Postharvest Technology:
Introduction to systems analysis

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Systems Analysis

Four steps are involved:

1. *Identify* the overall system
   - From beginning to end
2. *Identify* the individual components that comprise the system
   - Identify subcomponents within each component (e.g., harvest, transport, pack, cooling operations
3. *Analyze* each of the components
4. *Synthesize* the components into a workable plan

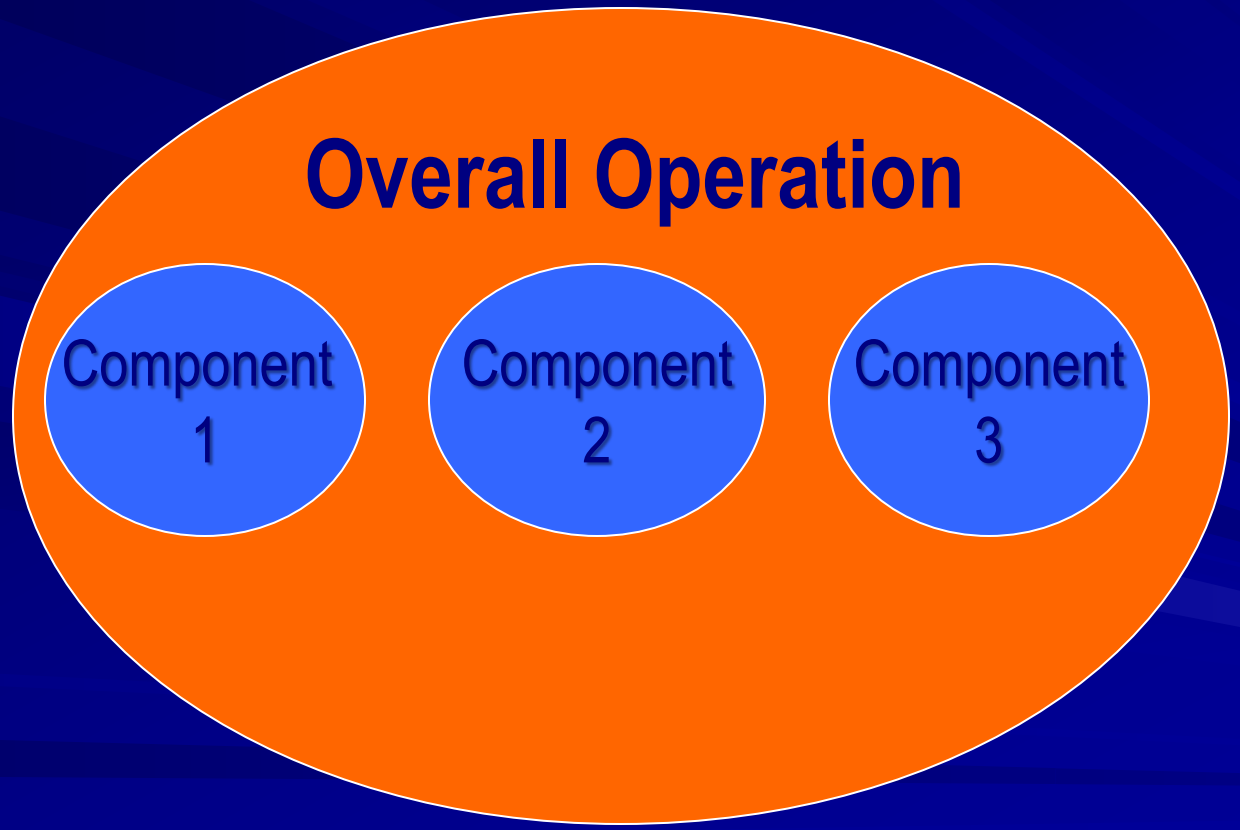
Before analyzing postharvest operations...

