Strategies for Agile Portfolio Management
DFW Scrum Users Group
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by Kenny Rubin

Background of Kenny Rubin

**Author**

**Trainer/Coach**

Trained more than 19,000 people in Agile/Scrum, SW dev and PM

Provide Agile/Scrum coaching to developers and executives

**Experience**

Former Managing Director

My first Scrum project was in 2000 for bioinformatics

Executive

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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

Source: Donald Reinertsen

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**Order Portfolio to Maximize Portfolio-Wide Lifecycle Profits**

Portfolio Lifecycle Profit = X

Portfolio Lifecycle Profit = 3X

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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?

<table>
<thead>
<tr>
<th></th>
<th>Project A</th>
<th>Project B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Investment</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Cost of Delay (1 month)</td>
<td>$5,000</td>
<td>$75,000</td>
</tr>
</tbody>
</table>

- Why?
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.
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
Effort Versus Accuracy When Estimating

![Graph showing the relationship between effort and accuracy.](image)

T-shirt Size Estimating

<table>
<thead>
<tr>
<th>Size</th>
<th>Rough Cost Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra Small (XS)</td>
<td>$10k to $25k</td>
</tr>
<tr>
<td>Small (S)</td>
<td>$25k to $50k</td>
</tr>
<tr>
<td>Medium (M)</td>
<td>$50k to $125k</td>
</tr>
<tr>
<td>Large (L)</td>
<td>$125k to $350k</td>
</tr>
<tr>
<td>Extra Large (XL)</td>
<td>&gt;$350k</td>
</tr>
</tbody>
</table>

(an example)
Applying the Economic Filter
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.
Discussion Question – Arrival Rate

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

Embrace Emergent Opportunities
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)

![Graph showing value decay over time](image)
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?
**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.
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?
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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