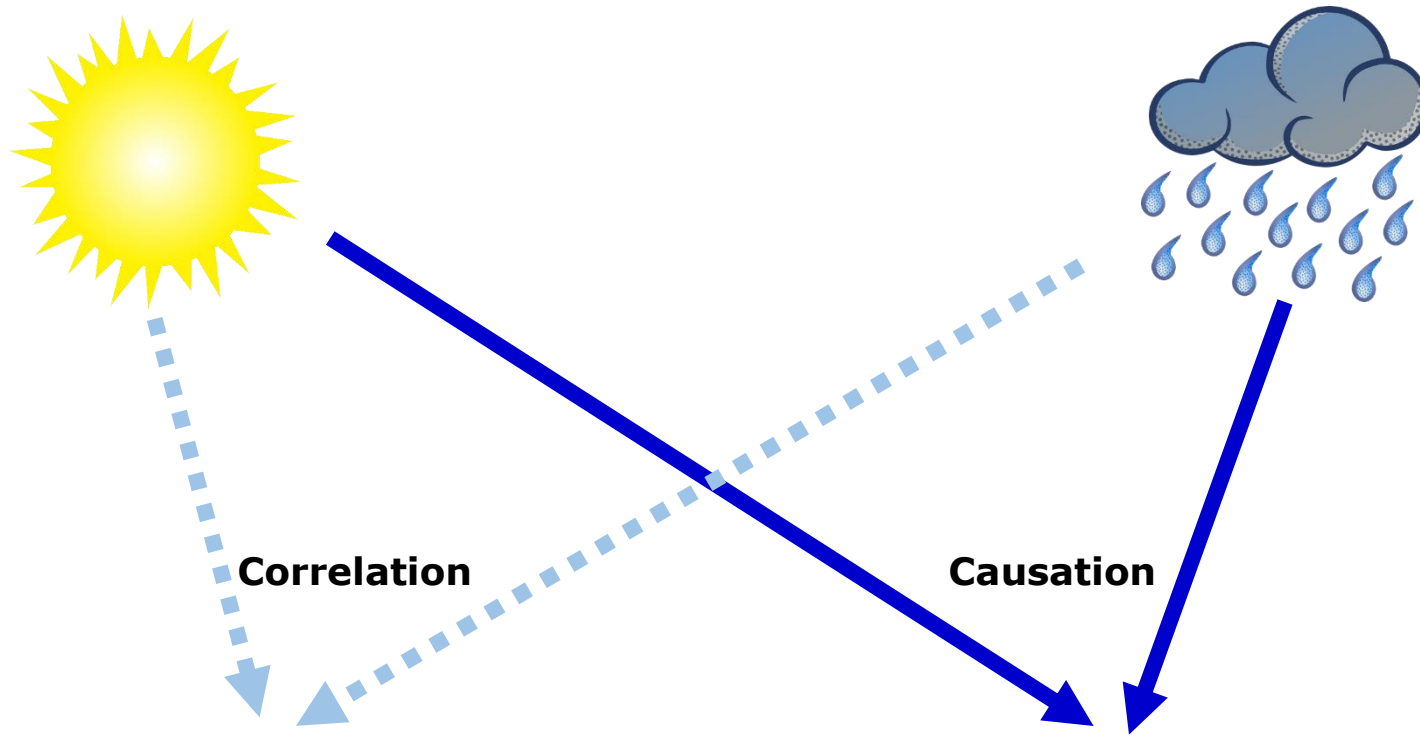


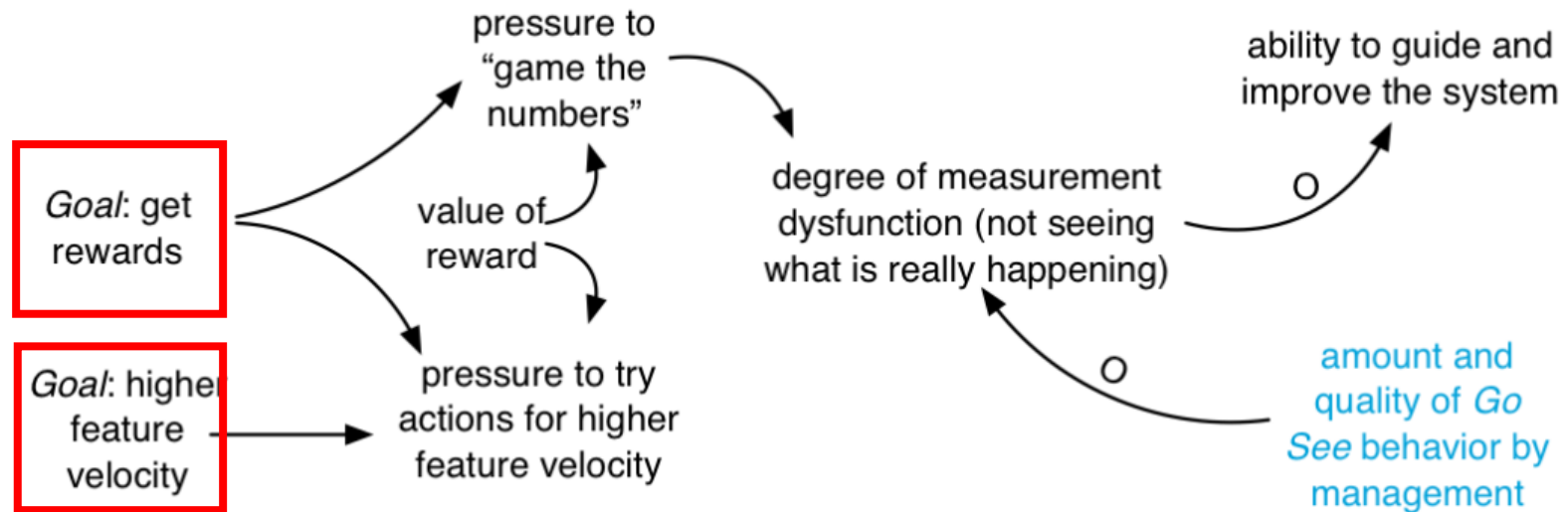


Understanding System Thinking *and* System Modelling

Causation vs. Correlation



System Modelling with CLD (example)



