Strategies for Agile Portfolio Management by Kenny Rubin

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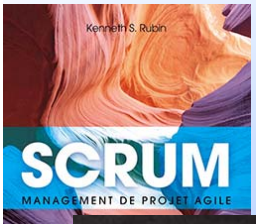
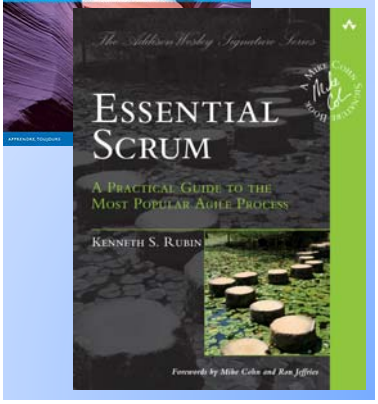
Background of Kenny Rubin

Author





Trainer/Coach

Trained more than 20,000 people in Agile/Scrum, SW dev and PM

Provide Agile/Scrum coaching to developers and executives

CST ScrumAlliance CERTIFIED ScrumTrainer

Experience

Former Managing Director

ScrumAlliance transforming the world of work

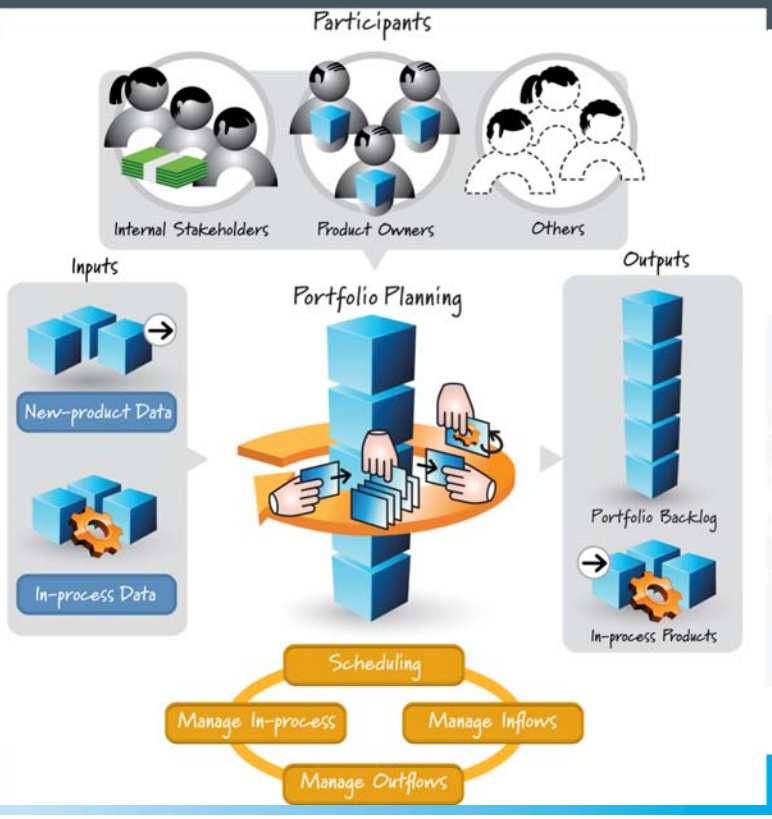
My first Scrum project was in 2000 for bioinformatics

GENOMICA

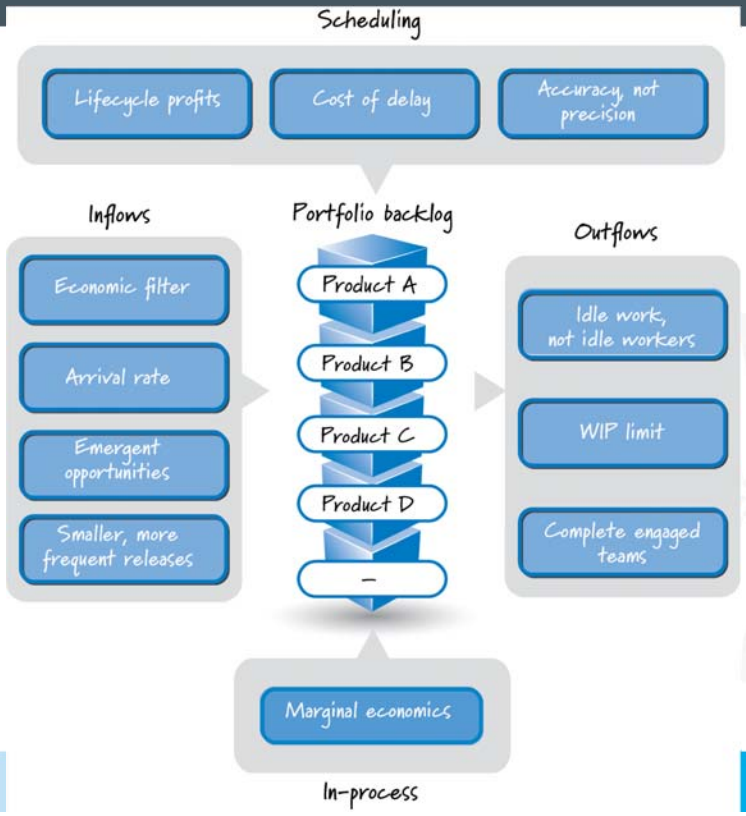
IBM **Executive**

ParcPlace

Portfolio Planning



Portfolio Planning Strategies



Discussion Questions – Scheduling / Prioritization Variables

When prioritizing your portfolio, what are the principal variables that you use?

How do you compare variables to make economically sensible tradeoffs?

