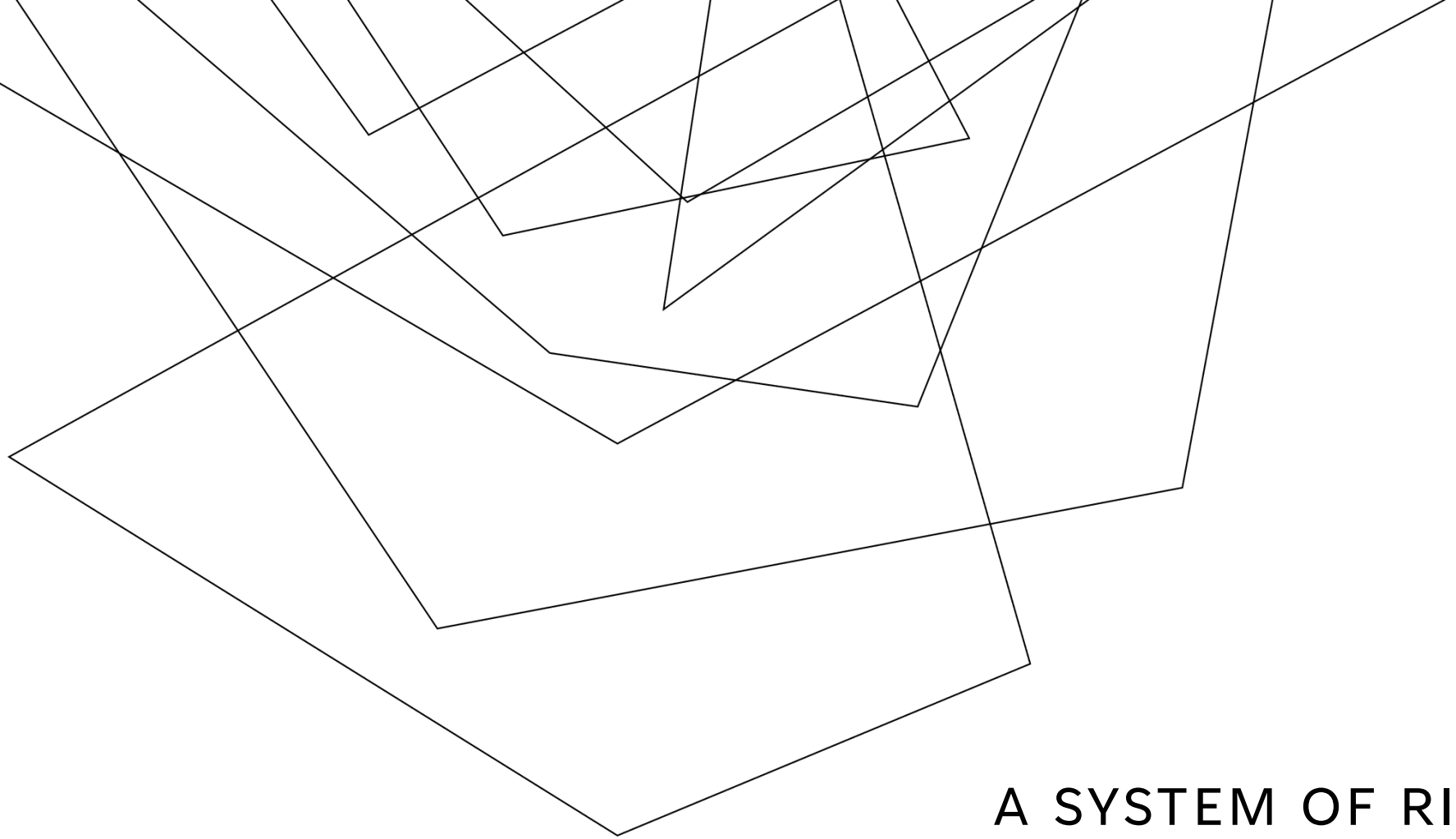

A SYSTEM OF RISK AND DEPENDENCY MANAGEMENT

JAMES K SMITH

OVERVIEW

WHAT RISKS AND DEPENDENCIES ARE

DEPENDENCIES AND THE SCRUM DEFINITION OF READY

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WHAT RISKS AND DEPENDENCIES ARE

- Risks are defined as some exposure to danger. Risks in the value stream maintain a status of Resolved, Owned, Accepted, or Mitigated.
- Dependencies are a type of risk that interrupts workflow, as in predecessor work that must take place, before succeeding work can be executed.
- An example of a dependency would be completion of an enabler work-item required for feature to deliver intended business value.
- Note: “External” dependencies are often used to describe dependencies that must be mitigated or cleared by external work that is not in the scope of those executing the dependent work.