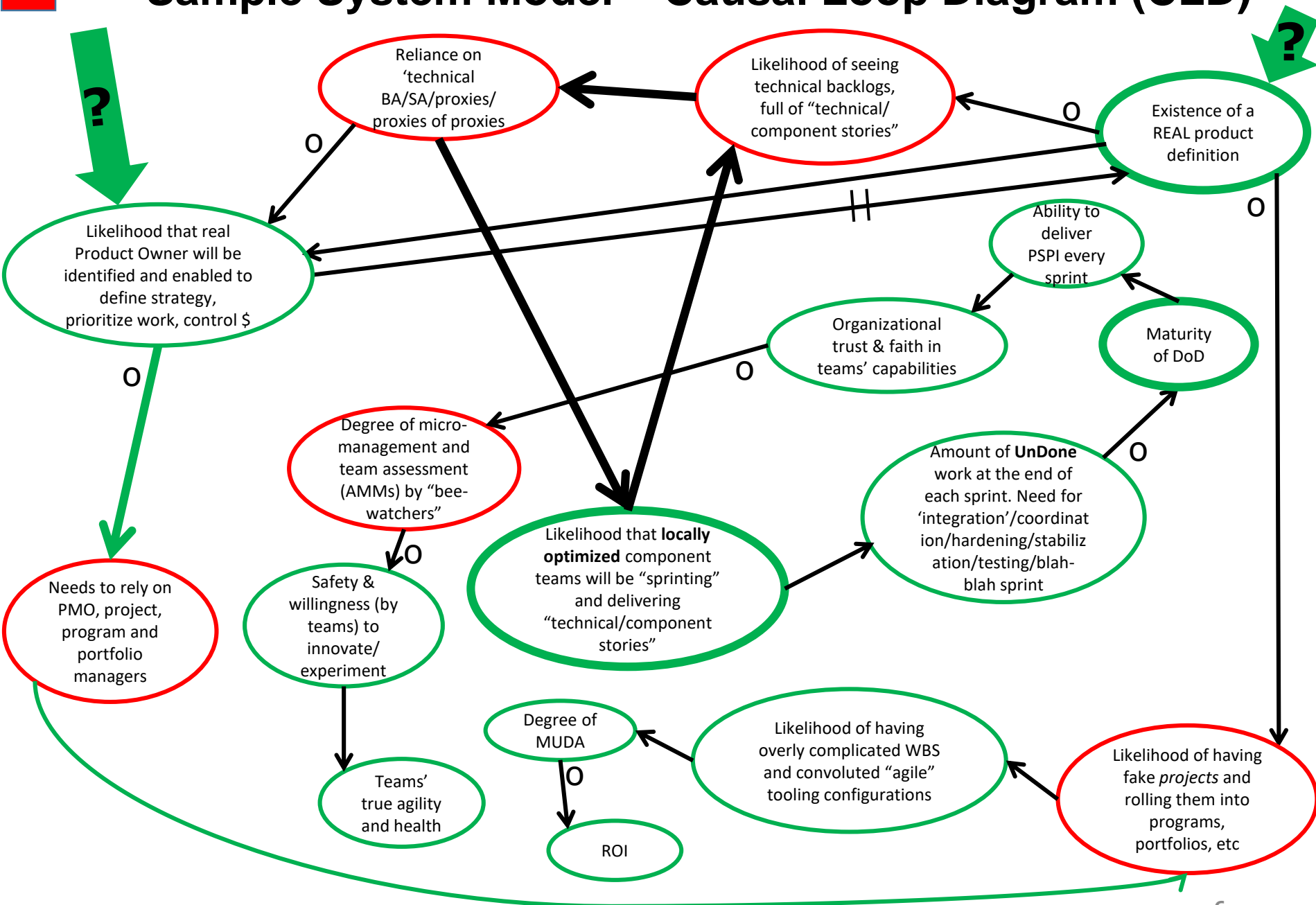
Source : http://less.works/less/principles/systems_thinking.html

Causal Loop Diagrams (CLDs): Annotations

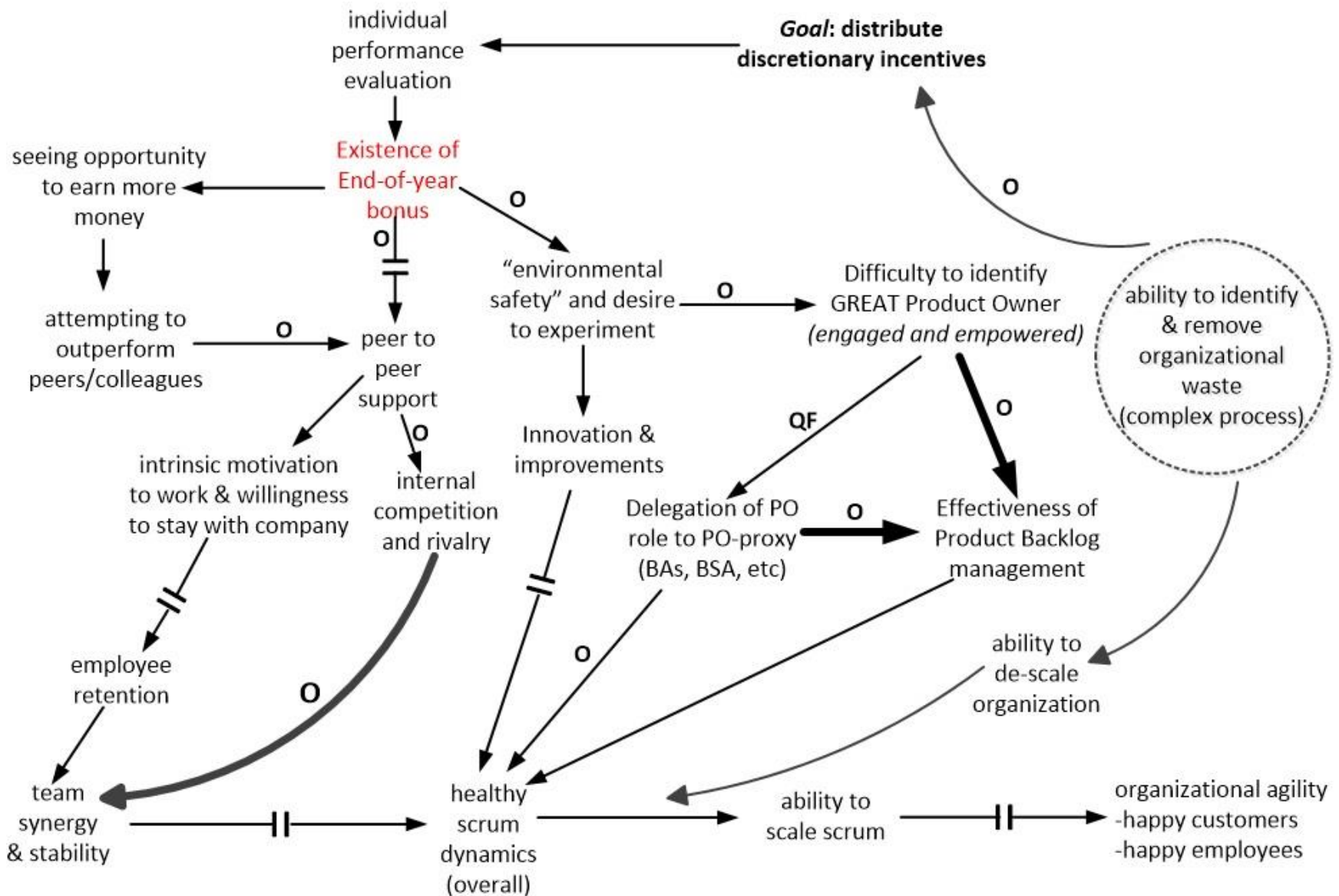
Here are some elements of CLDs that I use in my graphics:

- Goals — A high, overarching/strategic goal that needs to be achieved
- Variables — System elements that have an effect or influence on other system elements (other variables)
- Causal links — Arrows that connect two related variables
- Opposite effects — “O” annotation near an arrow; suggests that the effect of one variable on another is the *opposite* of what could be expected
- Delayed effect — “||” annotation that disrupts a causal link (arrow); it implies that there is a delayed effect of one variable by another variable
- Extreme effects — One variable has an extreme (beyond normal) effect on another variable; it is represented by a thick arrow
- Constraints — “C” annotation near arrow; implies that there is a constraint on a variable
- Quick-fix reactions — “QF” annotation near an arrow; action that brings about short-term, lower-cost effect

Sample System Model – Causal Loop Diagram (CLD)



System Modelling with CLD (example)



Source: <https://www.scrumalliance.org/community/articles/2016/july/from-the-less-toolbox-causal-loop-diagrams-to-visu>

Exercise

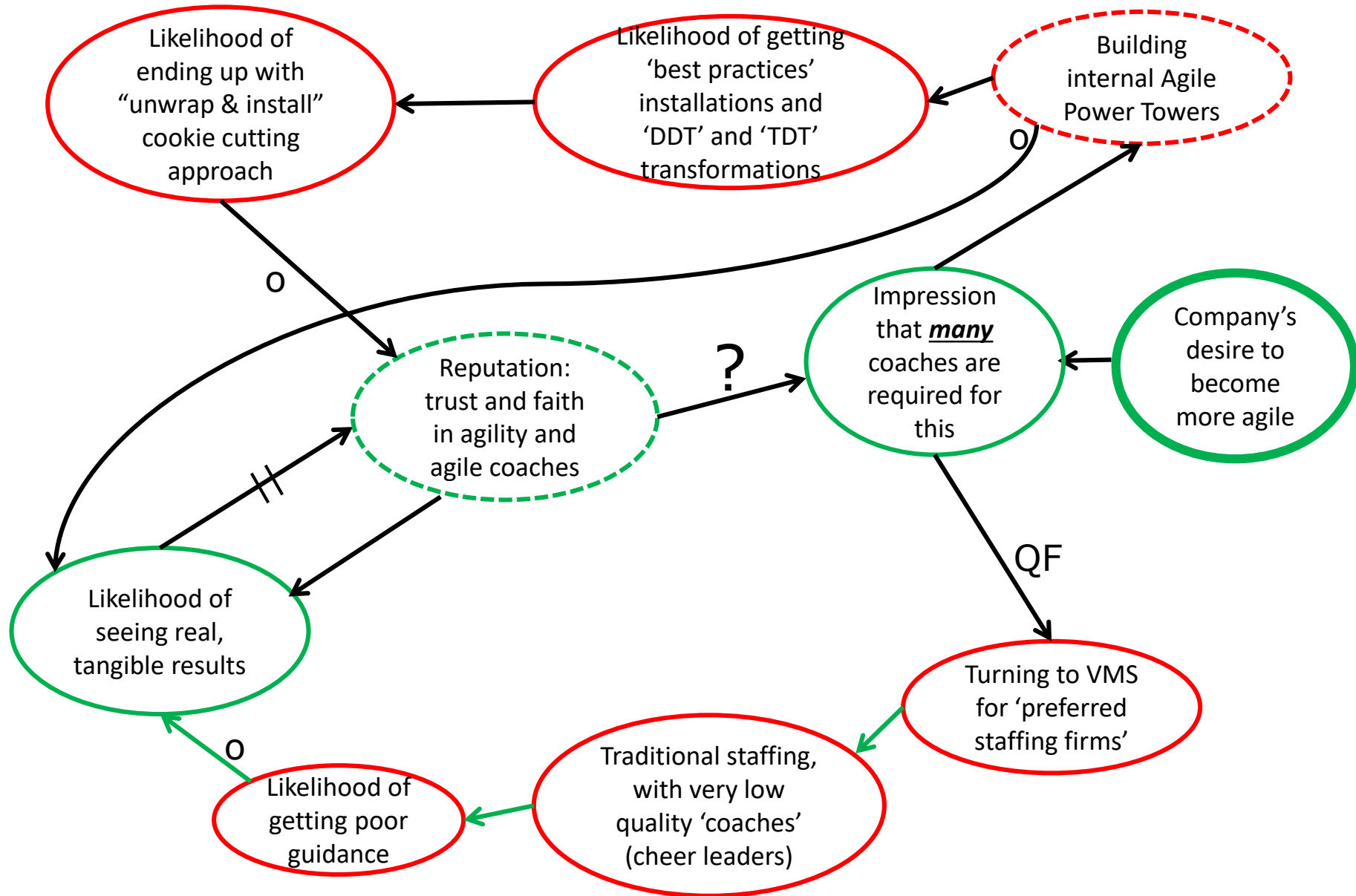
Duration: 10 min

Class: in-groups, brainstorm what could some reasons for **Big-Bang Superficial Agile Transformations** and what they may lead to.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in Agile “Big Bangs” - Exercise



