Give me six hours to chop down a tree and I will spend the first four sharpening the axe.

- Abraham Lincoln

Agile Planning

Techniques for sharpening the saw

Overview

- Traditional Plans
- Agile Planning
- Planning a Release
- Techniques of Product Backlog Ownership
- Techniques of Iteration Planning
- The Daily Plan

The Winchester House

Perfect execution of a clear vision with no plan

The Mars Climate Orbiter

Lockheed Martin used Imperial units instead of metric units as specified by NASA.

Total project cost $327.6 million.

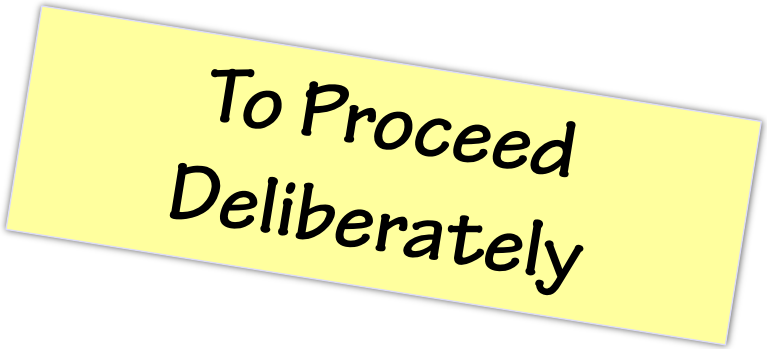
The spacecraft was destroyed by atmospheric stresses and friction during entry.