Determine requirements for the crop(s)

- Storage temperature and relative humidity
- Appropriate cooling method(s)
- Appropriate packing/shipping containers

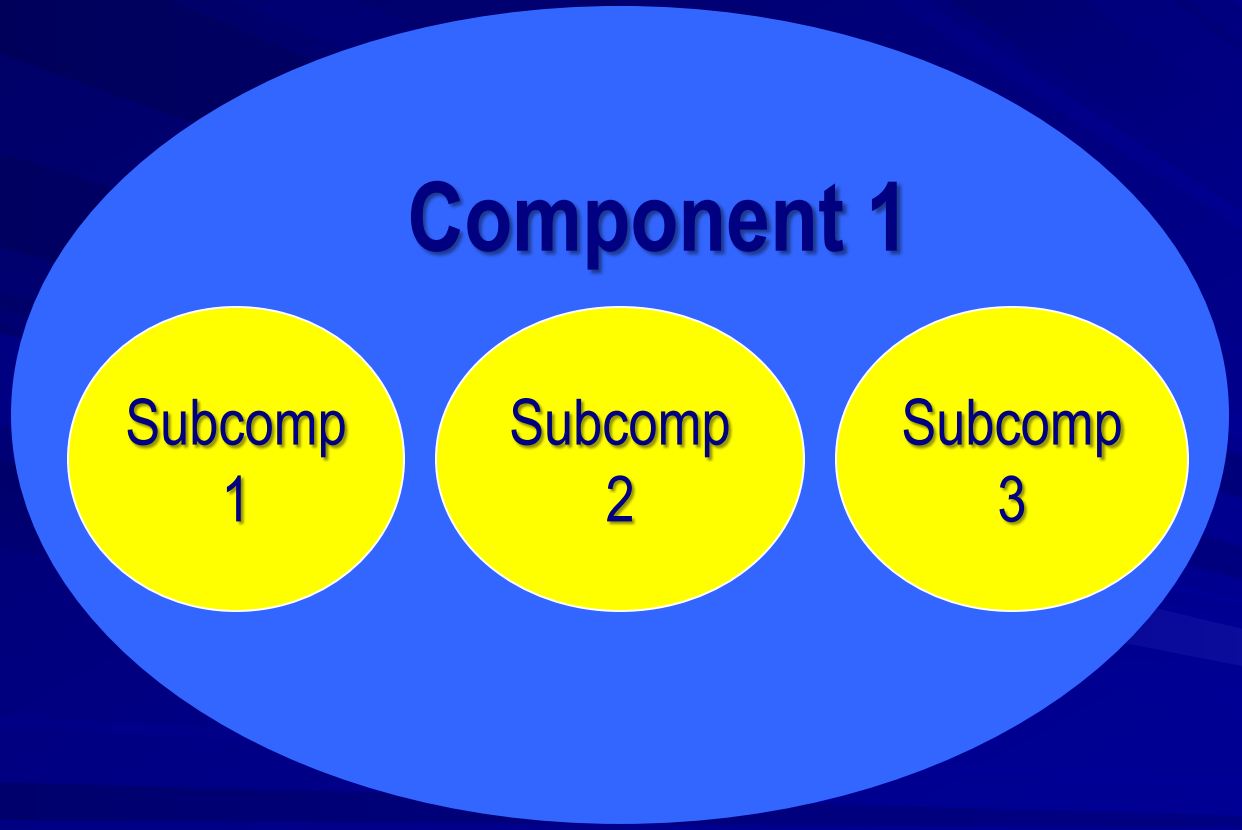
Then…

1. Define the system (overall operation)

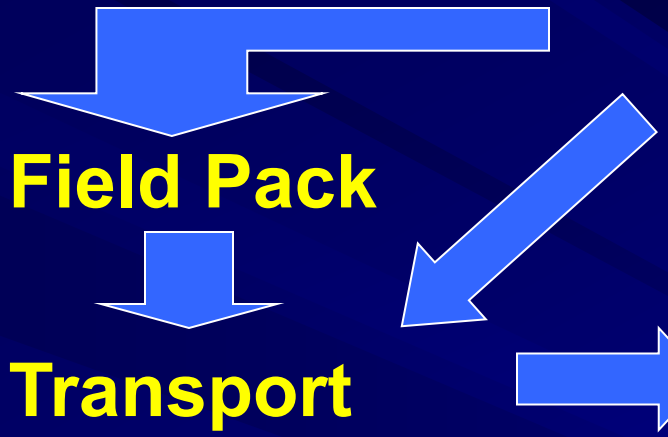


Identify the components

2. For each component, define the subcomponents



What comprises each subcomponent?