Focus on Lifecycle Profits

Reasonable measure of business performance

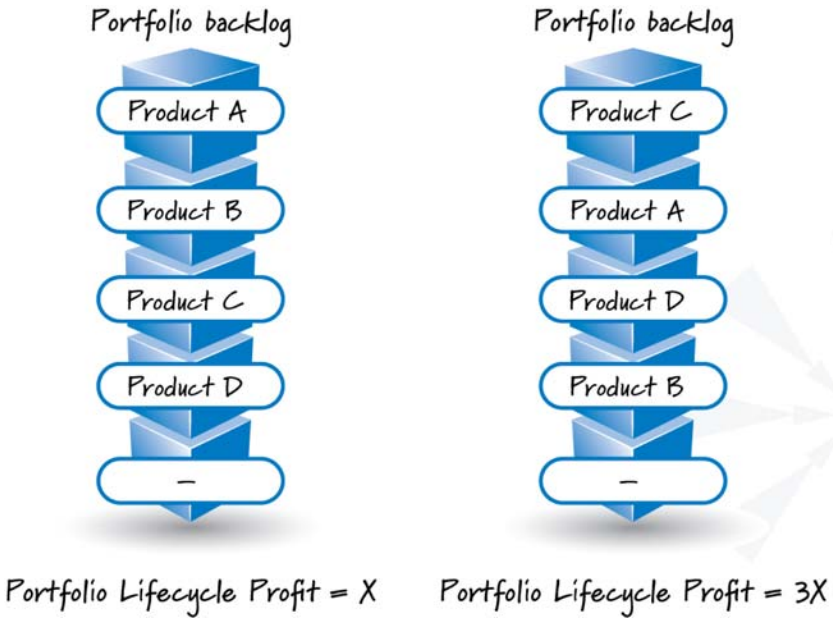
Provides common unit for comparing effects of key variables

- Waste
- Cycle time
- Variability
- Efficiency
- Customer Sat
- ...

→ Lifecycle profits

Source: Donald Reinertsen

Order Portfolio to Maximize Portfolio-Wide Lifecycle Profits



Discussion Question – Cost of Delay

If you delay shipping your current project/ product one month, what would be the cost of that delay (in lifecycle profits)?

Issues with Cost of Delay

Rarely quantified (<15% of the time)

Helps us decide if we should trade money for cycle time

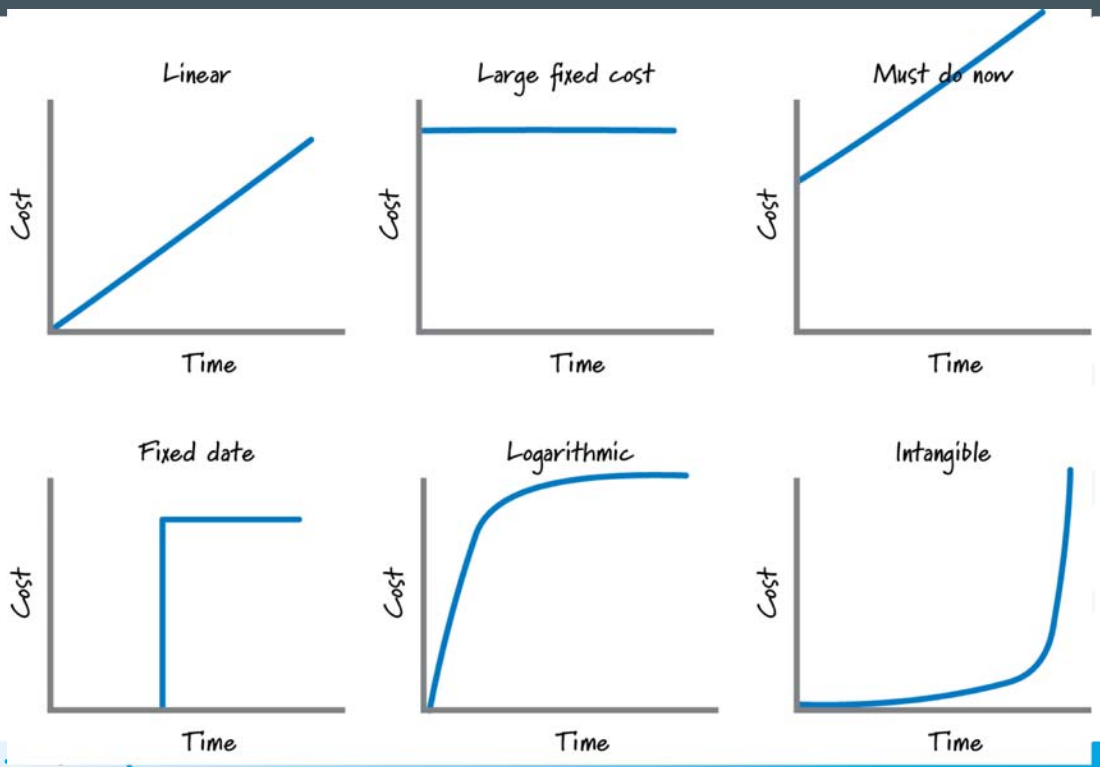
Helps us decide if we should trade cycle time for variability

Cost of Delay Example

Which project should we do first?

	Project A	Project B
Return on Investment	20%	15%
Cost of Delay (1 month)	$5,000	$75,000

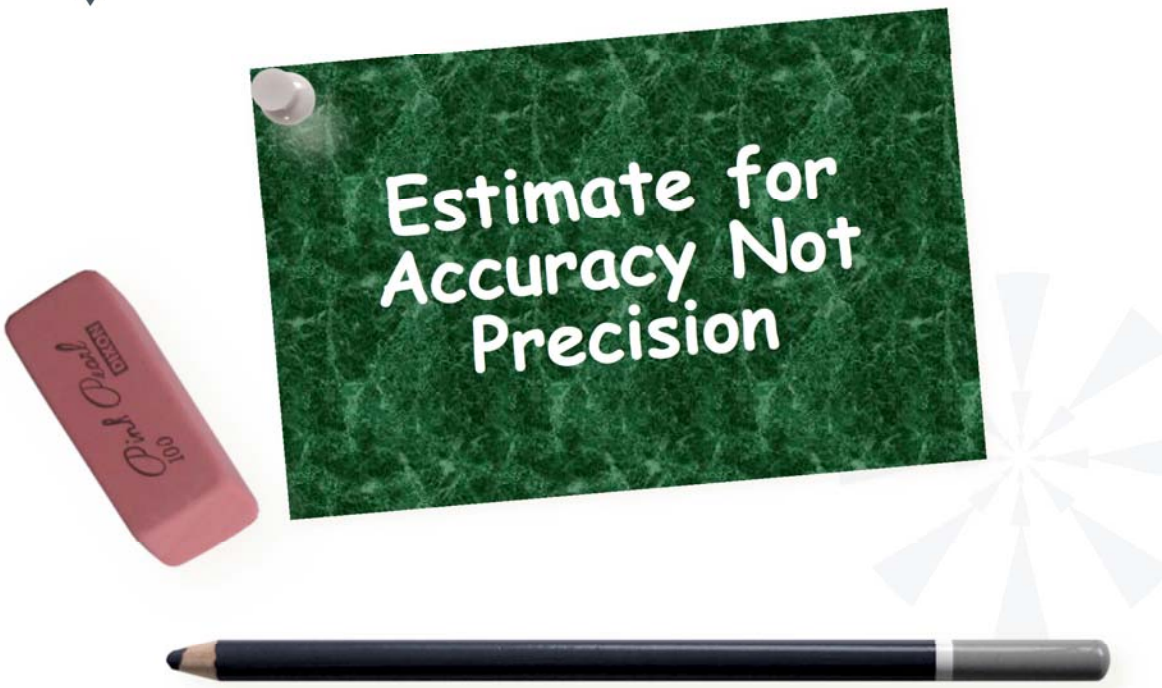
Cost of Delay Profiles



Cost of Delay is the Time Dimension

Cost of delay is not the only factor to consider when prioritizing items in the portfolio

