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A learning tool for sustainability at a mixed ecological farm

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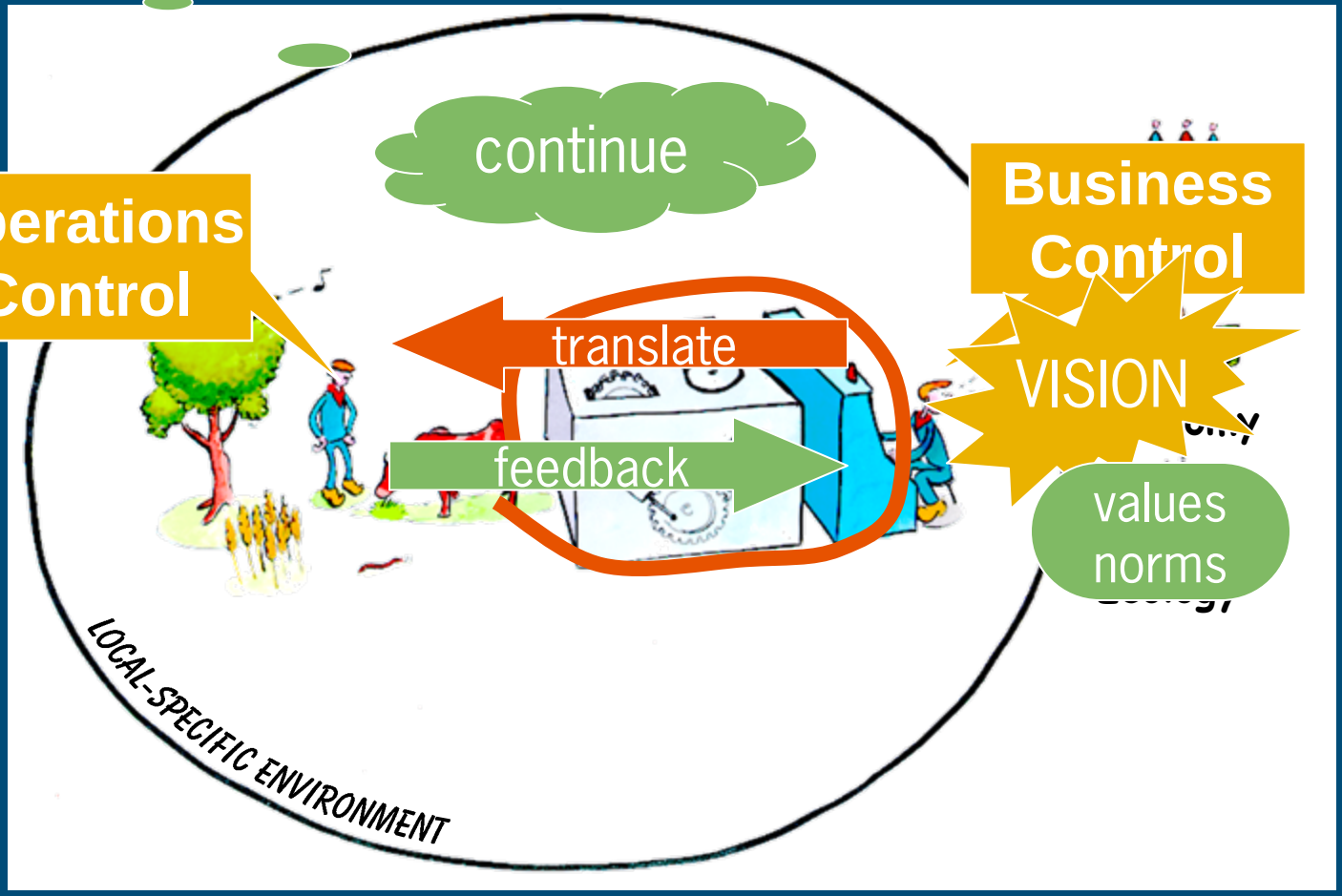
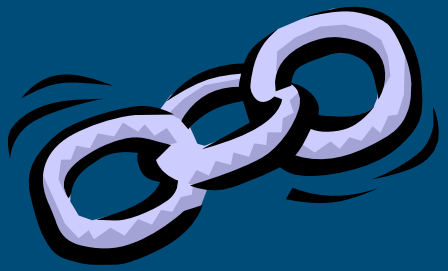
Sustainable Farm Systems



