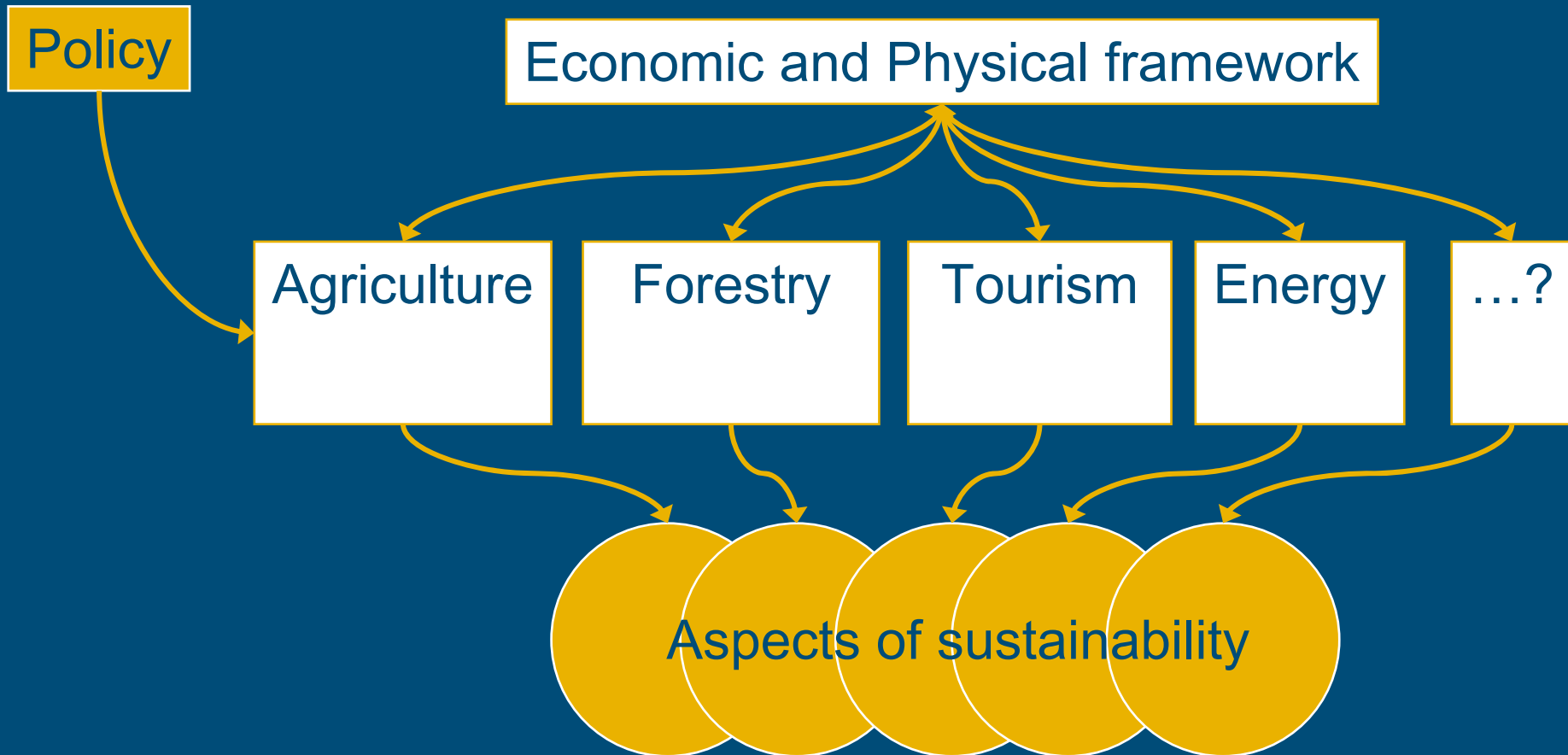
– first order impacts!



# Sectors interact



# Considering interaction gives fuller picture



# Integration of models

Economic and Physical framework

NEMESIS + CLUE + ...

Agriculture

Forestry

Tourism

Energy

...?