Exercise

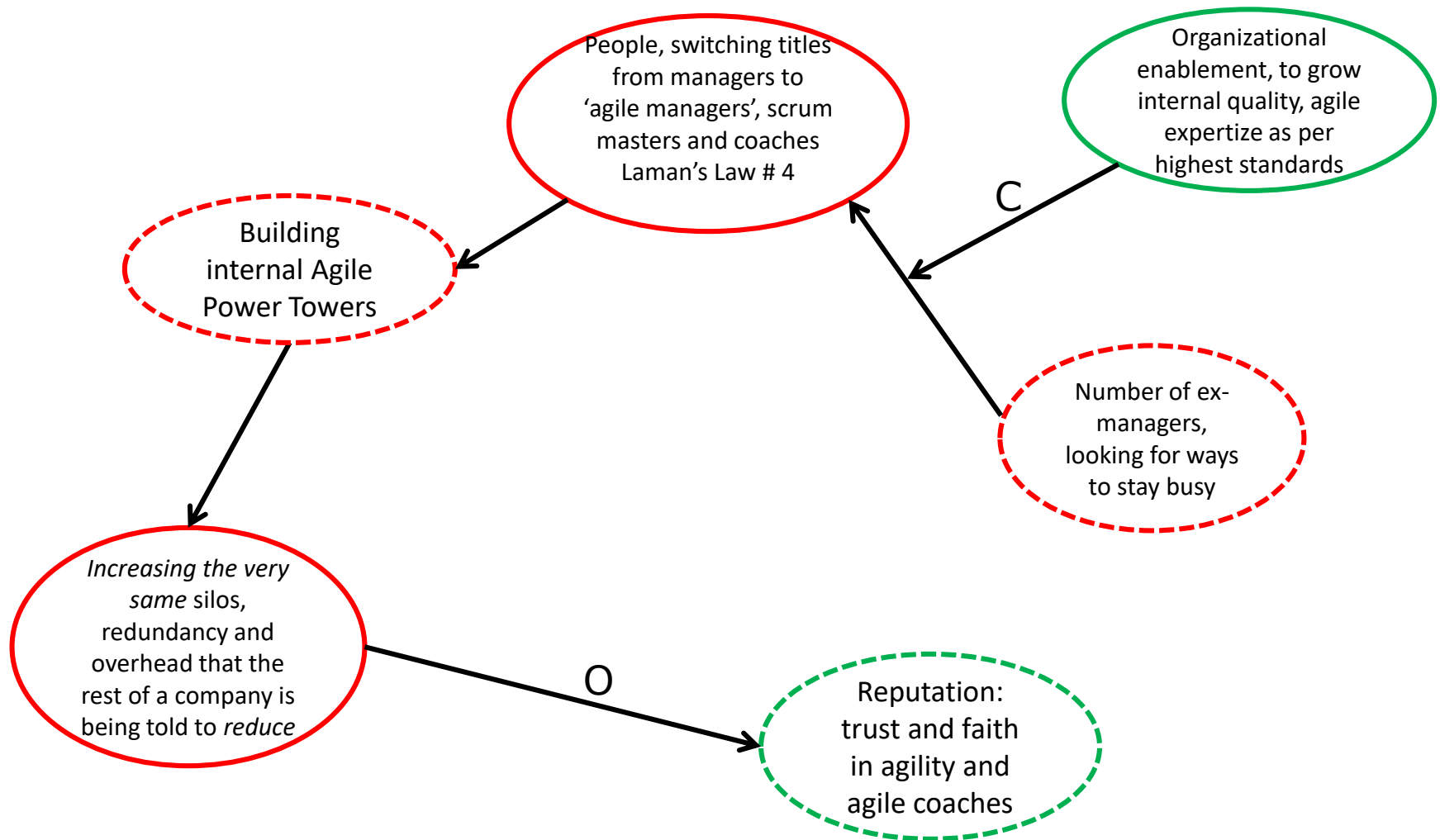
Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in Agile Leadership*** in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in Agile Leadership - Exercise



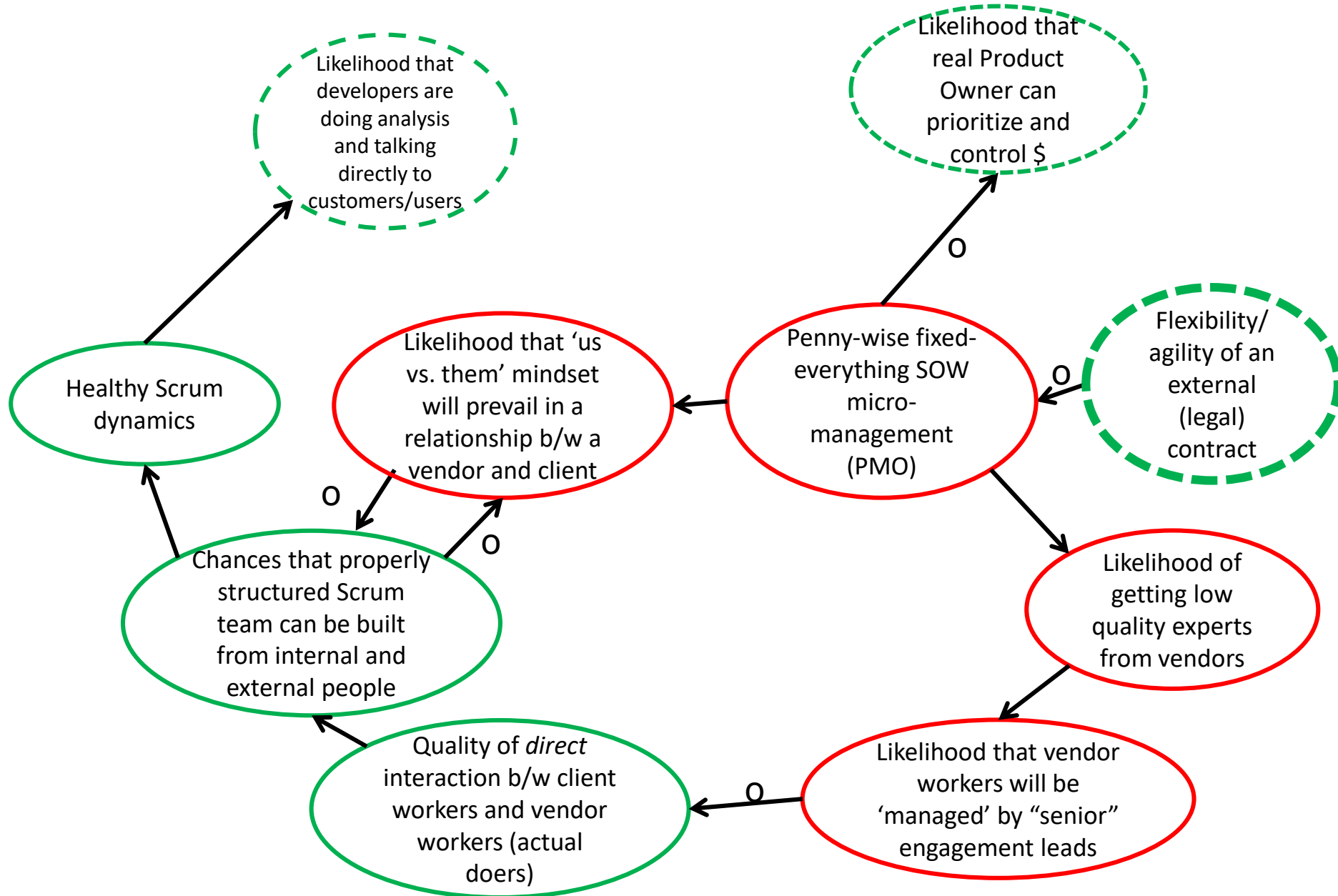
Exercise

Class: In-groups, think of how (legal) contracts, if 'translated' into an **internal contracts**, could lead to **local optimization**. Work with provided system variables to create a model.

Instructor: Give short feedback. Offer a recommended solution.

