Agile and Lean Roadmapping: Incorporating Change at Every Level of Product Planning

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Why Bother Planning

- Innovation?
- Delivery?
- Solve a customer’s problem?
- Impact?
- Discussion!
Why *Product* Roadmaps?

• Gain some perspective
  • What’s now?
  • What’s later?
• Alternatives?
• Experiments?
# Roadmap Becomes a Time-Based Wishlist

**Common “Agile” Roadmap for a Product: Six-Quarter View**

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Release</strong></td>
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<tr>
<td><strong>Feature Sets</strong></td>
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</table>
Thinking in Quarters Helps Some People...

- Can see the big picture: where the product is headed
- More resilient than a yearly plan for deliverables and budget

Photo by Rainer Kriwien on Unsplash
Quarterly Roadmaps Similar to Triptiks

- Overall destination doesn’t change
- Local detours already defined
- You don’t plan to take alternative side roads even though they are visible
- The questions are:
  - How and when to get there (cost and schedule)

Where’s the Feedback?

Hypothesis — Experiment — Results — Learn
Agile Approach

The team produces shippable product on a regular basis

Cross-functional team

Ranked Backlog

Ideas

Responsible Person

Demo

Retrospective
Outcomes vs Outputs

- Outcomes answer questions, inform future work
- Outputs is finished work
- Too often the roadmap is only about deliveries

https://unsplash.com/photos/-Cmz06-0btw
Consider Your Customer’s Problem and Your Agile Approach

<table>
<thead>
<tr>
<th>Customer Problem</th>
<th>Well-Understood (Keep the Lights On)</th>
<th>Mostly Understood (Current Product Set)</th>
<th>Vague or Unclear (Possible transforming Idea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadmap Duration</td>
<td>As long as is reasonable: When do you want to EOL?</td>
<td>Show MVPs in roadmap and limit to reasonable planning horizon</td>
<td>Show Experiments, Demos, Big Ideas</td>
</tr>
<tr>
<td>Reasons for an agile approach</td>
<td>Feedback useful for knowing when to stop</td>
<td>Feedback-Informed</td>
<td>Based on fast feedback cycles</td>
</tr>
</tbody>
</table>
Roadmap Assumptions

• What the customer wants

• When the customer wants it

• Known feature sets all have the same value

• New understanding (features) arrives on a regular cadence (organization, product, team)
Reality of Features…

- Some feature sets have more changes, more features
- Arrival rate of changes/new features is unpredictable
- Some features more valuable than others
- Teams do not have perfect prediction
- Result: “More! Change!”
Estimation Problems for Long-Term Planning

- We are not very good at estimating long and large efforts.
- Too often request for commitments instead of accurate estimates.
Misuse of Quarterly Planning

• Start to prepare 6 weeks out (before we know enough)

• “How much can we get into a quarter’s worth of plan?”

• Can we get the project/program to commit?

• “Push” planning
Problems with Larger Planning

• Groupthink: “We can do this!”

• “Commitments” create a committed plan instead of feedback informing later work

• Larger planning creates less adaptability

• Estimation uncertainty increases

• Interdependency uncertainty increases
Seeing Interdependencies

• Less frequently we plan, the more we tolerate curlicue features

• Don’t deal with root cause of interdependencies
“The best way to predict your future is to create it” — Peter Drucker
Change Words to Help See Largeness

• Epic and themes are not standard across tools

• Terms hide the complexity

• Change “epic” and “theme” to “feature set”
Quick Feature Set Workshop

1. (7 mins) Teams of three (dev/test/BA or PO) write cards together

2. (7 mins) Entire team: De-duplicate and see what you missed.

3. Check to see if you need to iterate on steps 1 and 2

4. (2 mins) Count the features.

5. (2 mins) Using historical cycle time, how long will this work take? If you don’t know, use three days and assume you will swarm/mob.

6. Count what a team can deliver in a quarter

7. Slot the various features or feature sets into one quarter or longer
Counting Features is Not Estimating Tasks

• Customers buy features, not tasks

• Workshopping more small stories helps teams stick with features
### Rolling Wave Example: One Quarter Agile Roadmap, One Month Wave

<table>
<thead>
<tr>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure Login, Part 1</td>
<td>Secure Login, Part 1</td>
<td>Secure Login, New ID</td>
</tr>
<tr>
<td>Admin, Part 1</td>
<td>Diagnostics, Part 1</td>
<td>Admin, Part 2</td>
</tr>
</tbody>
</table>

Stories are in Yellow. Second and third months grayed to denote uncertainty.