Field Pack

Transport

HARVEST (Component 1)

PACKINGHOUSE (Comp. 2)

Grading & Packing Operations

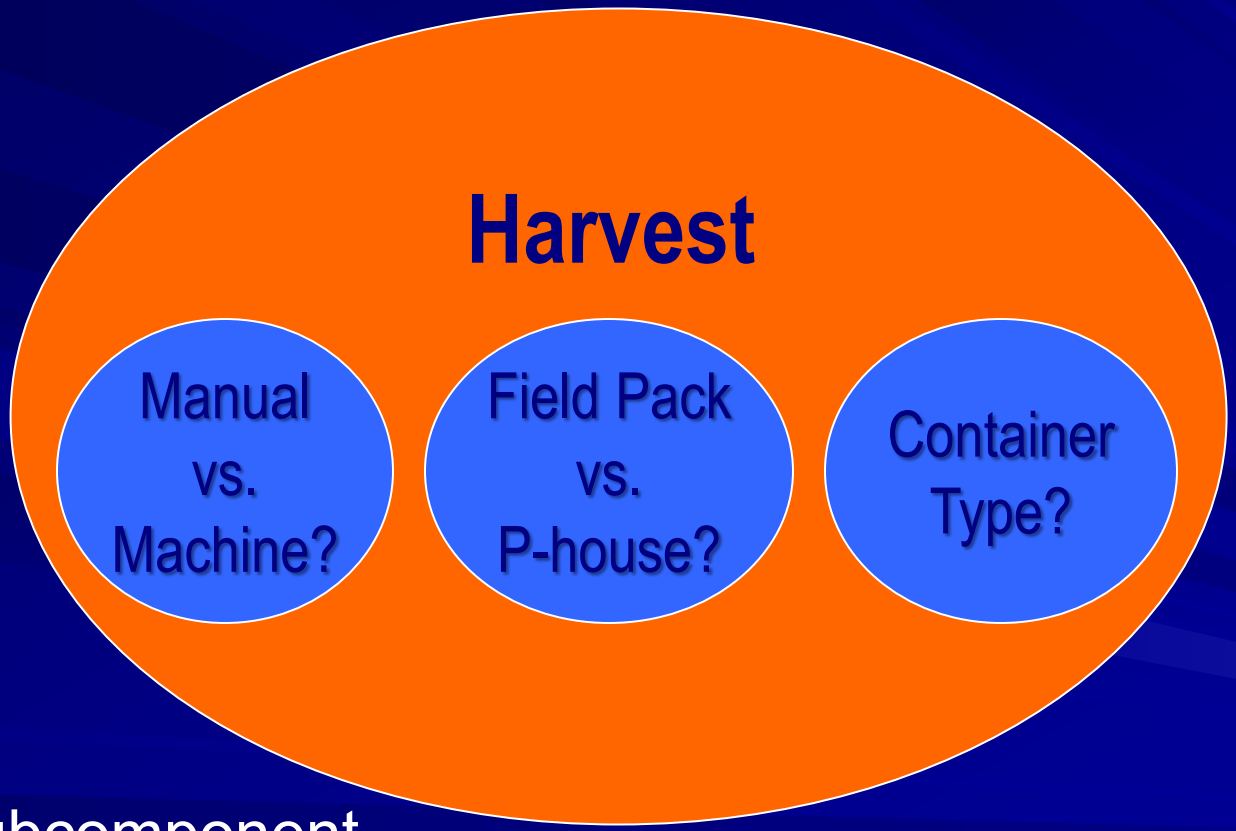
Palletizing

Cooling

SHIPPING (Component 3)

For example, this system has 3 components, each containing several subcomponents.