Duration: 10 min

Local Optimization in Internal Contracts - Exercise



Exercise

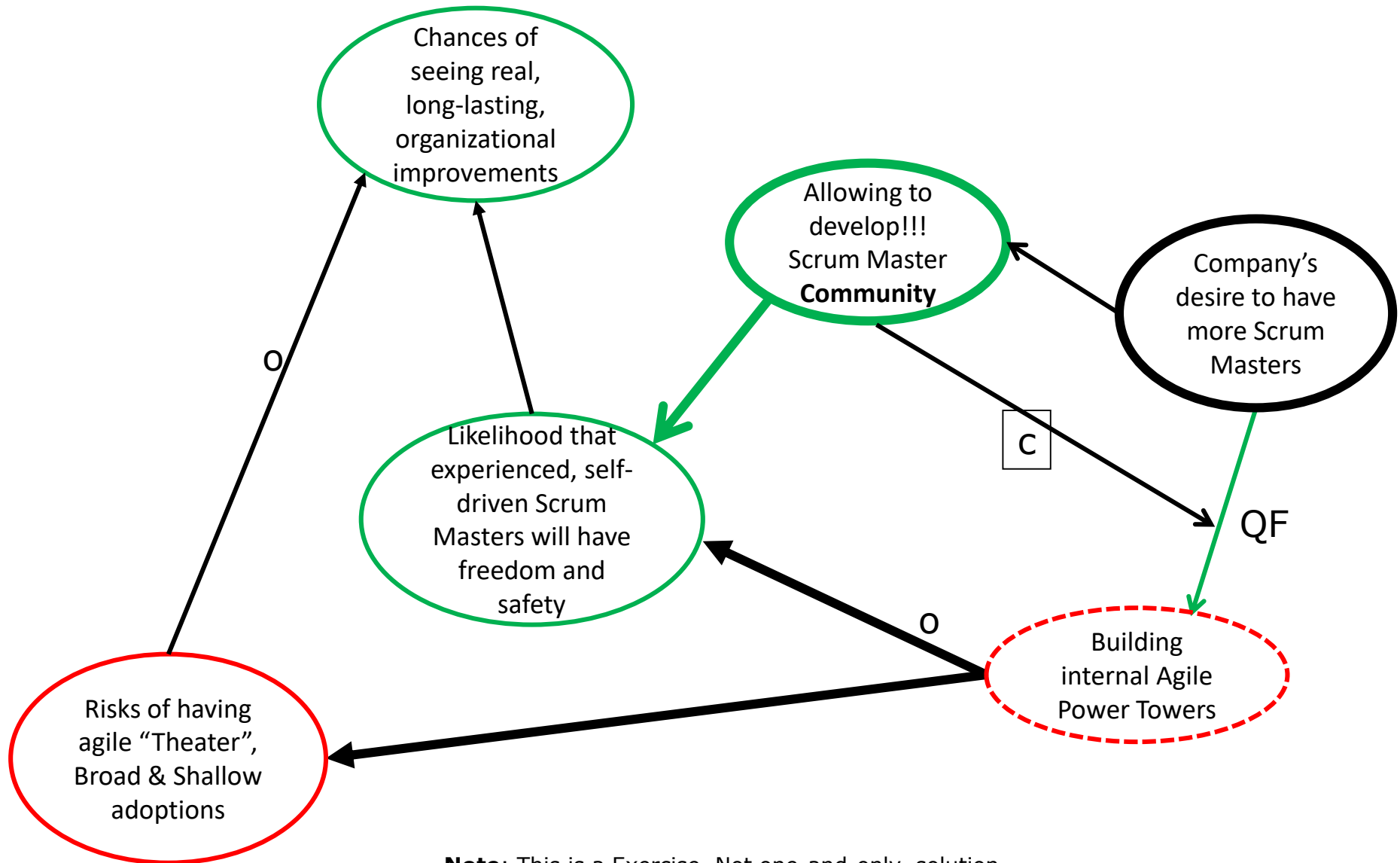
Duration: 10 min

Class: in-groups, brainstorm typical anti-patterns associated with misunderstanding **Scrum Master** profession ; use post-it notes to capture discoveries

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in Scrum Master Role - Exercise



Exercise

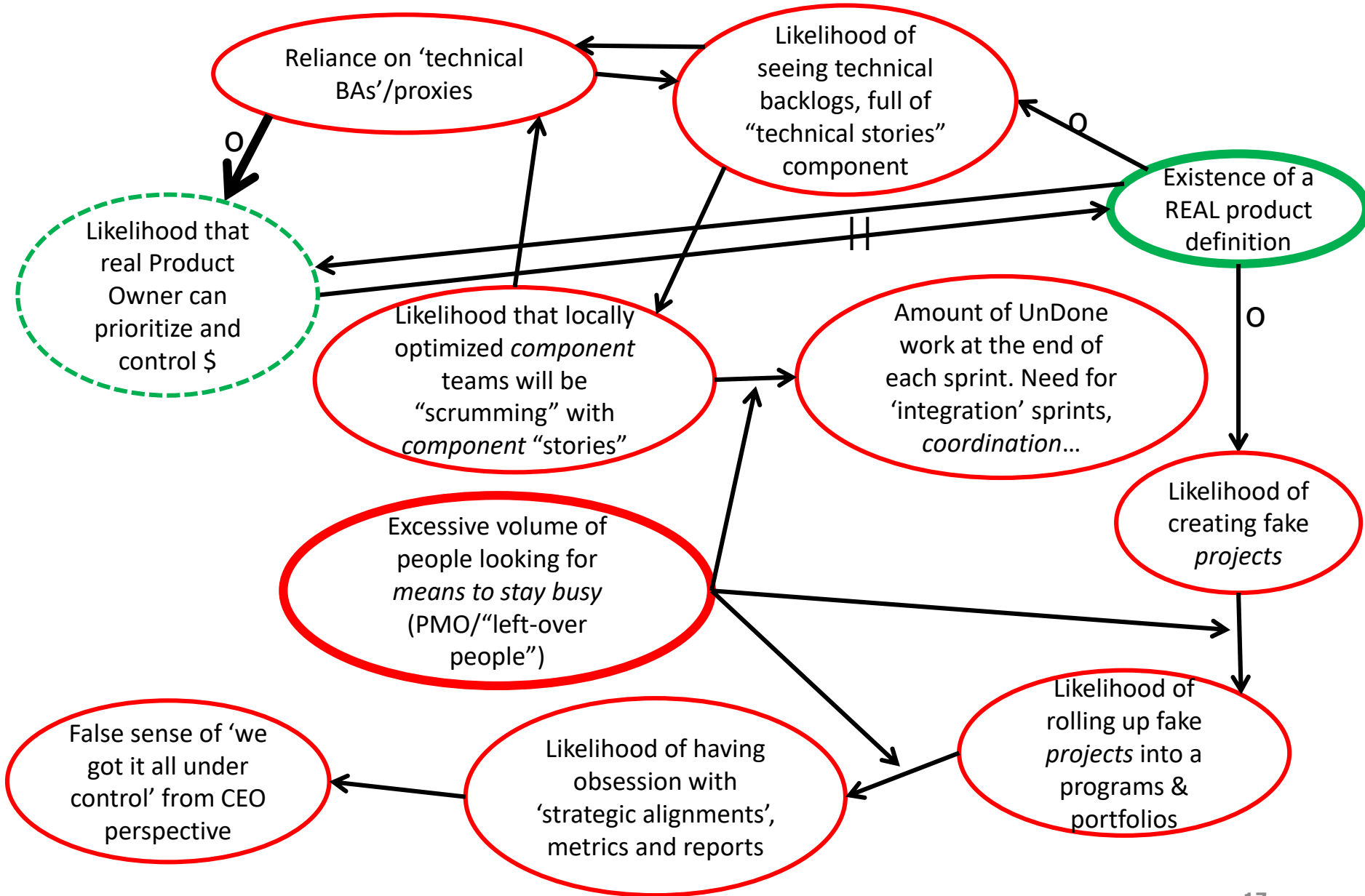
Duration: 10 min

Class: in-groups, brainstorm some of the most common pitfalls in defining a **product and problems with *complex WBS (projects, programs and portfolios) and redundant roles.*** Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in Roles & WBS - Exercise