It is the time dimension that must be considered because it affects all other prioritization variables such as cost, benefit, knowledge, and risk



Discussion Question – Accuracy Versus Precision

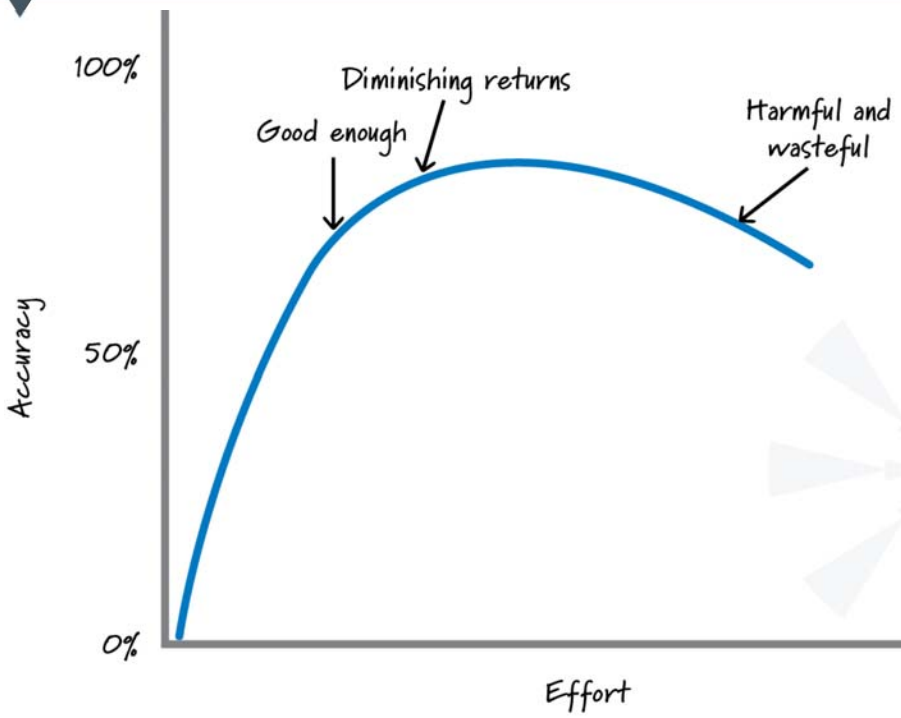
- Scenario:
  - Organization does nine-month release cycles
  - 100 candidate applications for each release cycle
  - Marketing asks IT to produce LOEs (level of effort estimates) for all applications
  - IT spends considerable time trying to make each LOE very precise
  - Oh yeah, the organization will only include 50 projects in next release

π = 3.1

π = 3.1415926535897 932384626433832 795028841971693

What are your thoughts on this scenario?

Effort Versus Accuracy When Estimating

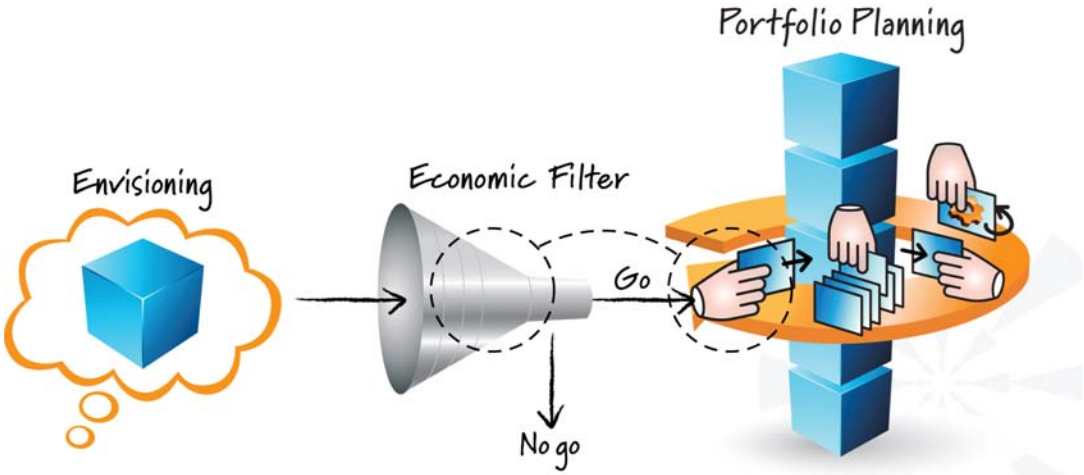


T-shirt Size Estimating

Size	Rough Cost Range
Extra Small (XS)	$10k to $25k
Small (S)	$25k to $50k
Medium (M)	$50k to $125k
Large (L)	$125k to $350k
Extra Large (XL)	>$350k

(an example)

Applying the Economic Filter

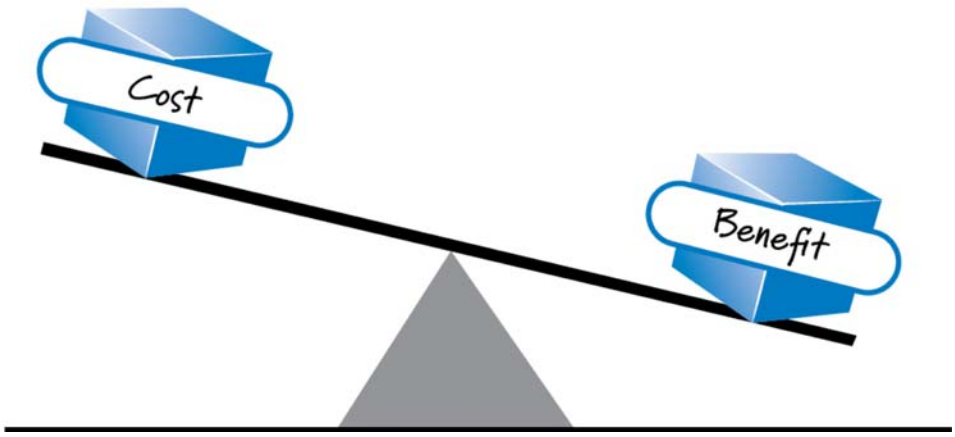


Discussion Question – Economic Filtering

- Scenario
  - A company is trying to decide if a development effort should be approved
  - They are debating whether it will cost $70k or $75k. Apparently at $70k it would be approved, at $75k it would not

What is your assessment of this situation?