Mixed ecological farming

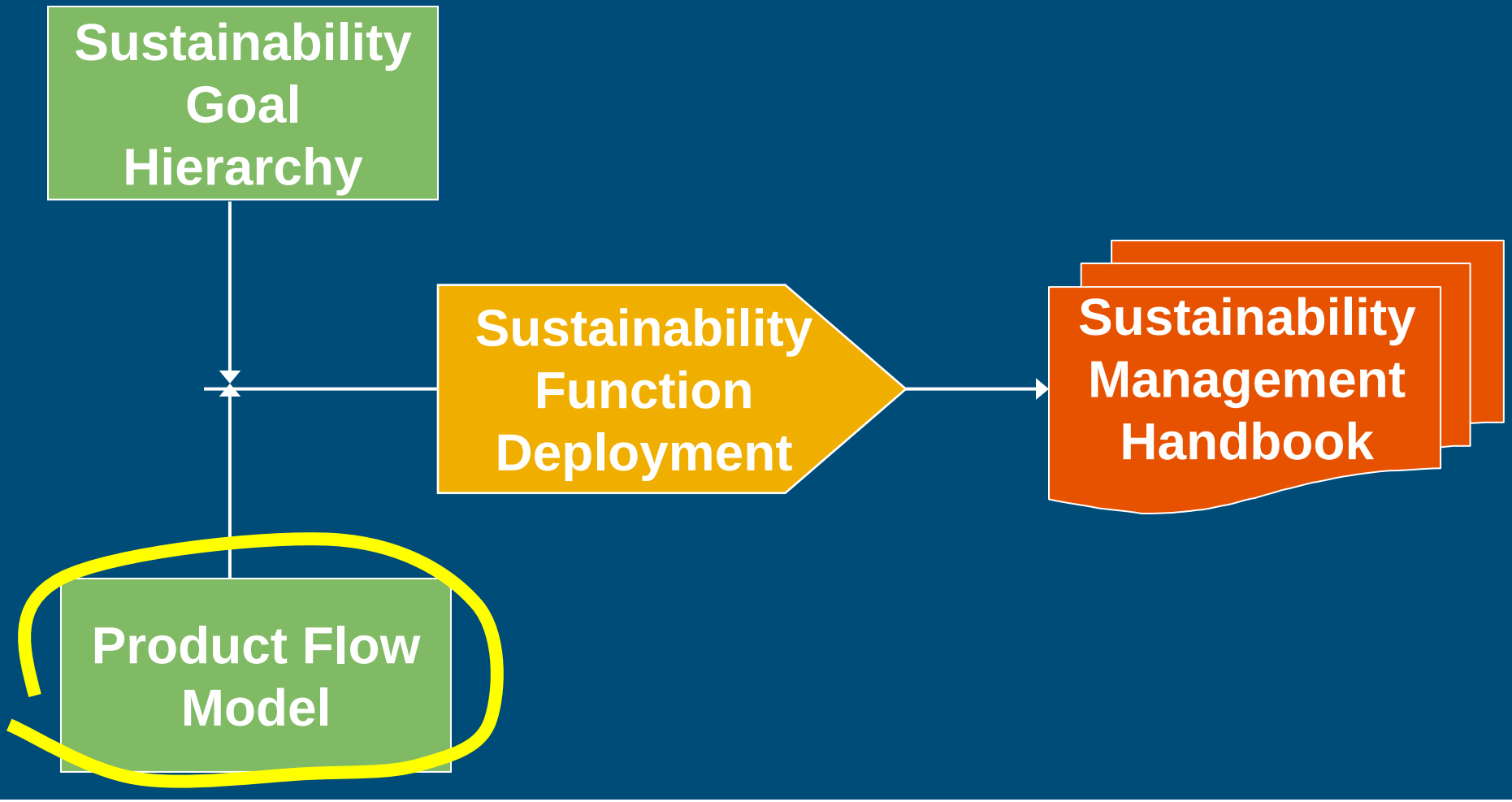
- Management characteristics:
  - NO quick-acting instruments
  - Prevention
  - Recycling
  - → Chain Management