DEPENDENCIES AND THE SCRUM DEFINITION OF READY

- Scrum is a process designed to deliver work in a stable and certain way via short iterations.
- To deliver this certainty and stability, the rules of scrum include that work-items with external dependencies cannot be pulled into a sprint iteration before those external dependencies are cleared.
- This rule is described in the “I” in the INVEST criteria acronym:
  - I: Work-items must be *independent* or *immediately* actionable before they can be executed by the owning scrum team.

So how can these dependencies be cleared or mitigated so they can be executed by a scrum team?

THE ELABORATION VALUE STREAM AS A WORKFLOW

Let’s look at the elaboration value stream as a giant workflow.

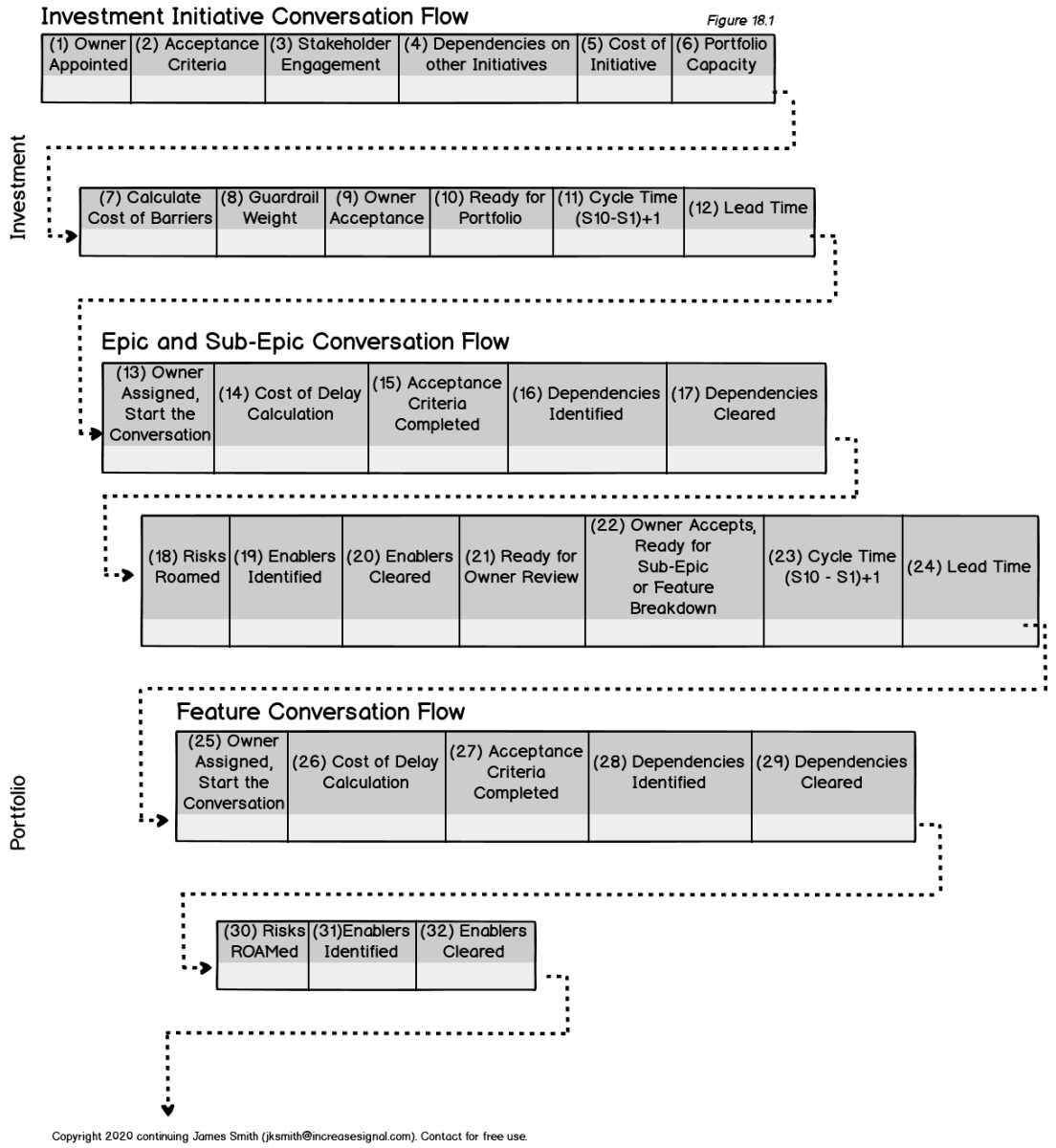
The value stream is executed by a value stream team, comprised of multiple sub-teams that are autonomous and can execute in parallel.