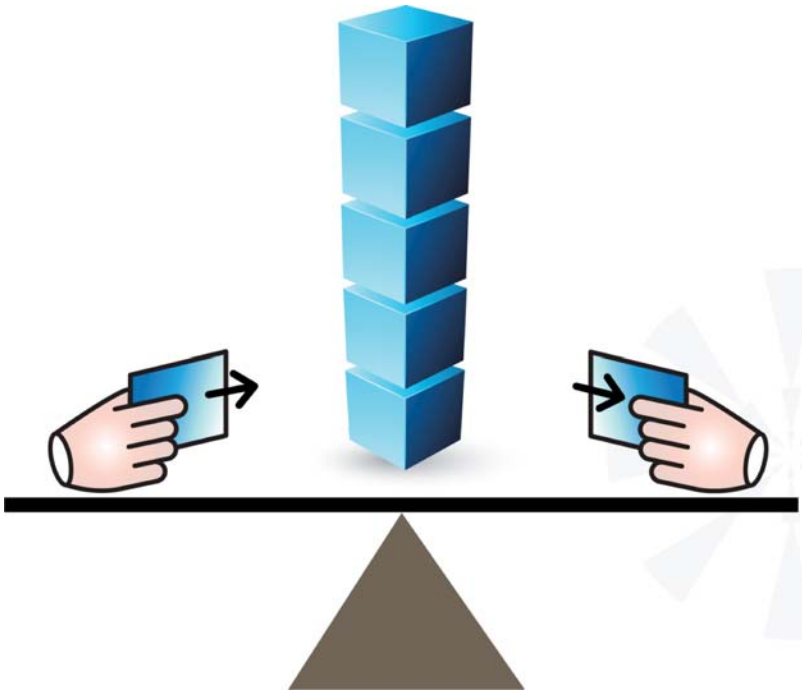
Simple Economic Filter—Benefit Should Far Exceed Cost



Discussion Question – Arrival Rate

What happens to a restaurant if a tour bus of hungry seniors unexpectedly arrives at dinner time?

Want To Balance Portfolio Inflow and Outflow Rates



Annual Strategic Planning

- Scenario:
  - Typically occurs in fiscal Q3
  - All projects for next fiscal year are simultaneously dropped into the portfolio

What are the issues with this approach?

What would you do to address the problem?

Introduce Smaller Products / Projects More Frequently

- Traditional approach violates the principles of:

  Keeping planning options open until the last responsible moment

  Using economically sensible batch sizes

- Addressed by:

  Introducing smaller products to the portfolio on a more frequent basis

Discussion Questions – Emergent Opportunities

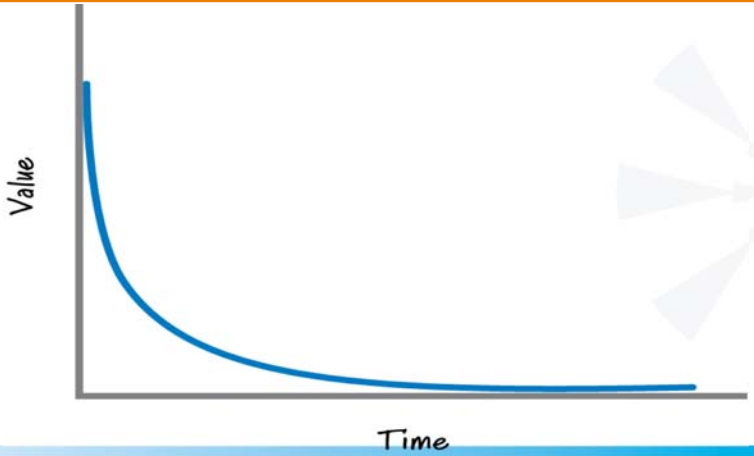
How quickly are you able to exploit an emergent opportunity?

How disruptive are such opportunities to your portfolio-management process?

Deal with Emergent Opportunities Quickly

Emergent opportunities arrive continuously and randomly

They are perishable—their values decay over time (frequently exponentially)