Traditional Plans

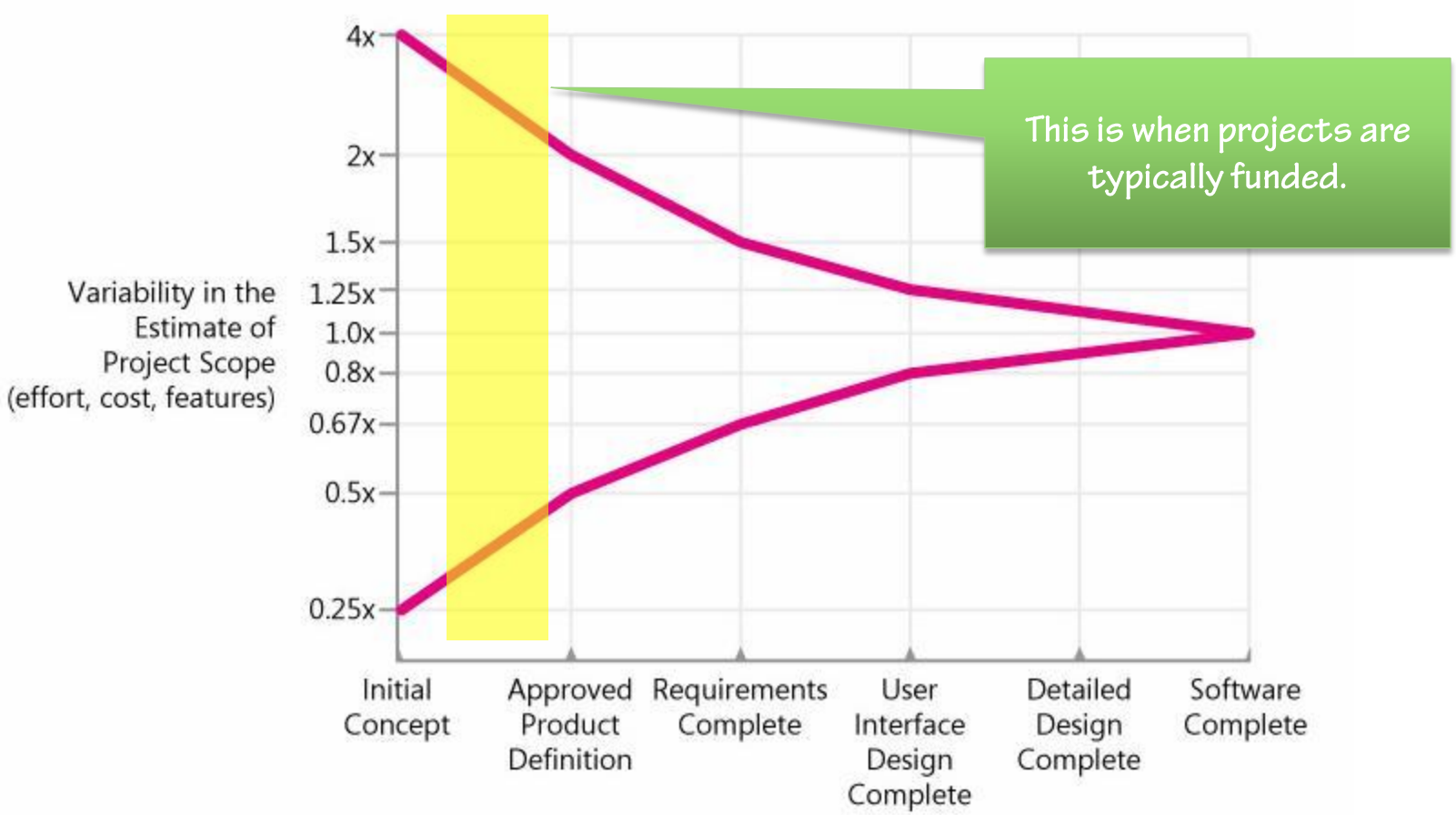
Because they work so well

Why We Needs Plans

- Reduce risk
- Make informed decisions
- Reduce uncertainty
- Establish trust
- Convey a tangible vision
- So customers can depend on you

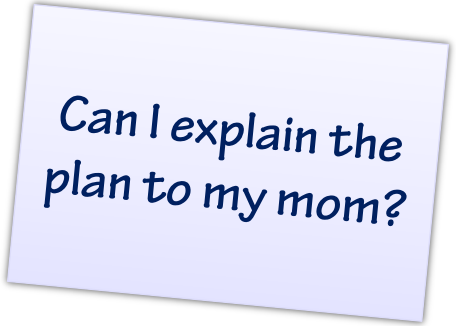


Cone of Uncertainty



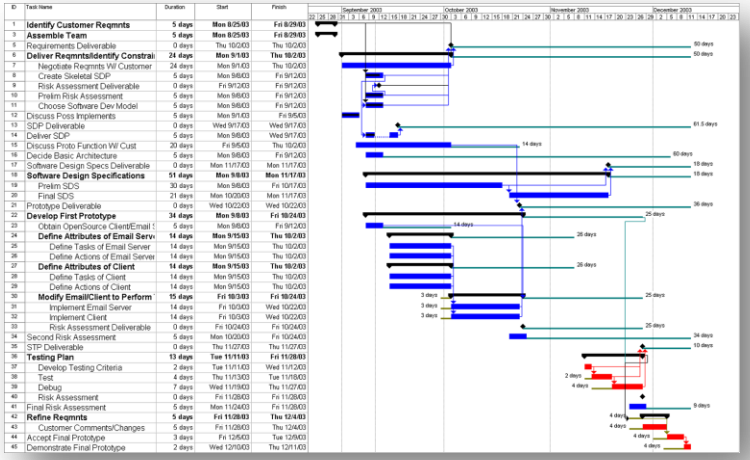
A Good Plan Is

- Clear
- Reliable
- Used
- Available



Traditional Plans

- Plan activities, not deliverables
- Rely on strict sequencing
- Time over runs are passed to the next phase



- Are developed for systems instead of features
- Assert that the end result is known

Building a Traditional Plan

- **When the business side dominates**
  - Functionality and dates are mandated
  - Little regard for reality or whether the developers understand the requirements
  - Lengthy upfront requirements and signoff process
  - Features are aggressively dropped as deadline approaches