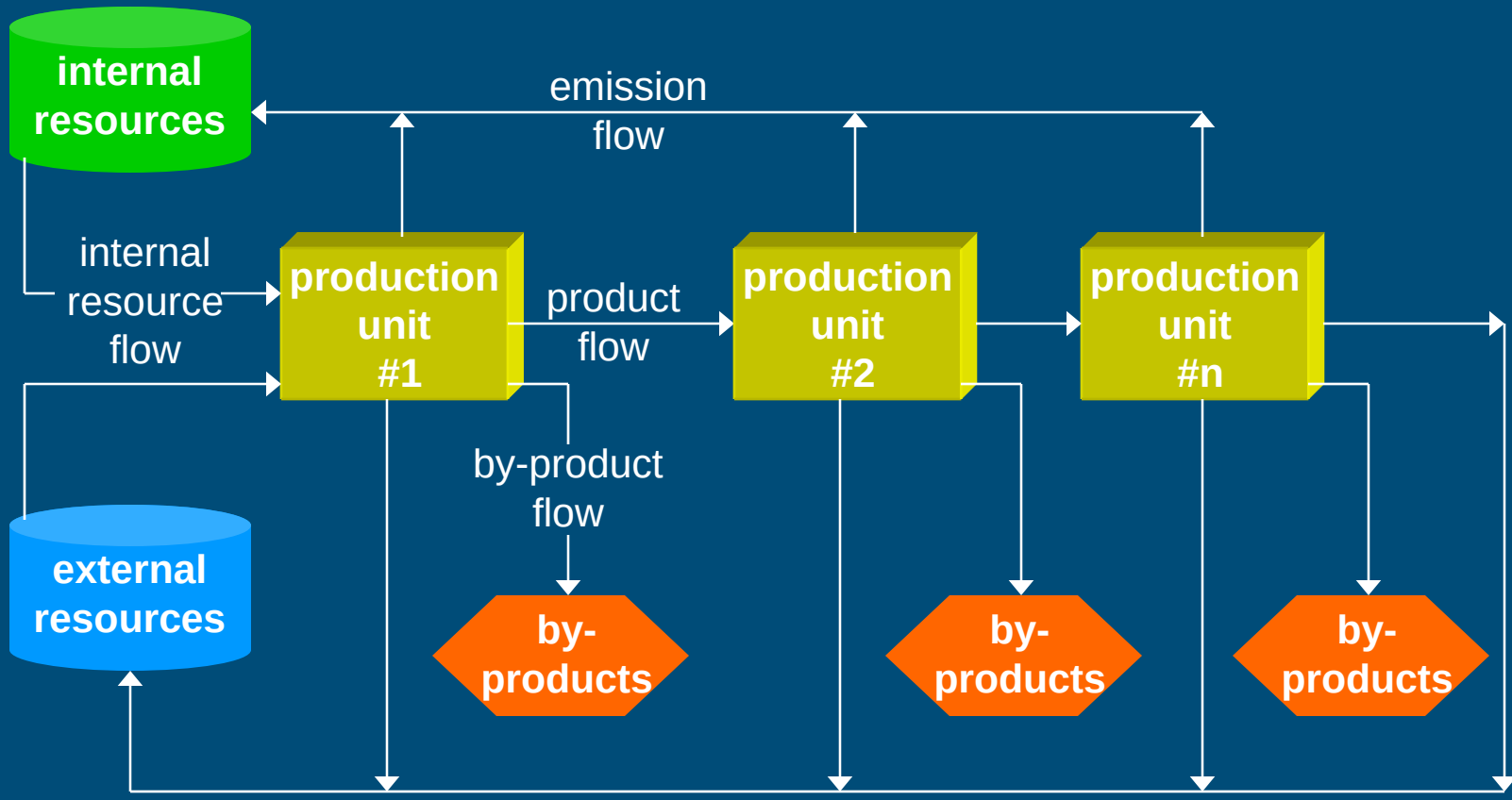
Management Control

- Negotiation (values/norms)
- Heuristic Problem Solving (learning)
  - Unstructured ➔ Structured
- Operational Control (habituation)