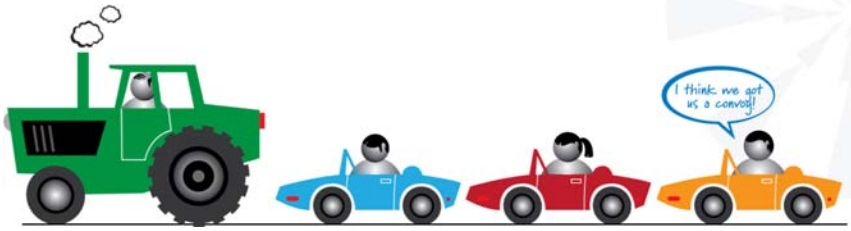


Discussion Questions – Project Sizes

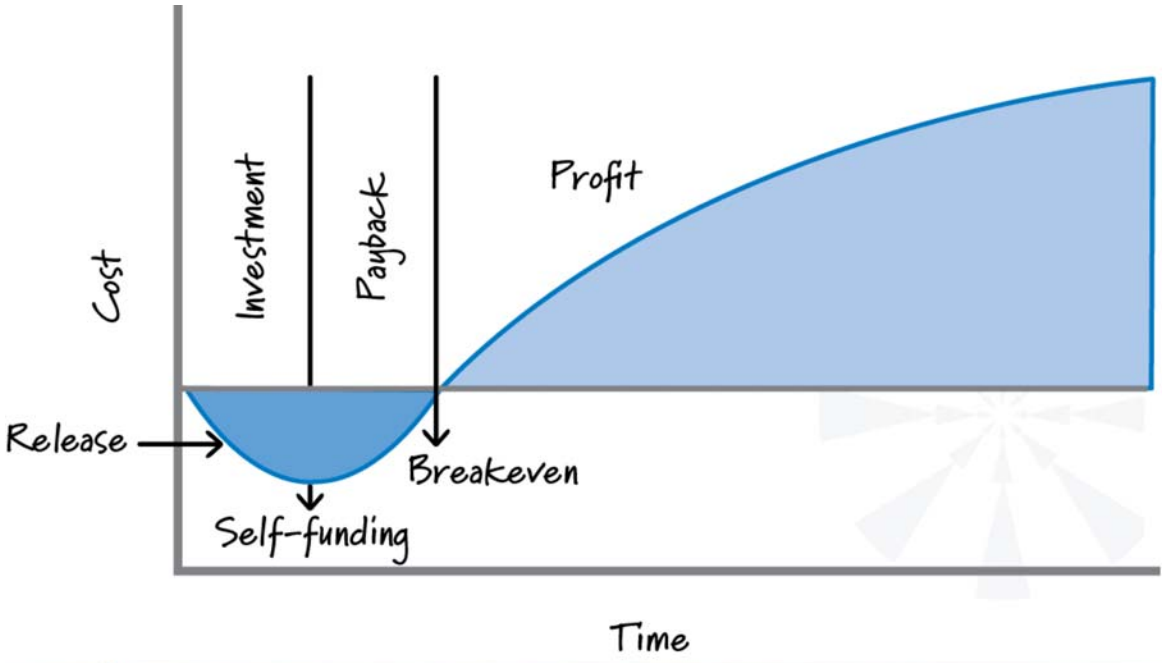
How does project size affect overall portfolio performance?

What happens if you get behind the large farm vehicle on a single lane country road?

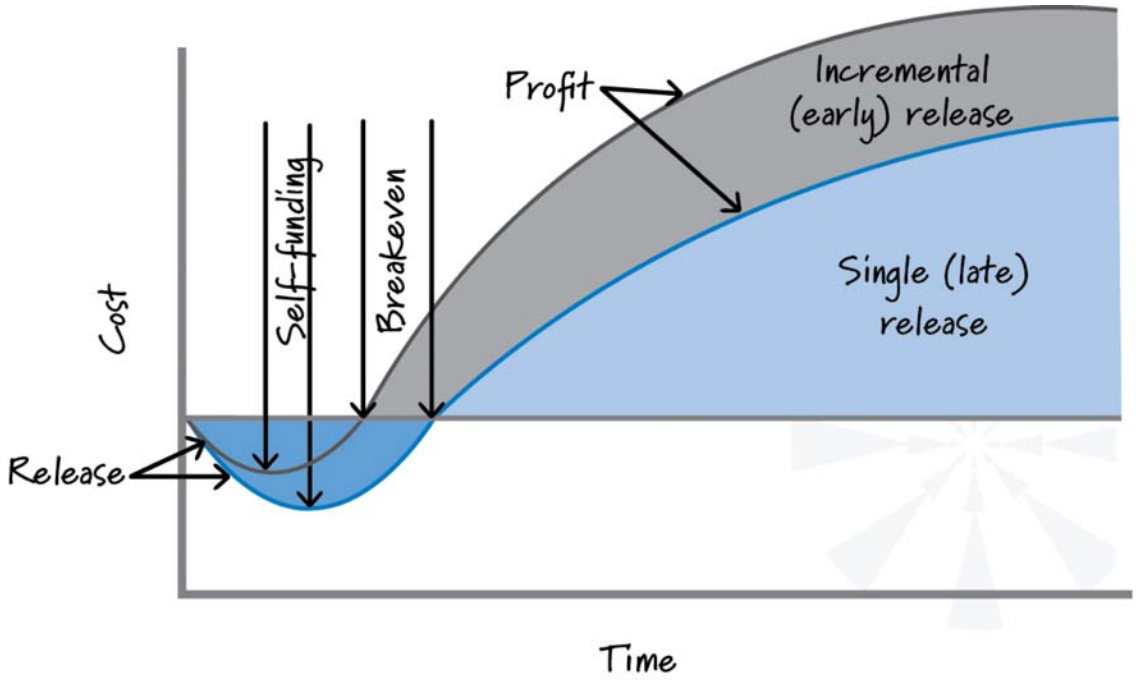
How do the lifecycle profits of a product compare between one large release and multiple, smaller releases?



Single Release



Multiple Releases

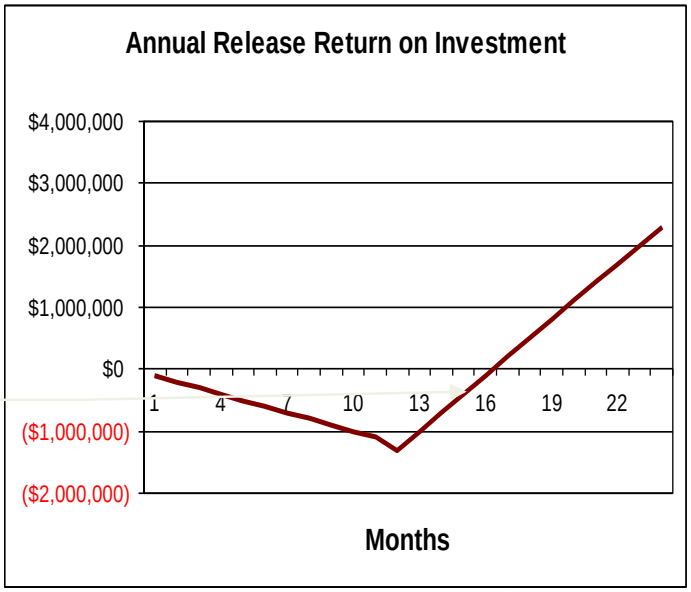


Evaluating Return on Single Release Strategy

- Feature Value:
  - All features = $300K/month
  - 1/2 features = $200k/month
  - 1/3 features = $150k/month
- Features begin earning money 1 month after release
- Each month of development costs $100K
- Each release costs $100K

Single Release
12 months

total cost: $1.3 M
total 2 year return: $3.6 M
net 2 year return: **$2.3 M**
Cash Investment: $1.3 M
Internal Rate of Return: **9.1%**