- **When technologists dominate**
  - Technical jargon replaces the language of the business and developers lose the opportunity to learn from listening
  - May trade quality for additional features
  - May only partially implement a feature
  - May make decisions without feedback from the business

The Unspoken Reality

- **We cannot perfectly predict a software schedule**
  - Too many intangibles
  - Developers have a notoriously hard time estimating

- **We can't accurately say what will be delivered**
  - As users see the software, they come up with new ideas
  - Scope **should** change as new information is uncovered

Discussion

Good Projects	Bad Projects

Culture eats strategy
for breakfast
– Ford Motor Company War Room

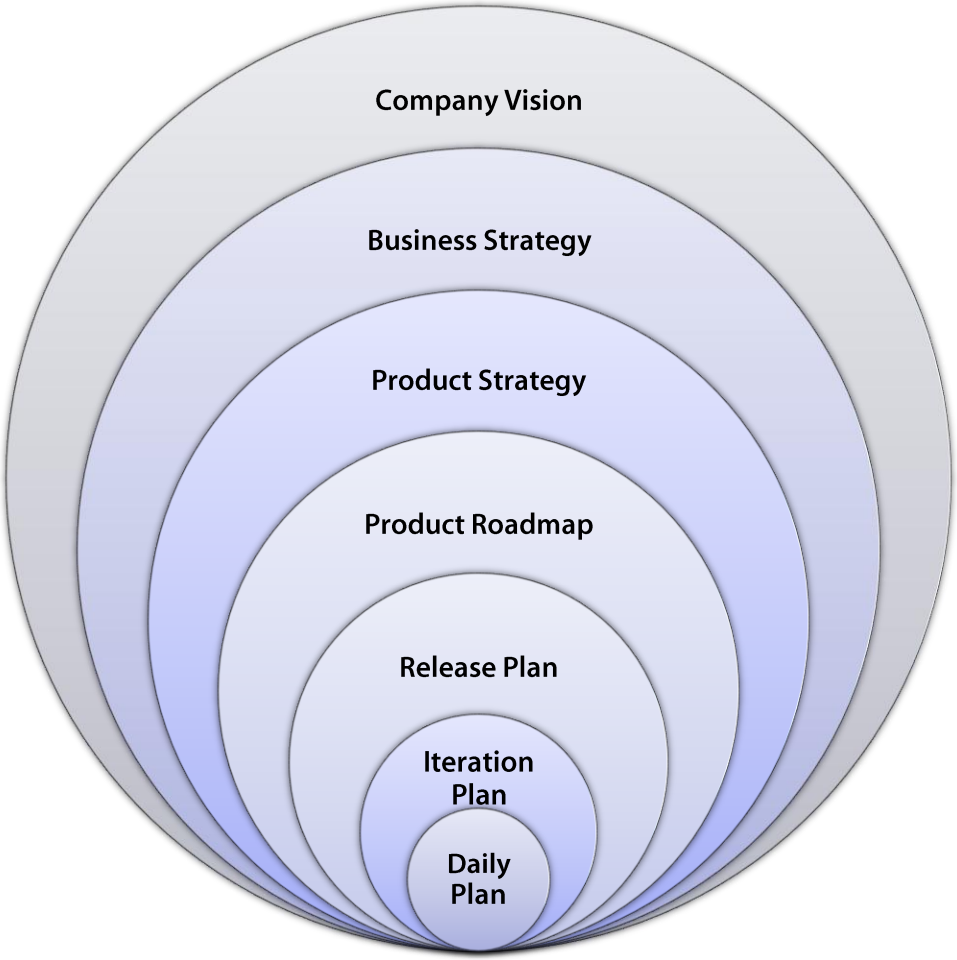
Agile Planning

A Better Way

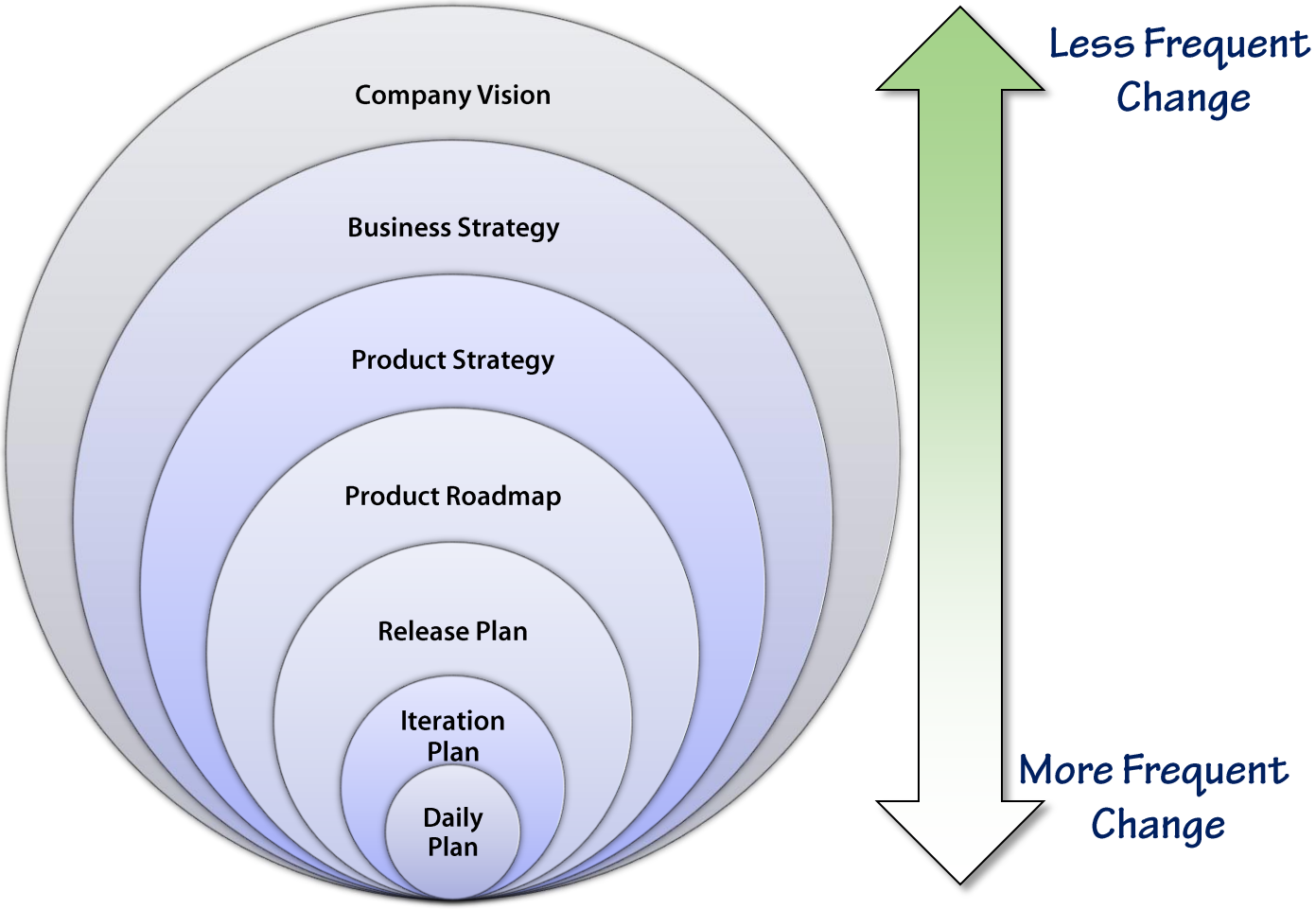
Agile Planning

- Plan constantly, not just in the beginning
- Planning is an activity, not a document
- Don’t try to control change, encourage it
- Be constantly transparent
- Focus on historical performance, not hyper-optimal scenarios
- Changing the plan doesn’t mean changing timing