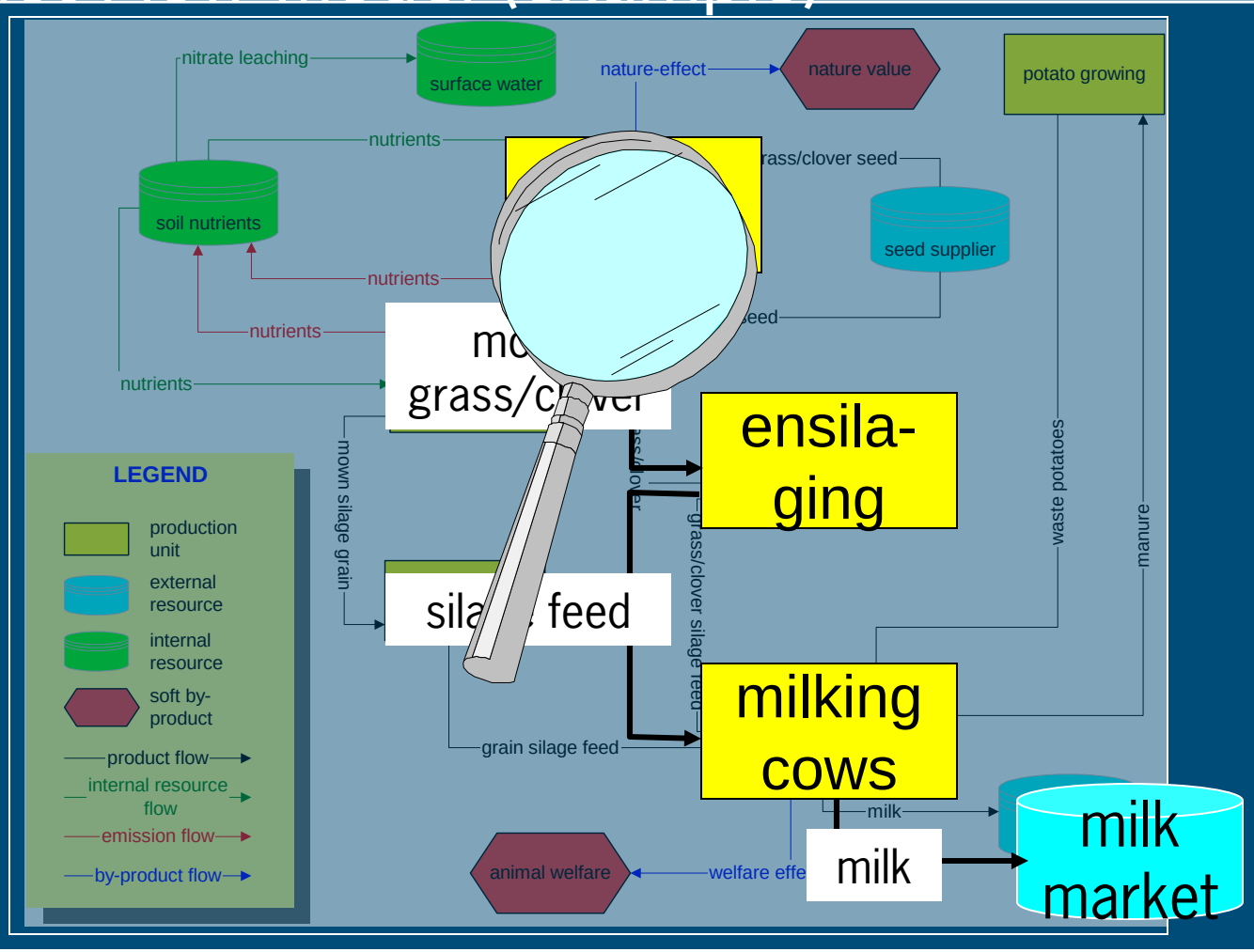
MC model structure and system development