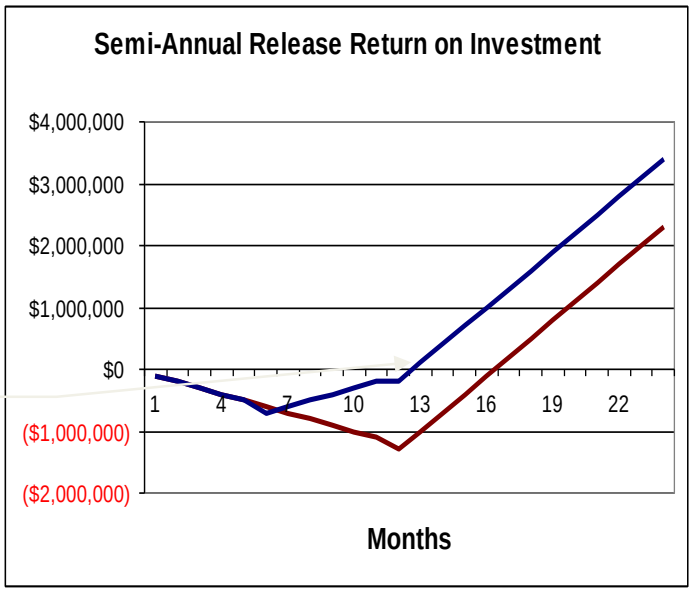
Example based on prior work by Jeff Patton

Evaluating Return on Semi Annual Release Strategy

- Feature Value:
  - All features = $300K/month
  - 1/2 features = $200k/month
  - 1/3 features = $150k/month
- Features begin earning money 1 month after release
- Each month of development costs $100K
- Each release costs $100K

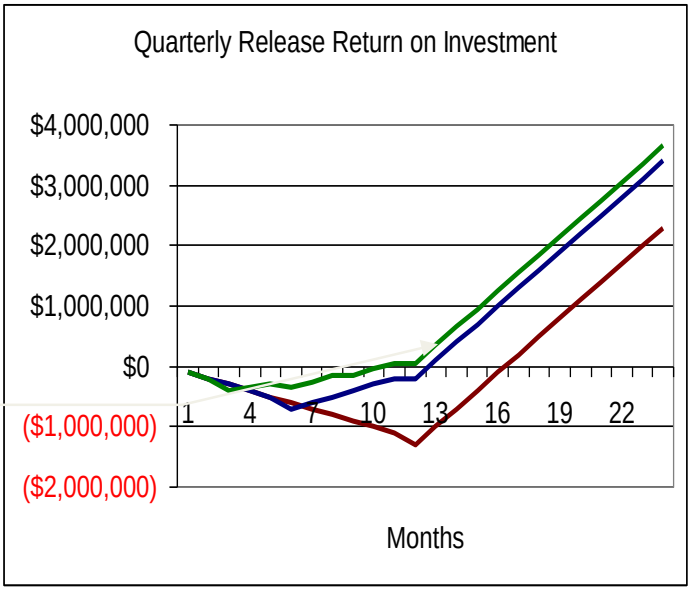
Semi Annual Release
6 month increments

total cost: $1.4 M
total 2 year return: $4.8 M
net 2 year return: **$3.4 M**
Cash Investment: $.7 M
Internal Rate of Return: **15.7%**

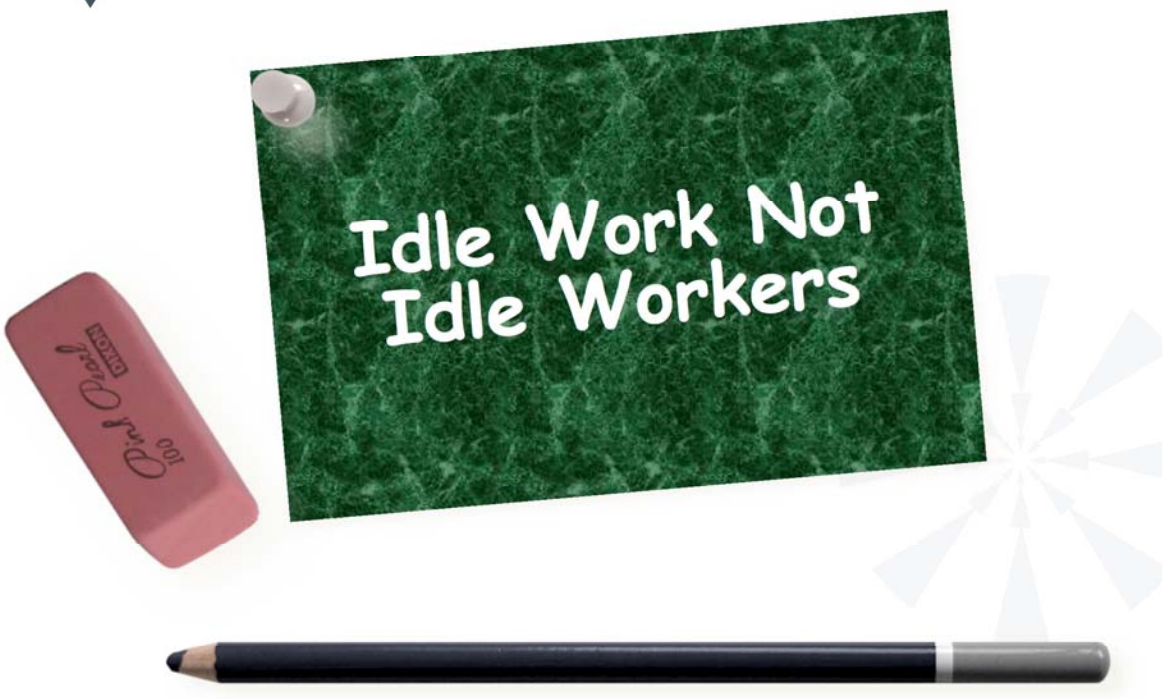


Evaluating Return on Quarterly Release Strategy

- Feature Value:
  - All features = $300K/month
  - 1/2 features = $200k/month
  - 1/3 features = $150k/month
- Features begin earning money 1 month after release
- Each month of development costs $100K
- Each release costs $100K