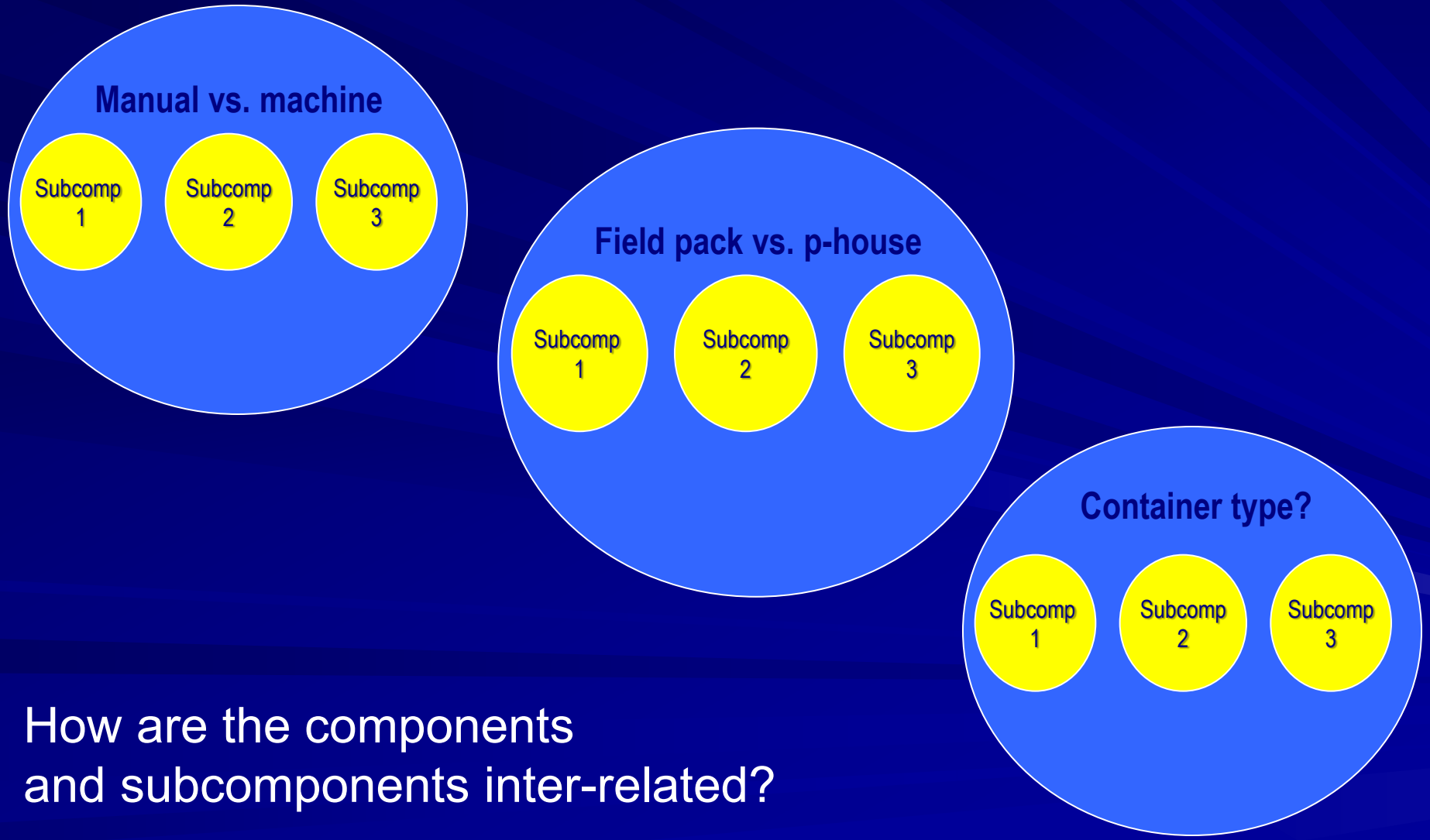
The first component is the Harvest Operation



Identify/define each subcomponent.