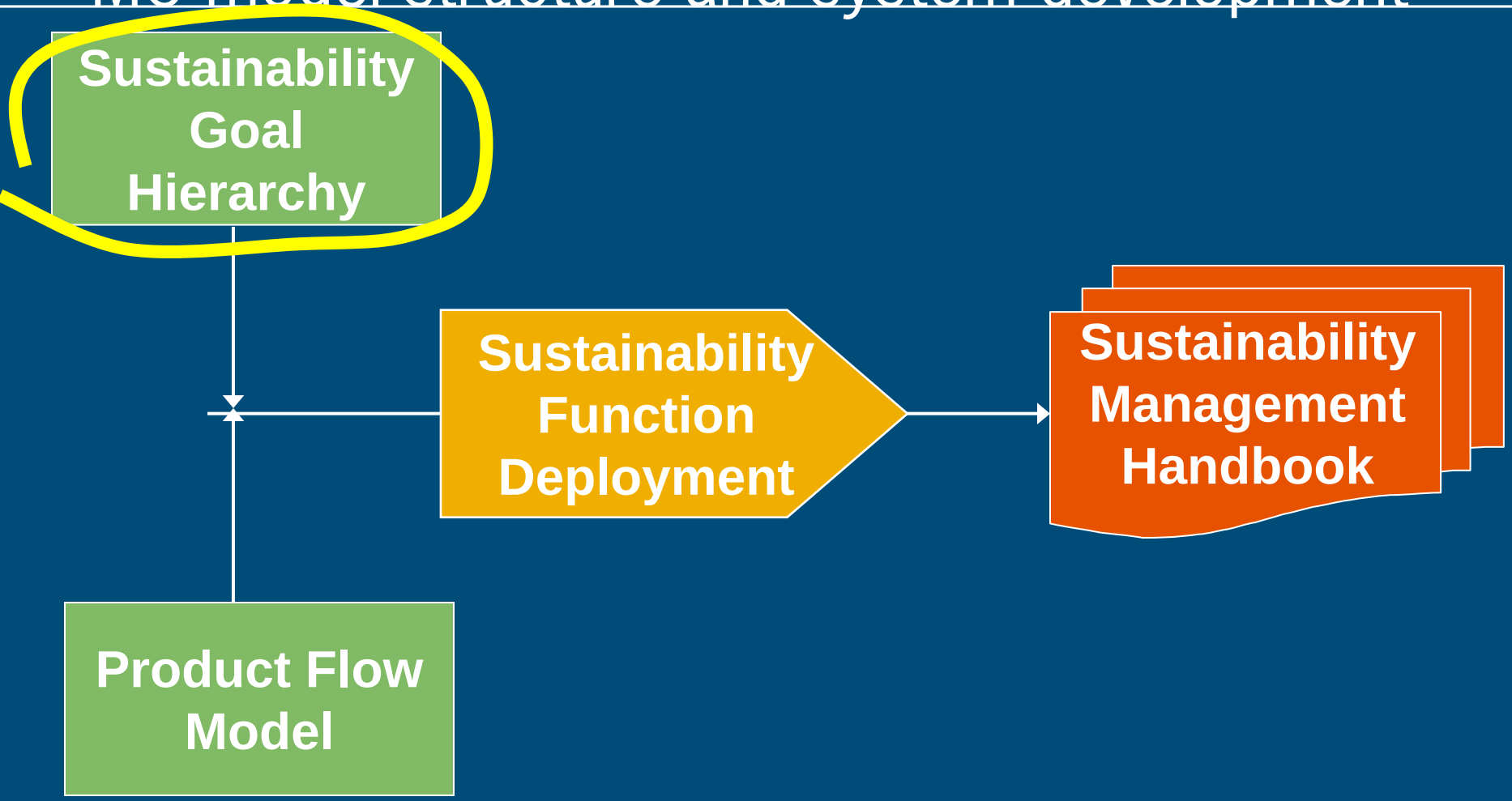
Product Flow Model (template)