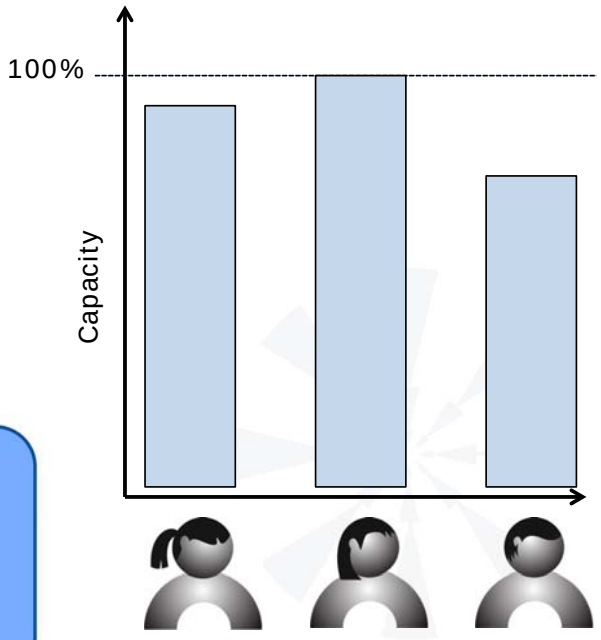
Quarterly Release
3 month increments
total cost: $1.6 M
total 2 year return: $5.25 M
net 2 year return: **$3.65 M**
Cash Investment: $0.45 M
Internal Rate of Return: **19.5%**



Discussion Question – Addressing Available Capacity

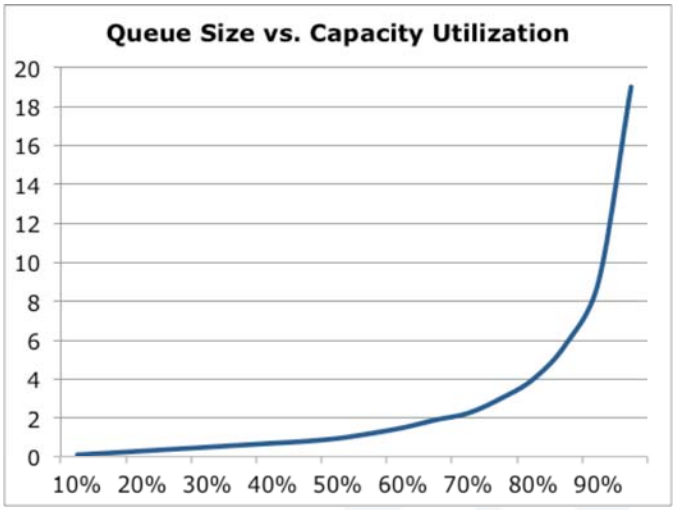
- Scenario
  - We have started working on items in our portfolio, but we have some team members who are not yet at 100% capacity

Should we start more projects from the portfolio to get them to 100% capacity?

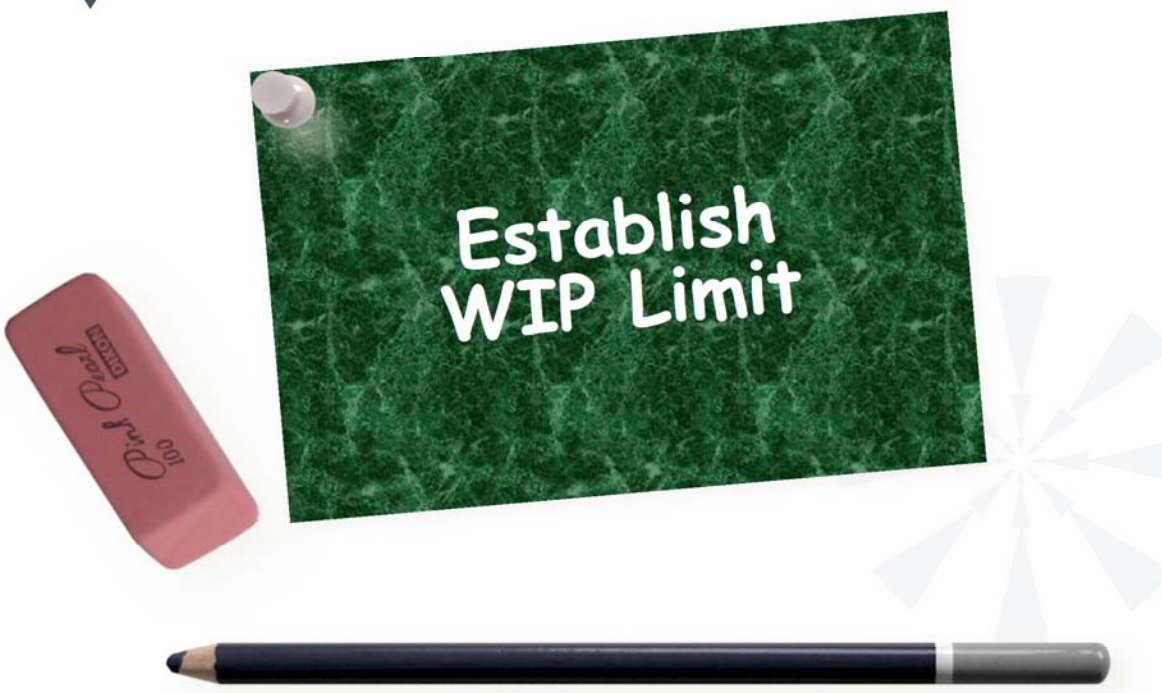


Focus on Idle Work Not Idle Workers

Watch the Baton Not the Runners†



†Source: Larman & Vodde



Discussion Question – WIP Limit

Why should a good restaurateur not seat paying customers at an available table if 30% of the servers called in sick that evening?

What is a WIP Limit?

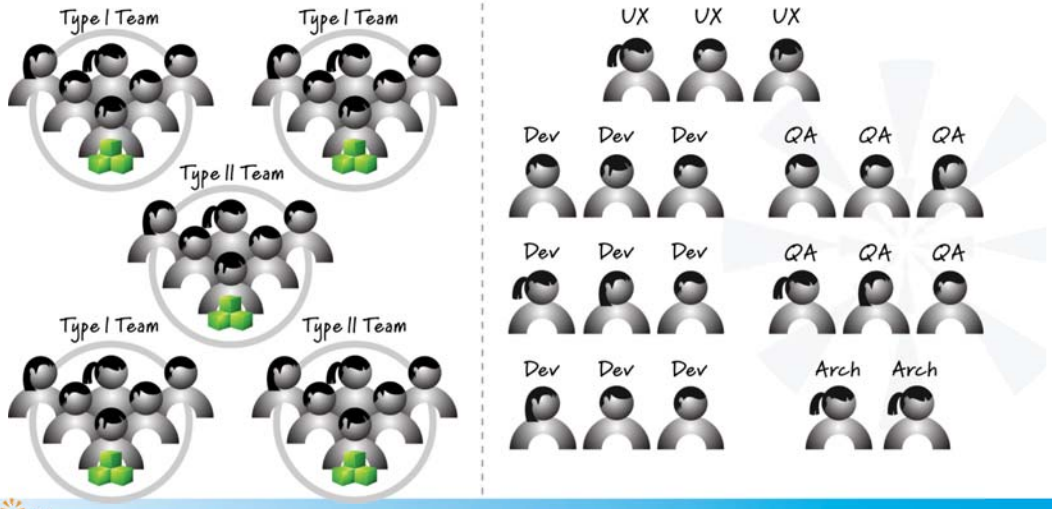
A work-in-process (WIP) limit would state how many projects we are willing to have active at the same time