CAPRI

EFISCEN

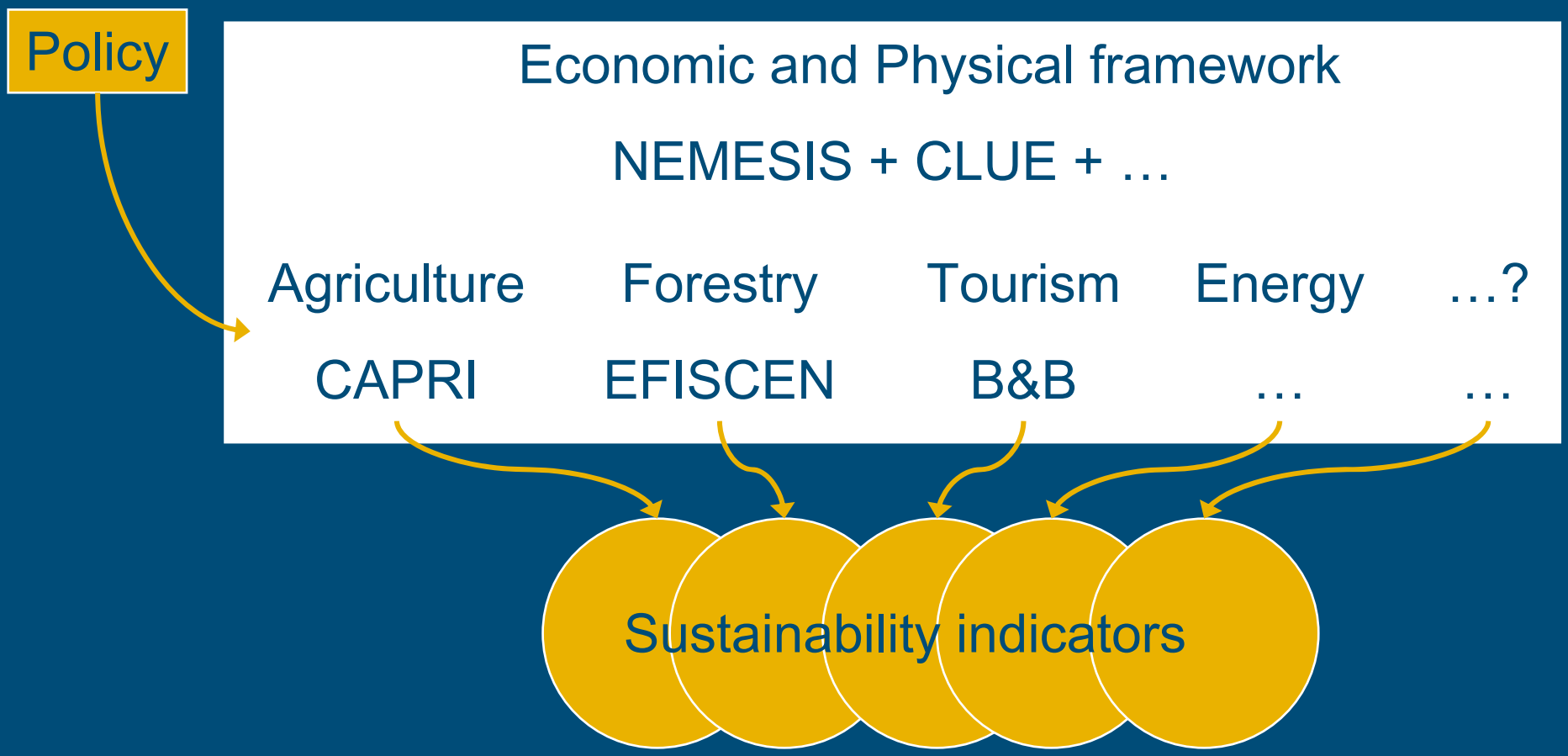
B&B

...

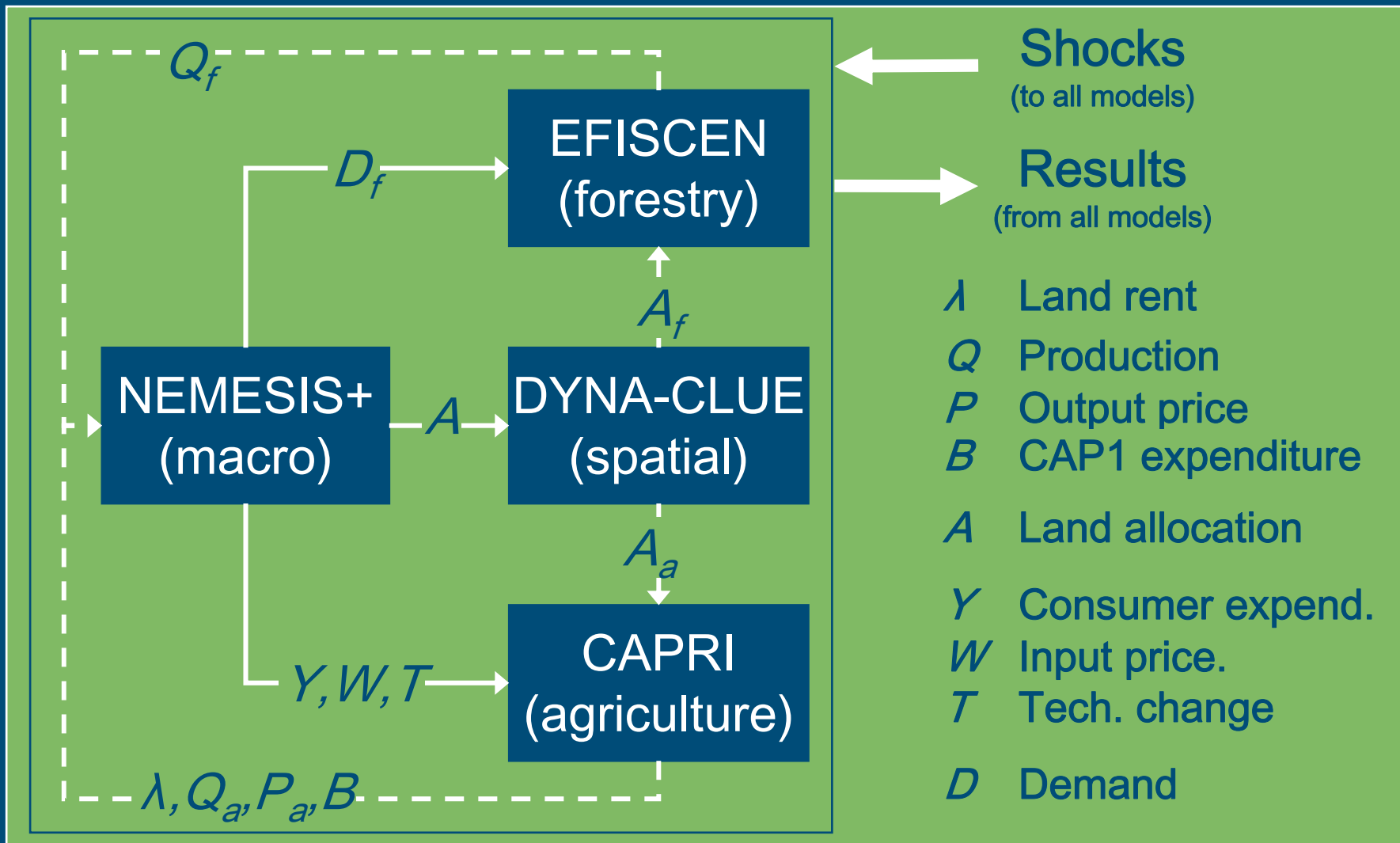
...



