

## INNOLUTION DEPENDENCIES ARE KILLING YOUR AGILITY: LEARN TO FIGHT BACK! COURSE AGENDA













Module	Description
Course Introduction	<ul> <li>Introductions</li> <li>Overview of the course agenda</li> <li>Collection of student discussion topics</li> </ul>
What Are Dependencies	<ul> <li>Definition of flow, dependency, blocker</li> <li>Scope of coordination</li> <li>Shared dependencies</li> <li>Introducing the concept of N (the cardinality of the dependence set)</li> <li>Upstream and downstream dependencies</li> </ul>
Dependency Issues Grow Exponentially	<ul> <li>Dependency permutations</li> <li>Probability of being blocked by dependencies</li> <li>Definitely-will-happen vs. definitely-will-not-happen dependencies</li> </ul>
Why Are Dependencies Important	<ul> <li>Dependencies affect when work happens</li> <li>Dependencies setup the problem, but "when" is the killer problem</li> <li>Dependencies can impact predictability, cycle time, and prioritization</li> <li>Use lifecycle profits and cost of delay to quantify dependency costs</li> <li>Discussion of dependency impact on predictability</li> <li>Discussion of dependency impact on cycle time</li> <li>Discussion of dependency impact on prioritization</li> </ul>
Defining Agile at Scale	<ul> <li>Agile at scale has been evolving</li> <li>Single-team agility</li> <li>Multiple collaborating agile development teams</li> <li>End-to-end business agility (the goal)</li> </ul>
Proper Unit for Organizing at Scale	<ul> <li>Creating a dependency solution for a small subset of your organization doesn't really solve the flow problem</li> <li>Need to take a more end-to-end business perspective</li> <li>At the larger perspective, projects prove to be a poor unit of focus</li> <li>Organizing around the current system architecture can be problematic</li> <li>We need something more long-lived like products, capabilities, or value streams</li> </ul>









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Busting Some Common Dependency Myths	<ul> <li>One solution will work for all size dependency problems</li> <li>Identifying the dependencies mostly solves the problem</li> <li>Better project management will solve the "when" problem</li> <li>Centralized demand management (capacity reservation) is the solution</li> <li>Escalation will solve the dependency prioritization problem</li> </ul>
Structural vs. Instantiated Dependencies	<ul> <li>What are structural dependencies (with example)</li> <li>What are instantiated dependencies (with example)</li> <li>What are blockers (with example)</li> <li>Planning and WIP are sources of instantiated dependencies</li> <li>We need to address both structural and instantiated dependencies</li> </ul>
Structural Dependency Improvement Strategies	<ul> <li>Organization structure and dependency path modeling process</li> <li>Modeling frequency, impact (cost of delay), and likelihood of getting blocked</li> <li>Five strategies for improving structural dependencies</li> <li>Create feature teams         <ul> <li>Myth that feature teams are the full solution</li> <li>Feature vs. component team examples</li> <li>Feature teams can substantially reduce the number of dependencies</li> <li>3 feature team impediments</li> </ul> </li> <li>Organize into coordinated clusters         <ul> <li>Characteristics of coordinated clusters</li> <li>Must have a single product owner to prioritize work</li> <li>Coordinated clusters help when one feature team is too big</li> </ul> </li> <li>Architect for "build using" (self service)         <ul> <li>Anti-pattern – "build for me"</li> <li>Discussion of "build together" (not quite open source)</li> <li>Discussion of "build using" (self service)</li> <li>4 approaches to enable self service</li> </ul> </li> <li>Establish team-to-team working agreements         <ul> <li>Normal class of service working agreement</li> <li>Expedited class of service working agreement</li> </ul> </li> <li>Balance (typically reduce) system/portfolio WIP         <ul> <li>What is system/portfolio-level WIP</li> <li>What is system/portfolio-level WIP</li> <li>Why portfolio-level WIP creates many dependencies</li> <li>Goal is to balance system demand and structural capacity</li> </ul> </li> </ul>











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Example of Structural Dependency Improvement	<ul> <li>At scale multiple structural improvement strategies will be necessary</li> <li>Consider the people and tech if you spin off your product/value stream/capability as a new product</li> <li>For whole group using coordinated cluster strategy</li> <li>Inside whole group organize into feature teams</li> <li>Use Build Using strategy with product/services outside of whole group</li> <li>Form working agreements with dependent entities</li> <li>Have a single product owner balance system/portfolio WIP</li> </ul>
Instantiated Dependency Improvement Strategies	<ul> <li>Instantiated dependency management process</li> <li>5 strategies for identifying instantiated dependencies         <ul> <li>Impact analysis (placement of functionality)</li> <li>Groom/refine backlog for independence</li> <li>Definition of ready</li> <li>Story mapping</li> <li>SAFe PI Planning</li> <li>Discussion of anti-patterns</li> </ul> </li> <li>4 strategies for recording/visualizing instantiated dependencies         <ul> <li>SAFe program board</li> <li>Scrum task board</li> <li>Kanban ticket design (3 methods)</li> <li>Kanban board design (3 methods)</li> </ul> </li> <li>6 strategies for coordinating instantiated dependencies         <ul> <li>Product backlog prioritization</li> <li>Scrum of Scrums</li> <li>Alerting downstream teams</li> <li>Systemic (inter-team) swarming</li> <li>SAFe program board</li> <li>Prioritize and manage WIP</li> <li>Discussion of anti-patterns</li> </ul> </li> <li>Blocker management         <ul> <li>Record and visualize blocker information</li> <li>Collect blocker-related data</li> <li>Blocker clustering (affinity grouping)</li> <li>Blocker reduction strategies</li> </ul> </li> </ul>
Conclusion	<ul><li>Review of the class</li><li>Final Q&amp;A</li></ul>