Goal is to match WIP with available capacity

In Agile Portfolio Management, the Unit of Capacity is the Team

We favor long-lived teams that as a unit have a known capacity to deliver value

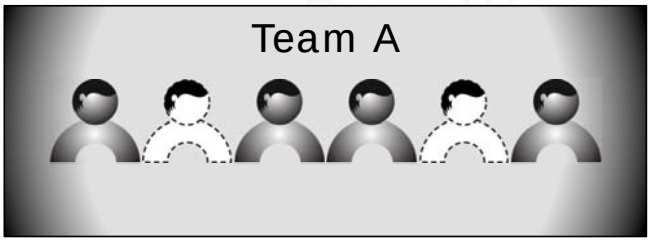
Determine capacity in terms of teams



Discussion Questions – Team Availability

Do you start a project before the full team is available to work on it?

If so, what are the consequences?



Wait Until Complete Team is Available

Don’t start a new project with a partial team

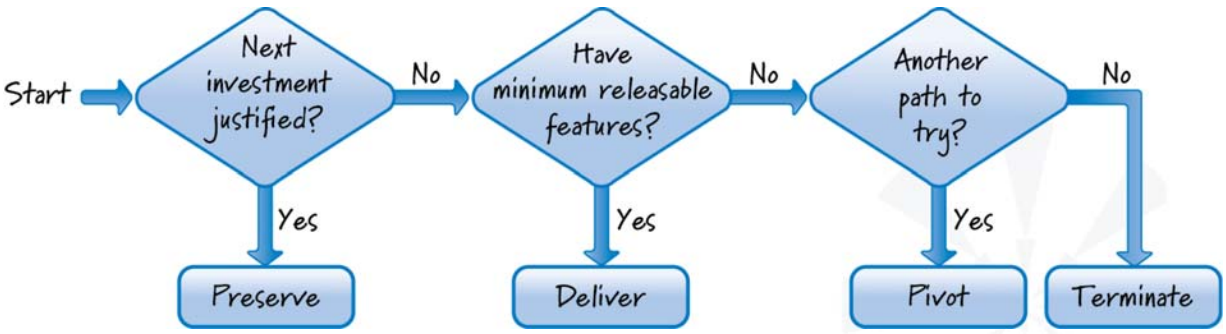
Wait until you have at least one full team

Preferably wait until you have all necessary teams

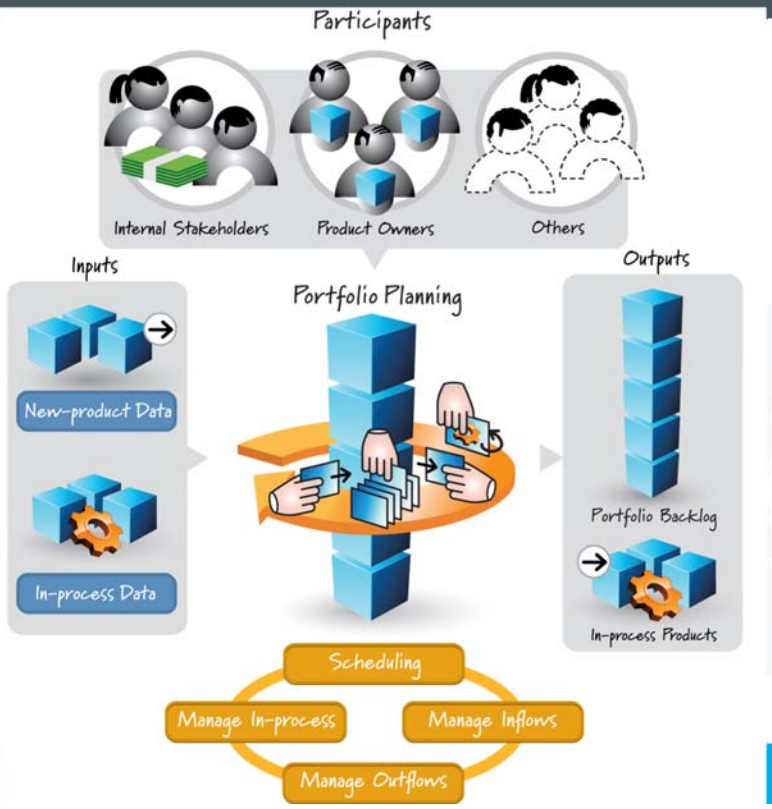
Discussion Question – Would You Keep Spending?

If you spend the first dollar on developing a product, is there any circumstance under which you would terminate development?

Marginal Economics



Summary



Based on Chapter 16 of the Book Essential Scrum, by Kenny Rubin

Chapter 16
PORTFOLIO PLANNING

Most organizations want or need to produce more than one product at a time. These multiproduct organizations need a way to make economically sound choices regarding how to manage their product portfolios. They also need their portfolio management or governance processes to align well with core agile practices; otherwise, there will be a fundamental disconnect with the agile approach being used at the individual product level. This chapter lays out 11 strategies for portfolio planning, grouped by scheduling, product inflow, and product outflow. It ends with a discussion of how to determine whether or not more work should be invested in in-process products.

Overview

Portfolio planning (or portfolio management) is an activity for determining which portfolio backlog items to work on, in which order, and for how long. A portfolio backlog item can be a product, a product increment (one release of a product), or a project (if your organization prefers to plan work around projects). In this chapter I use the word *product* generically to mean all types of portfolio backlog items.

In my experience, most organizations (agile or otherwise) do a very poor job of portfolio-level planning. Many have portfolio-level planning processes that are fundamentally at odds with core agile principles. When this happens, decisions are made at the portfolio level that disrupt the fast, flexible flow of work. In this chapter I discuss how to avoid this disconnect by performing portfolio planning in a manner that is well aligned with core agile principles.

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