- Some teams may be responsible for refining value at an Investment level.
- Other teams may be refining the resulting value from the Investment level as it flows through the program/portfolio level.
- Following portfolio teams in the workflow, scrum teams are refining resulting work so that it can be executed in an iteration with certainty.

THE WORKFLOW AS A GIANT KANBAN BOARD WITH NUMBERED STATUSES

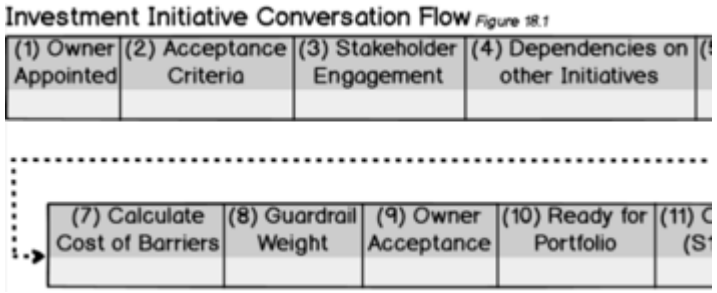
If you combine the boards for each of your work-items in the backlog taxonomy, the resulting workflow might start out like this...

Note that this workflow elaborates across multiple parent->child work-items. Each status along the way is numbered. So, for example, if the first status for elaborating initiatives is numbered (1), the last status shown in this example workflow is numbered (32), and is specifically part of the feature elaboration workflow.

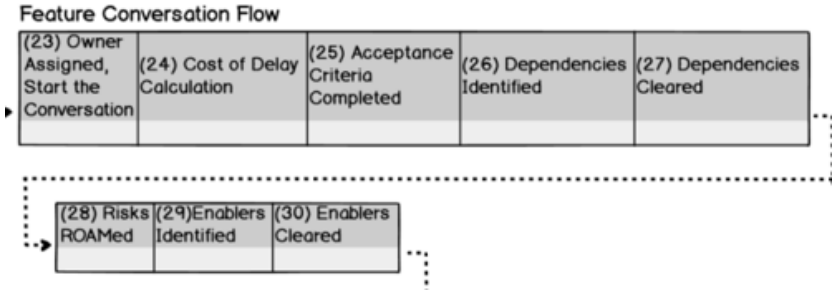


RISK AND DEPENDENCY RESOLUTION IN THE VALUE ELABORATION STREAM

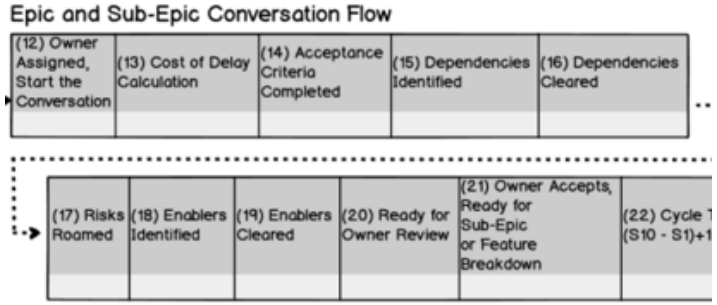
Dependencies at the Initiative Level of the taxonomy