Exercise

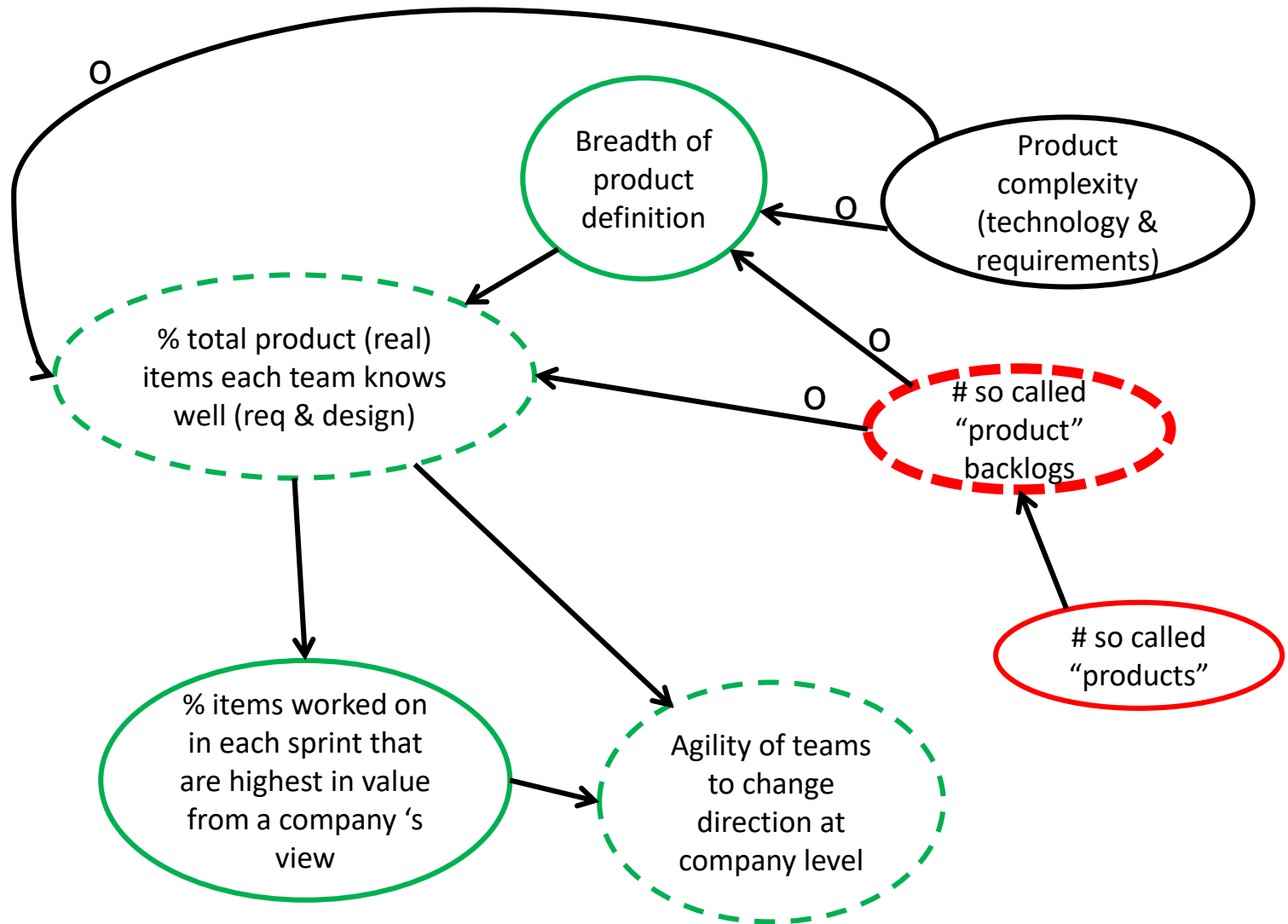
Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in Product Definition*** in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in **Product Definition** - Exercise



Exercise

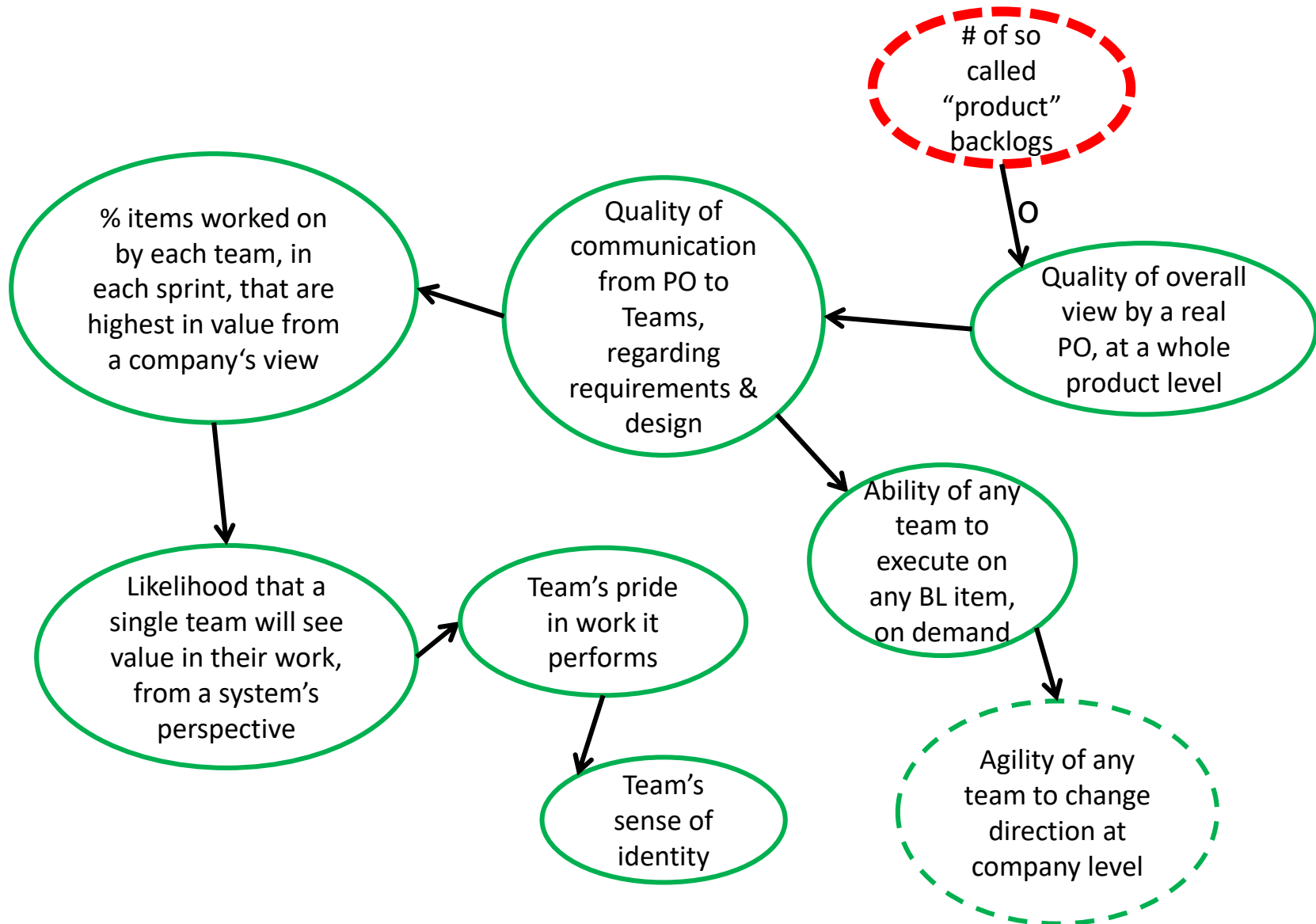
Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in Product Backlogs*** in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in **Product Backlog** - Exercise