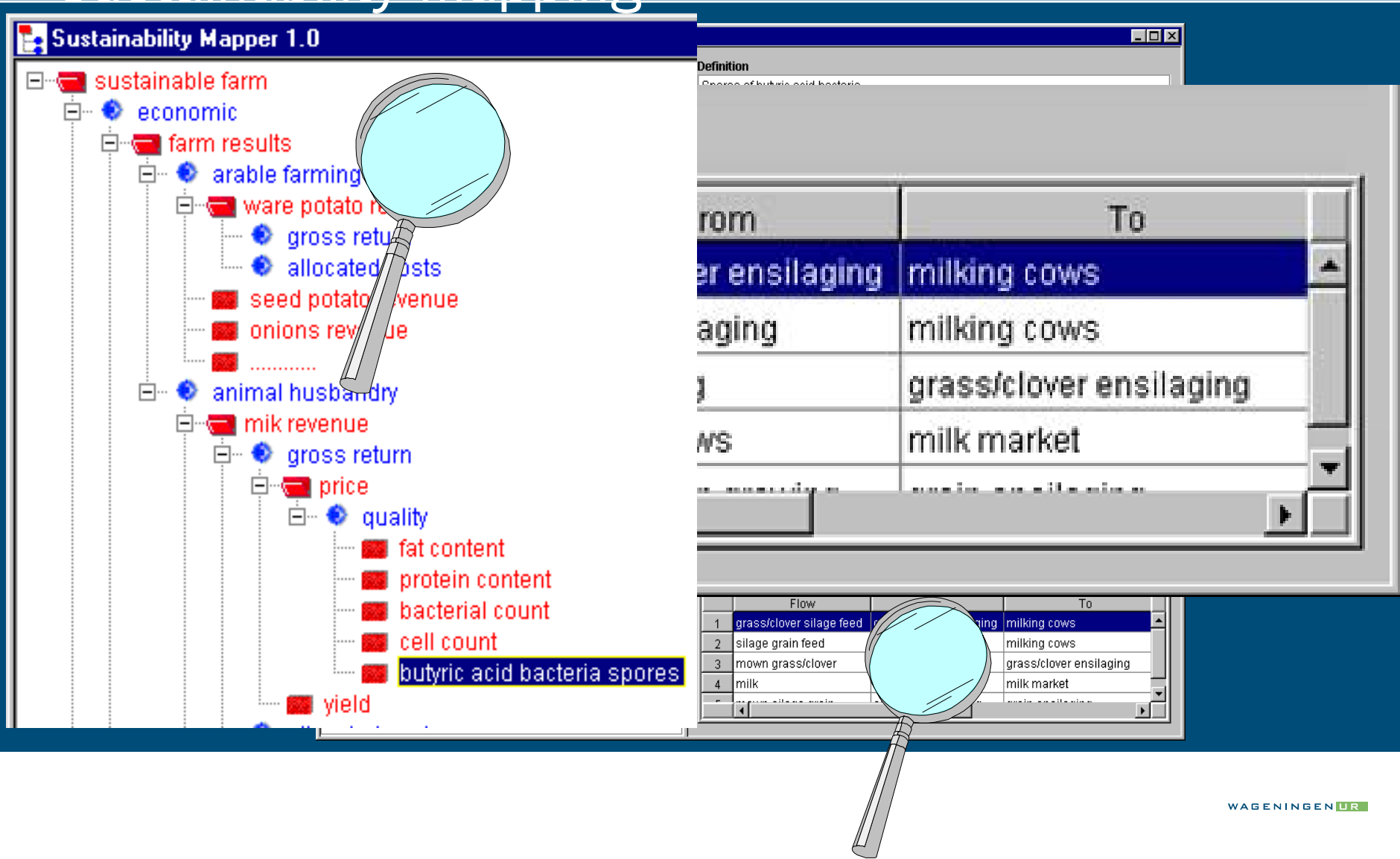
Product Flow Model (example)