# Modelling setup



# Linked Models





# Some technical aspects

- Iterative recalibration of NEMESIS
- Simple “expectation” model in CAPRI
- All models run in different software on different places – FTP file exchange

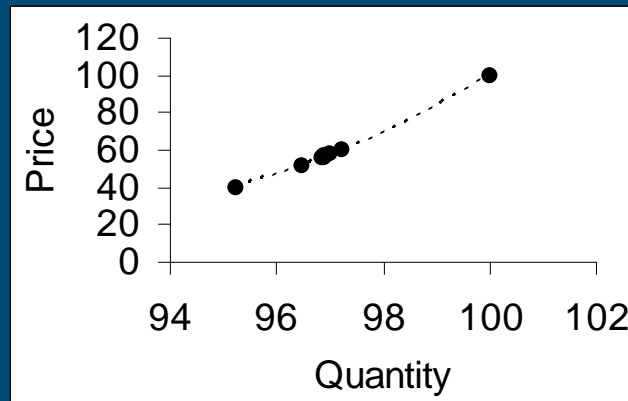


Figure 2:  
Derivation of the  
NEMESIS ag. land  
supply function

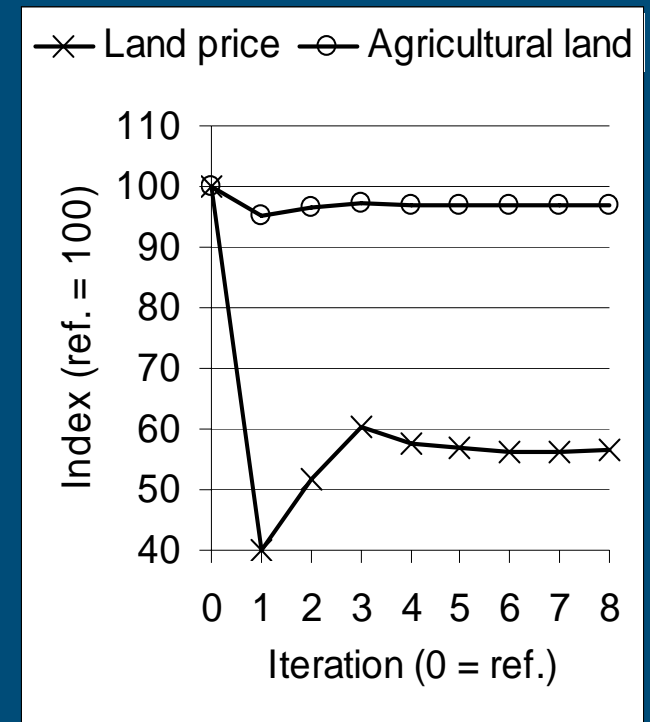


Figure 1: Convergence on land price

# Capabilities

- Wide range of policies can be analysed
- Consistent picture across sectors
- Shock any sector, impact on any indicator

# Remaining challenges

- Some links are missing
  - External trade
  - Labour and capital prices
  - Intermediate input structure agriculture
- Speed
- Automation

# Lessons for the future

- Clear joint system design required
  - Software development overhead
  - Stick to standard model for maintenance
- Knowledge transfer between modelling teams
  - should we all be experts of all involved models...?
  - ... or is “black-box” approach possible?

# Thank you for your attention

© Wageningen UR



# Linked Models