- MVP for release
- Demo
- MVP for release
- Demo
- MVP for release
- Demo
# One Month Rolling Wave

**Product Example: Initial One Month Agile Roadmap**

<table>
<thead>
<tr>
<th>Internal Release 1</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Secure Login, Part 1</td>
<td>Secure Login, Part 1</td>
<td>Secure Login, Part 1</td>
<td>Secure Login, Part 1</td>
</tr>
<tr>
<td></td>
<td>Admin, Part 1</td>
<td>Diagnostics, Part 1</td>
<td>Diagnostics, Part 1</td>
<td>Diagnostics, Part 1</td>
</tr>
</tbody>
</table>

**Smaller stories inside a walking skeleton**

- Secure Login 1
- Secure Login 2
- Admin 1
- Admin 2
- File Transfer 1
- File Transfer 2

- Secure Login 3
- Secure Login 4
- Diagnostics 1
- Diagnostics 2
- File Transfer 3

- Secure Login 5
- Secure Login 6
- Diagnostics 3
- Diagnostics 4
- File Transfer 4

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MVP for release → Demo
# After One Week

*Product Example: Initial One Month Agile Roadmap After One Week*

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure Login, Part 1</td>
<td>Secure Login, Part 1</td>
<td>Engine Part 1</td>
<td>Engine Part 1</td>
</tr>
<tr>
<td>Admin, Part 1</td>
<td>Diagnostics, Part 1</td>
<td>Text Transfer, Part 1</td>
<td>Text Transfer, Part 1</td>
</tr>
</tbody>
</table>

All Changed

Smaller stories inside a walking skeleton

- Secure Login 1
- Secure Login 2
- Admin 1
- Admin 2
- File Transfer 1
- File Transfer 2

- Secure Login 3
- Secure Login 4
- Diagnostics 1
- Diagnostics 2
- File Transfer 3
- File Transfer 4

- Engine 1
- Engine 2
- Text Transfer 1
- Text Transfer 2
- File Transfer 4

- Engine 3
- Engine 4
- Text Transfer 3
- Text Transfer 4
- File Transfer 4

Used MVP to make decisions

Demo

MVP for release

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When You Need Feedback

• Uncertainty or experiments
• Large efforts (programs)
• Which problems to solve?
• Which possible solutions might work?
• How can we deliver?
Adaptability and Resilience

• Adaptability is about being able to manage change and continue

• Resilience is about returning to a reasonable state
Can We Encourage Planning Change?

• When does the quarterly plan change?

• Do you want to change more often than the teams can deliver something?

• How can you build adaptability and resilience into your planning?
Consider Words

- Feature sets instead of epics/themes and various minimums:
  - Minimum Viable Experiment (learn fast)
  - Minimum Viable Product (small product might be useful)
  - Minimum Marketable Feature (something a customer can use)
  - Minimum Adoptable Feature Set (what the customer needs to use it)
Flow-Based Roadmap
(Scope-Based Wishlist)

Lean Product Roadmap:
Once teams complete the MMFs, pull from below the black line

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<td>MMF 1</td>
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Enough for a release

Enough for a release

Enough for a release

Enough for a release

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Possible One Quarter View

One Quarter Flow Roadmap

Month 1
- Secure Login, Part 1
- Admin, Part 1
- File Transfer, Part 1
- MVP

Month 2
- Secure Login, New ID
- Admin, Part 2
- Engine, Part 1
- MVP

Month 3
- Text Transfer, Part 1
- Admin, Part 2
- Engine, Part 2
- MVP

Secure Login, Part 1
Diagnostics, Part 1
File Transfer, Part 1

Text Transfer, Part 1
Admin, Part 2
Engine, Part 1

Secure Login, Part 3
Admin, Part 2
Engine, Part 2
The Big Black Line Helps Set Expectations

- About what we need to deliver (not “all” of it)
- What is enough
- When we want to change
- How feedback will inform the planning
Roadmap vs. Portfolio

• The product roadmap optimizes for this product’s capabilities

• The project portfolio optimizes for the organization’s strategy

• A given product release fulfills a part of the organization’s strategy
Product Value Team Manages the Rolling Wave Plan

• Do you still talk about “single wringable neck?”
Agile Teams

Product Value Team
Decides what to do when for a project or program. Shepherds business value of product

Product Development Team
or Feature Team
Decides how to implement features and delivers the feature

Project Portfolio Team
Decides the rank of each project/program to fulfill organization strategy

Project or Program
Product Value Team

- Product Strategy
- Product Tactics
- Product Specifics
Hierarchical PVT

Typical Approach to Product Value Team

Product Manager

Primary Communication

Customer

Outside the Organization

Inside the Organization

Admin PO

Search PO

Engine PO

Admin Cross-functional Team

Search Cross-functional Team

Engine Cross-functional Team
Agile Product Value Team for a Program

- Create a small world network that includes the customer
- Product manager
- Product Owners
- With multiple feature teams, a PO for each team
How Often Do Your Teams Work with Your Customers?

• Large changes
• Risky changes
• Need more feedback
Why Managers Want Commitments

• “How much” thinking is from serial planning and approaches: one delivery

• Agile approaches encourage multiple deliveries

• How little can we do to deliver value?

• Instead of commitments, can we deliver and replan?
Product Value Team Replans

• What value has the program/project delivered?

• What would provide more value if we changed the rank, added, or subtracted?

• Are we done yet? (Have we provided enough value that we can stop?)
Questions for you

• Timebox or scope-box?
• What minimums make sense?
• Show experiments?
• Feature sets instead of Huge Chunks of work?
• Pull-planning instead of push-planning?
Roadmaps Can Help…

- What you don’t do
- How small an experiment you can plan
- Alternatives to consider
Scaling is not about multiplying what you do for one team. Scaling is about removing extra steps as you grow.
Let’s Stay in Touch

- Pragmatic Manager: www.jrothman.com/pragmaticmanager

- Please link with me on LinkedIn

- Look for the PO book and workshop in the fall