Exercise

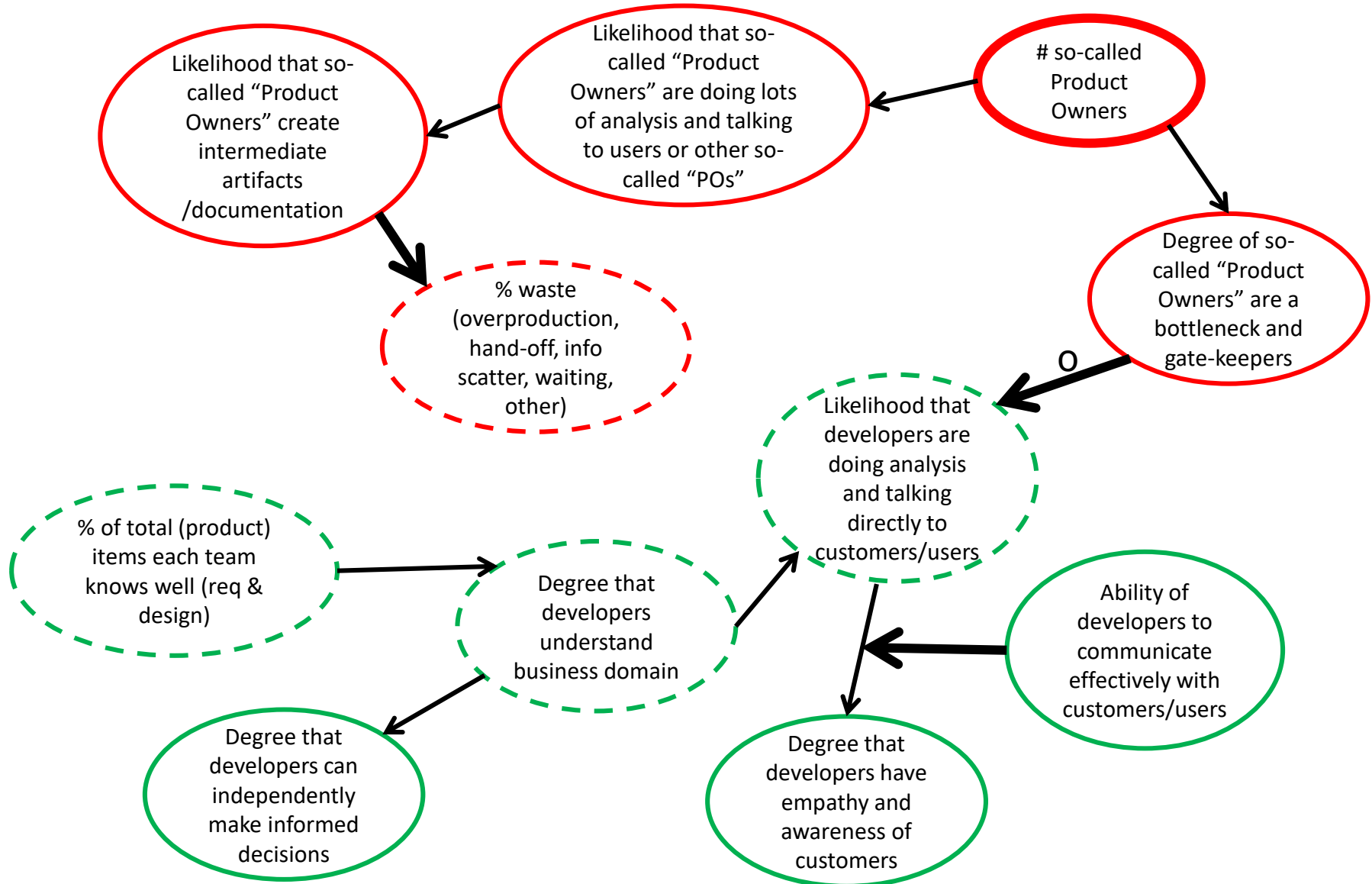
Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in Analysis and Design*** in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in **Analysis & Design**- Exercise