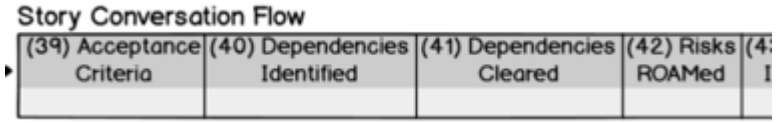
Dependencies and Risks at the Feature Level of the taxonomy



Dependencies and Risks at the Epic Level of the taxonomy



Dependencies and Risks at the Story Level of the taxonomy



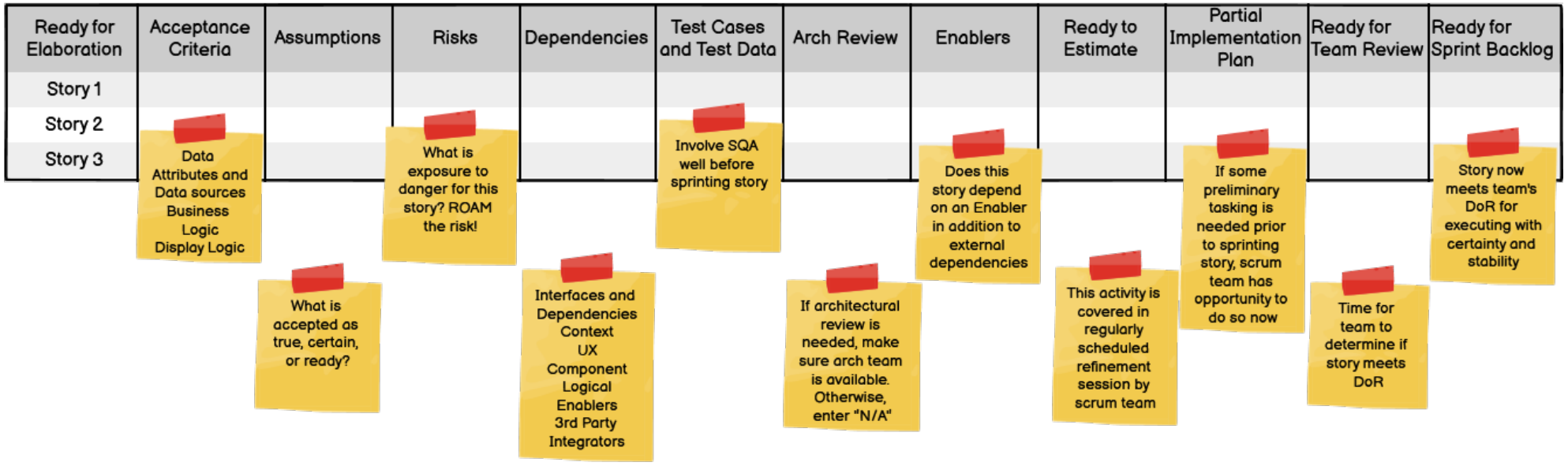
- In your whole value elaboration workflow, provide statuses for addressing Risks and Dependencies separately.
- These statuses must be cleared before a parent work-item can be broken down into child work-items.
- Design your work-item elaboration boards at every level to include these statuses.
- For each work-item type, the workflow now forces you to have a conversation about risks and dependencies for that type.

GETTING TO SCRUM DEFINITION OF READY

The Scrum process is the validation that you are about to turn an organizational opinion into an executable fact, so delivery teams using scrum will require an elaboration workflow that produces stories meeting a stringent Definition of Ready (DoR).

Use the “Trailblazing” technique to get stories to this DoR with excellence. Notice Risks and Dependencies have dedicated statuses in the workflow.

Story Trailblazing workflow kanban board



MEASURING DELAYS CAUSED BY DEPENDENCIES (OR ANY STATUS IN WORKFLOW)

External dependencies are not allowed on the scrum task board, so this consideration will not be included in the calculation.