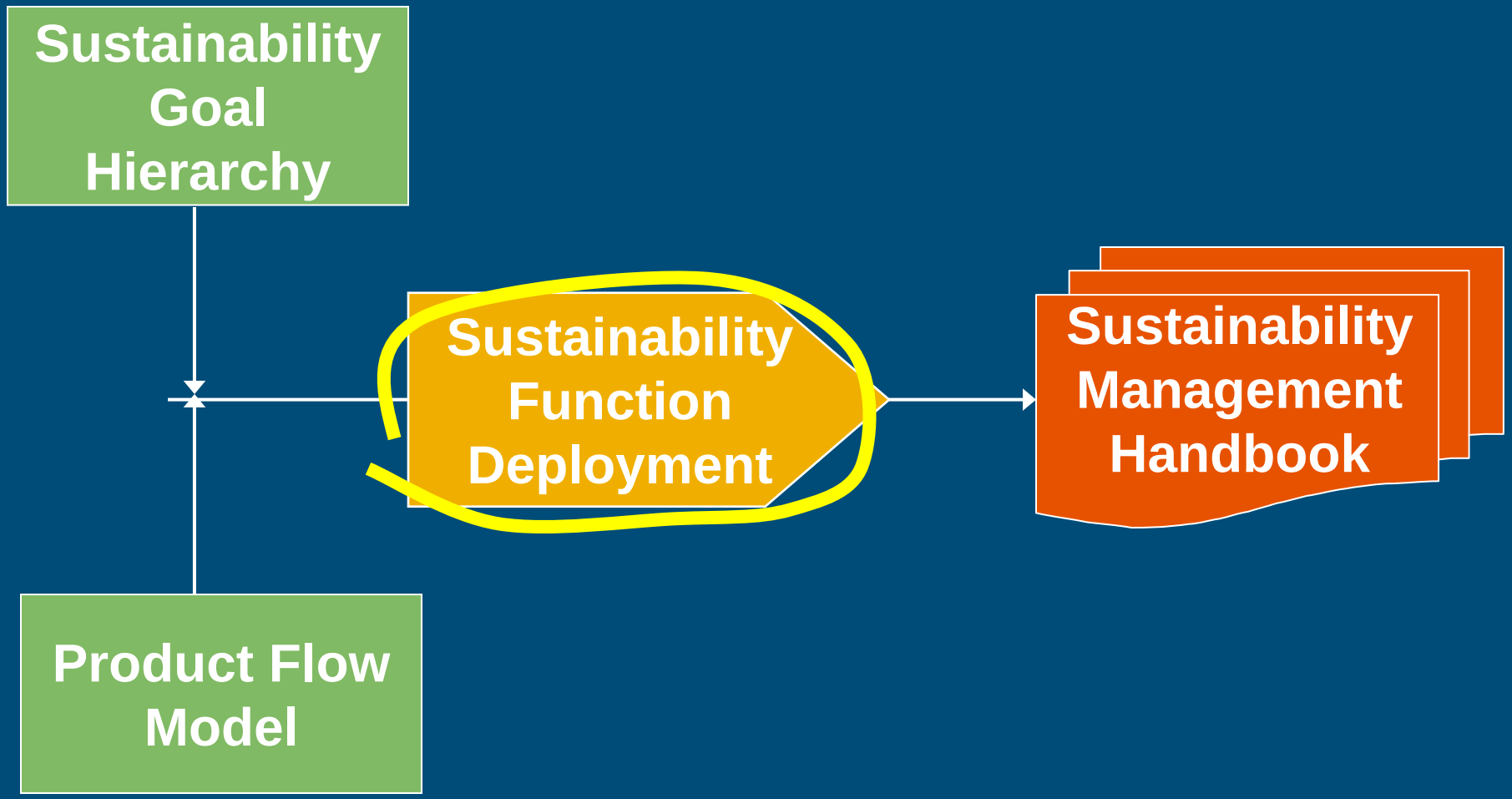
MC model structure and system development



Sustainability Mapping

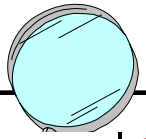


MC model structure and system development

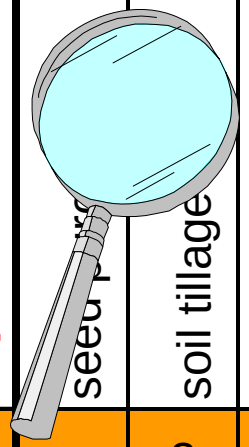


Sustainability Function Deployment

property goals-operat



property goals	importance factor (1-5)	seed p…	soil tillage	sowing	growing	mowing	loading
		operations[ley growing]					
sand content	4		3		3	9	9
grass/clover ratio	3			9	3		
dry matter content	5	3				9	
structure value	2	3				9	
…							
determination of critical operations							