Exercise

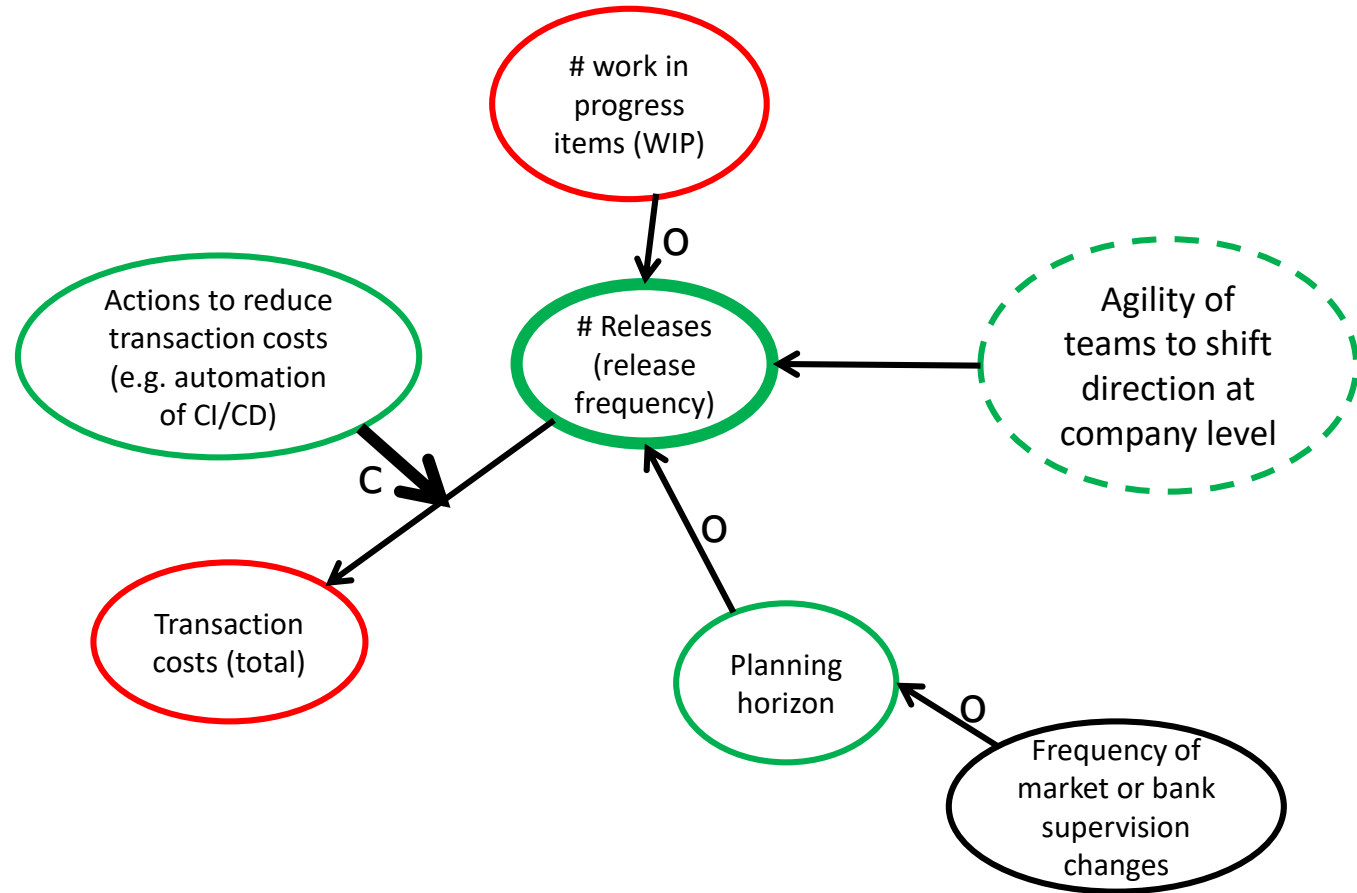
Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in Releasing*** in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in **Releasing** - Exercise



Exercise

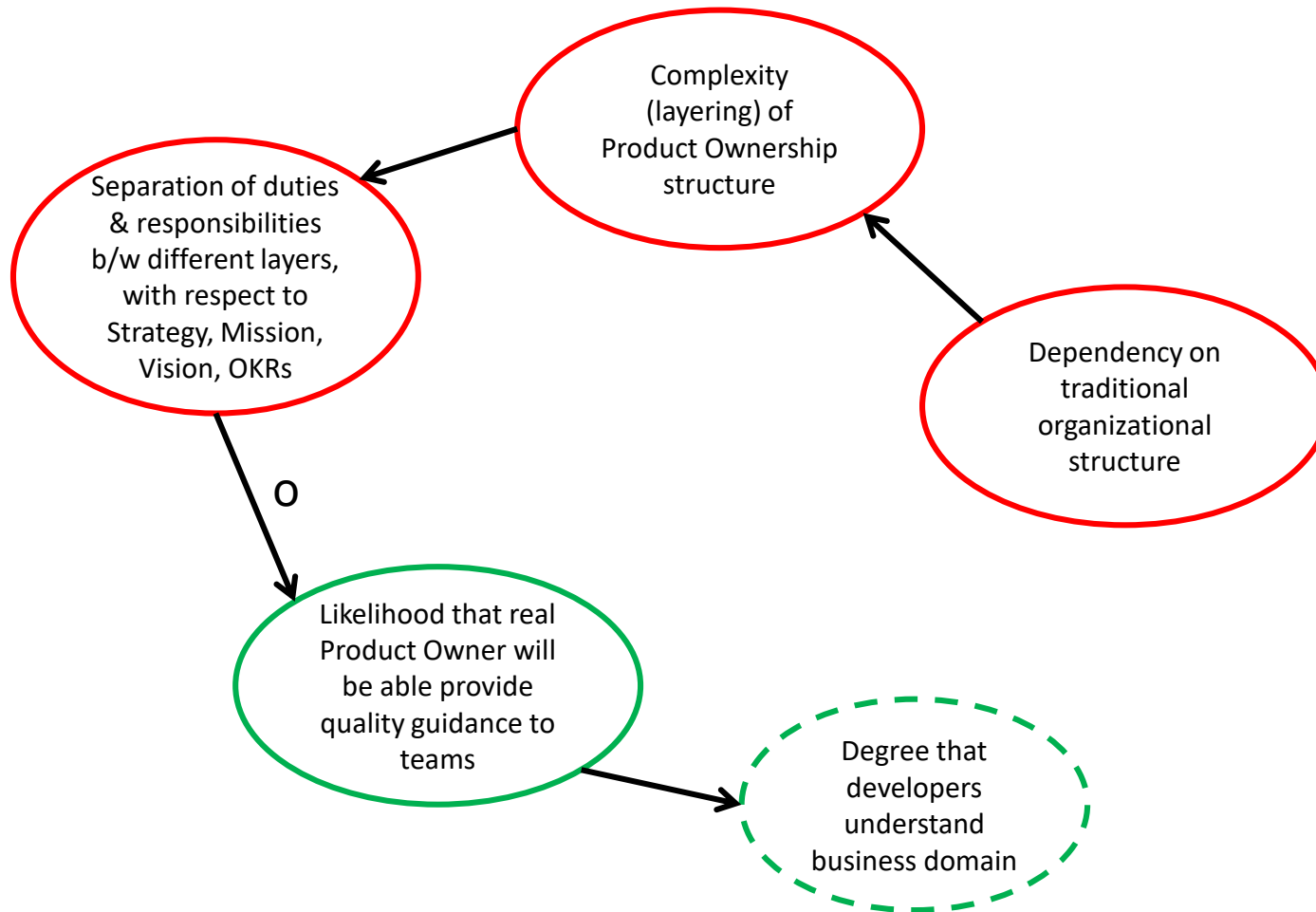
Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in PO-ship Structure***, in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in **PO-ship Structure**- Exercise



Exercise

Duration: 10 min

Class: in-groups, brainstorm some of the most common examples of ***Local Optimization in Tool-Driven WBS*** in your respective organizations. Work with provided system variables to create a model.

Method/Tool: System Modeling with CLD

Instructor: review with Class

Local Optimization in Tool-Driven WBS - Exercise