Any elaboration or refinement board used for work-items outside of a sprint can make use of the following calculation. One or more people who work on a refinement board could be considered a "team." For instance, it's reasonable to have a separate Epic, Feature, and Story team, if needed to maintain flow and enable parallel work. All these teams would be considered part of the "Value Stream Team" in Team of Teams fashion. Consider the following example:

To measure a cycle time for one or more statuses on the board, count all the work-items on the board for that status and following workflow statuses, including the "Done" status. Divide this sum by only what's in your "Done" status. Then, for context to an interval time, multiply by weeks in measurement interval to calculate in # weeks. Perform this calculation on last day of each interval, then clear items in "Done" status so they aren't counted next interval measurement.

Example:
16 work-items in a "Dependencies" column and all following columns including "Done" column. Divide 16 by work-items in "Done" column (4).
16/4 work-items in "Done" column = 4
Multiply by #weeks in interval (ex 2) = 8

This means it currently takes 8 weeks to clear board from "Dependencies" column forward.

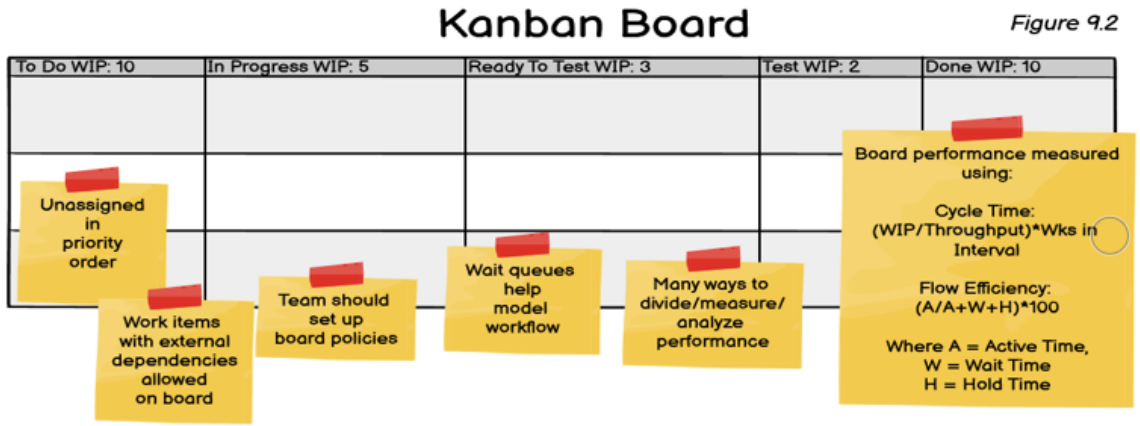


Figure 9.2

BRINGING IT ALL TOGETHER: THE BACKLOG AS A STREAMING CONVERSATION

- Remember, a backlog taxonomy is like a design thinking cone.
- Elaboration is nothing more than a recorded conversation about what can deliver value, starting with just opinions, and ending with executable facts as the conversation becomes more refined.
- Use a custom elaboration workflow meeting your needs for each work-item type in your backlog taxonomy. This facilitates “filling in the gaps” in the conversation.
- Using the default as provided by your backlog tool will not be enough to cover these elaboration gaps.
- Measuring one or more statuses in your workflow can be effective at identifying areas of inefficiency and the teams responsible for those areas.

BRINGING IT ALL TOGETHER: THE RISK AND DEPENDENCY MANAGEMENT SYSTEM

- Make sure you have statuses for Dependencies and Risks for each work-item type in the backlog taxonomy. This will:
    - Ensure you have a sub-conversation about these statuses in the overall conversation about each work-item in the backlog.
    - If the team determines no conversation is needed, mark it as “N/A,” but never skip the conversation status.
- Endeavor to start these conversations about Risks and Dependencies (via workflow statuses) as early as possible in the value stream prior to scrum team execution for related work. This will greatly simplify events like PI planning. This effort will also protect scrum teams from workflow interruptions and backlog starvation which impedes continuous ready state.
- Don’t force scrum teams to accept stories with external dependencies into a sprint. Doing so will greatly affect their ability and desire for successful scrum execution on behalf of the organization.
- Reinforcing this rule, in combination with use of an effective, measurable workflow preceding scrum team execution will ultimately make your value stream more robust and efficient at managing risks and dependencies.