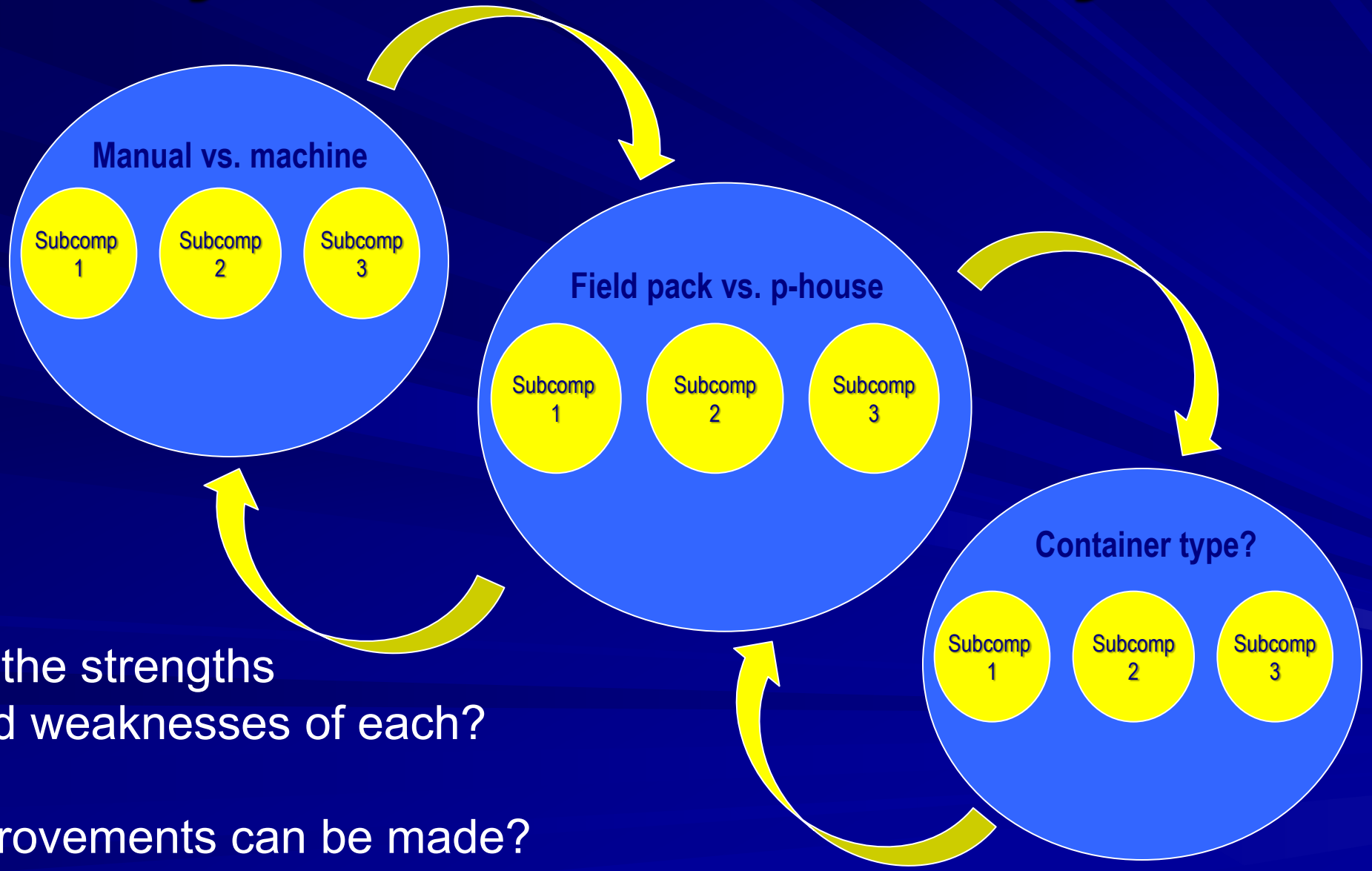
Ask: What, where, why, how?

Complete for components 2, 3, then…
3. Analyze the components



How are the components
and subcomponents inter-related?

4. Synthesize the entire system



What are the strengths and weaknesses of each?

What improvements can be made?