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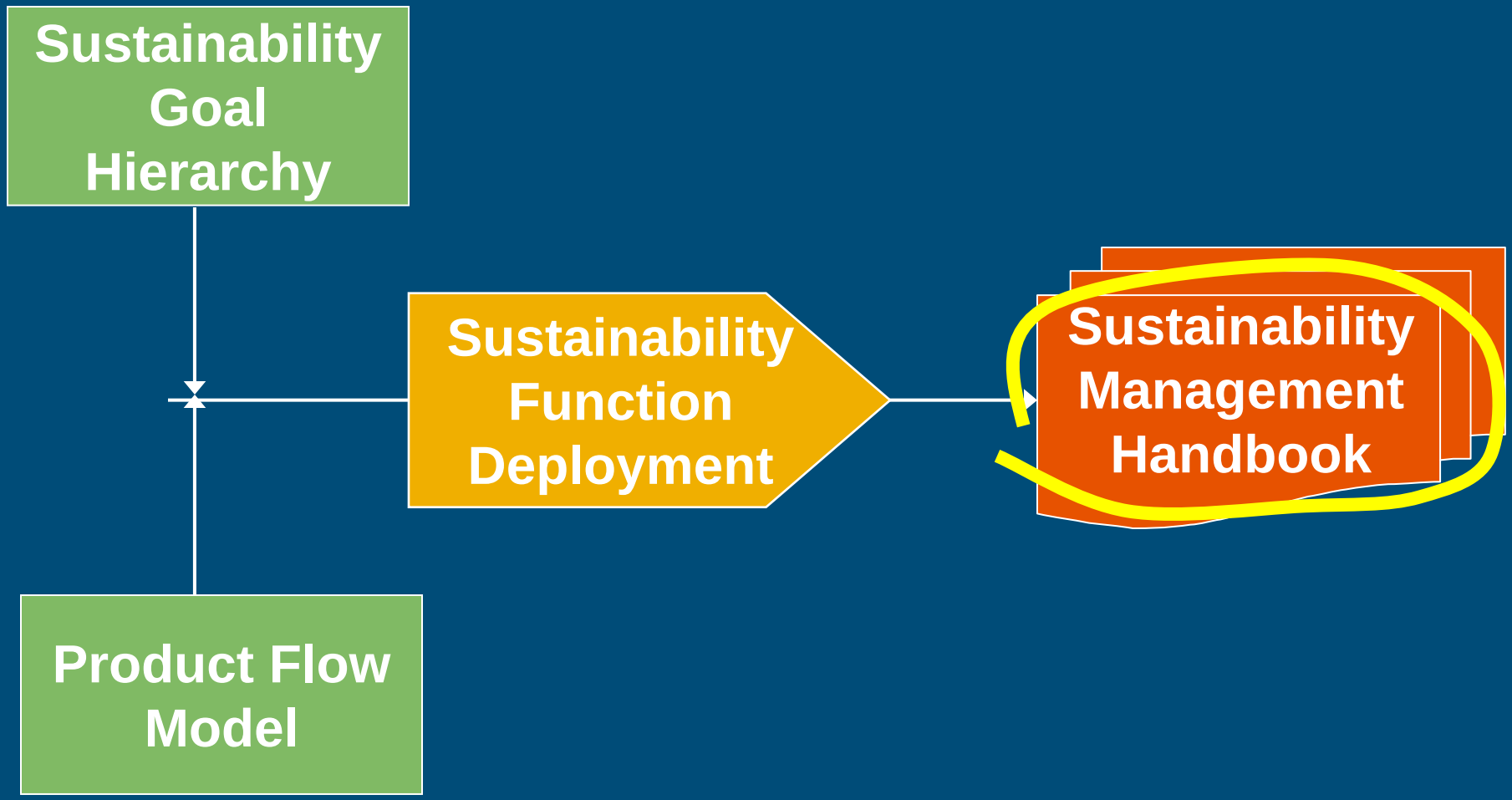

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Sustainability Management Handbook

Flow details

flow: mown grass/clover **unit:** ley growing

preventive measures | instruction | procedures | experiments | history

Soil tillage
- after tillaging, the land must be a smooth as possible

Growing
- regularly check for mole hills and ve them

Mowing
- check mower adjustment; re-adju t if necessary

Loading
- use a clean wagon; clean if necessary

Conclusions

- Learning tool
  - Continuous redesign process
  - Translation: sustainability ➔ daily management
  - handbook
    - updated
    - tailored
- *Sustainability emerges with the grip a farmer can get on product properties by monitoring and assurance throughout the complete production process*