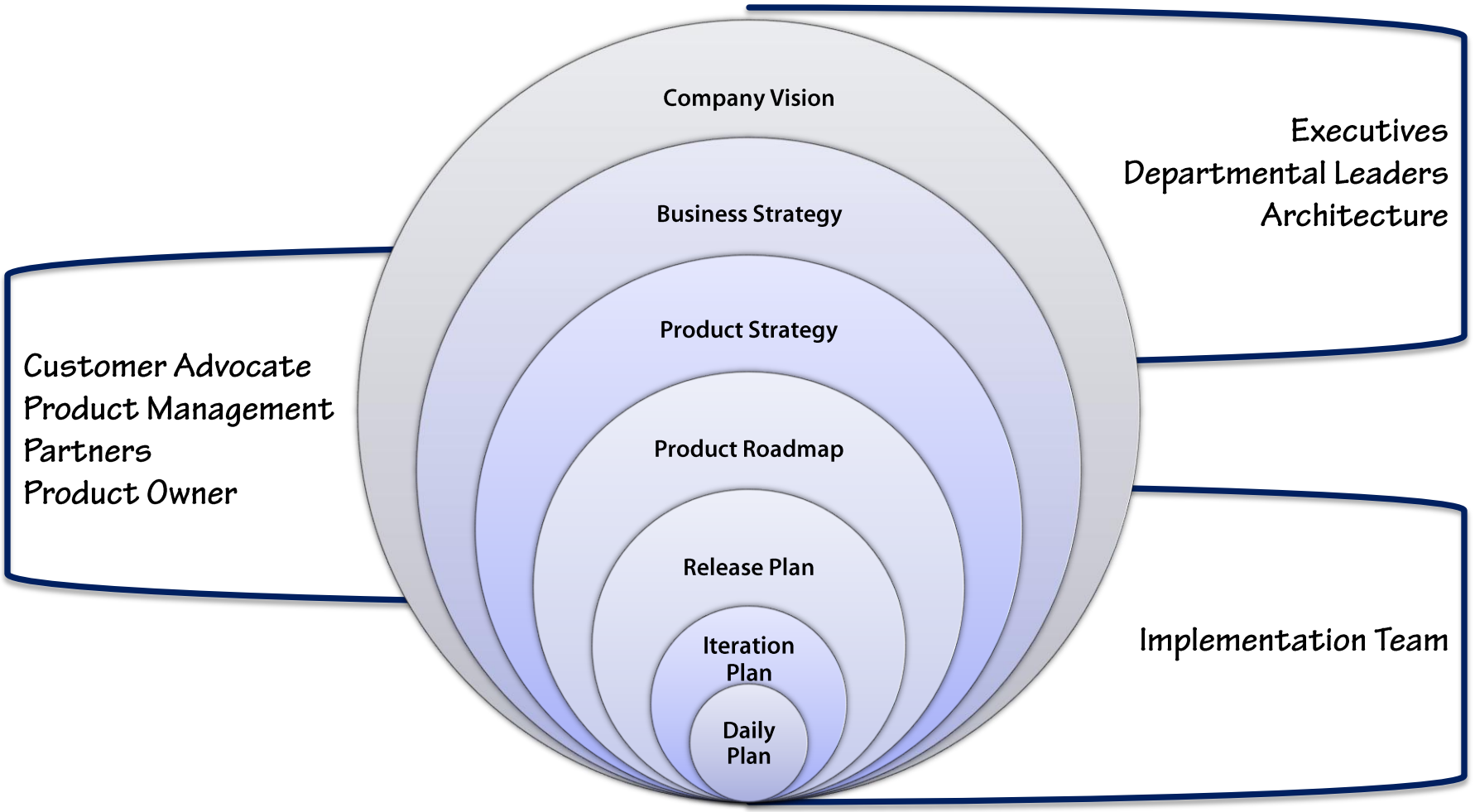
Levels of Agile Planning



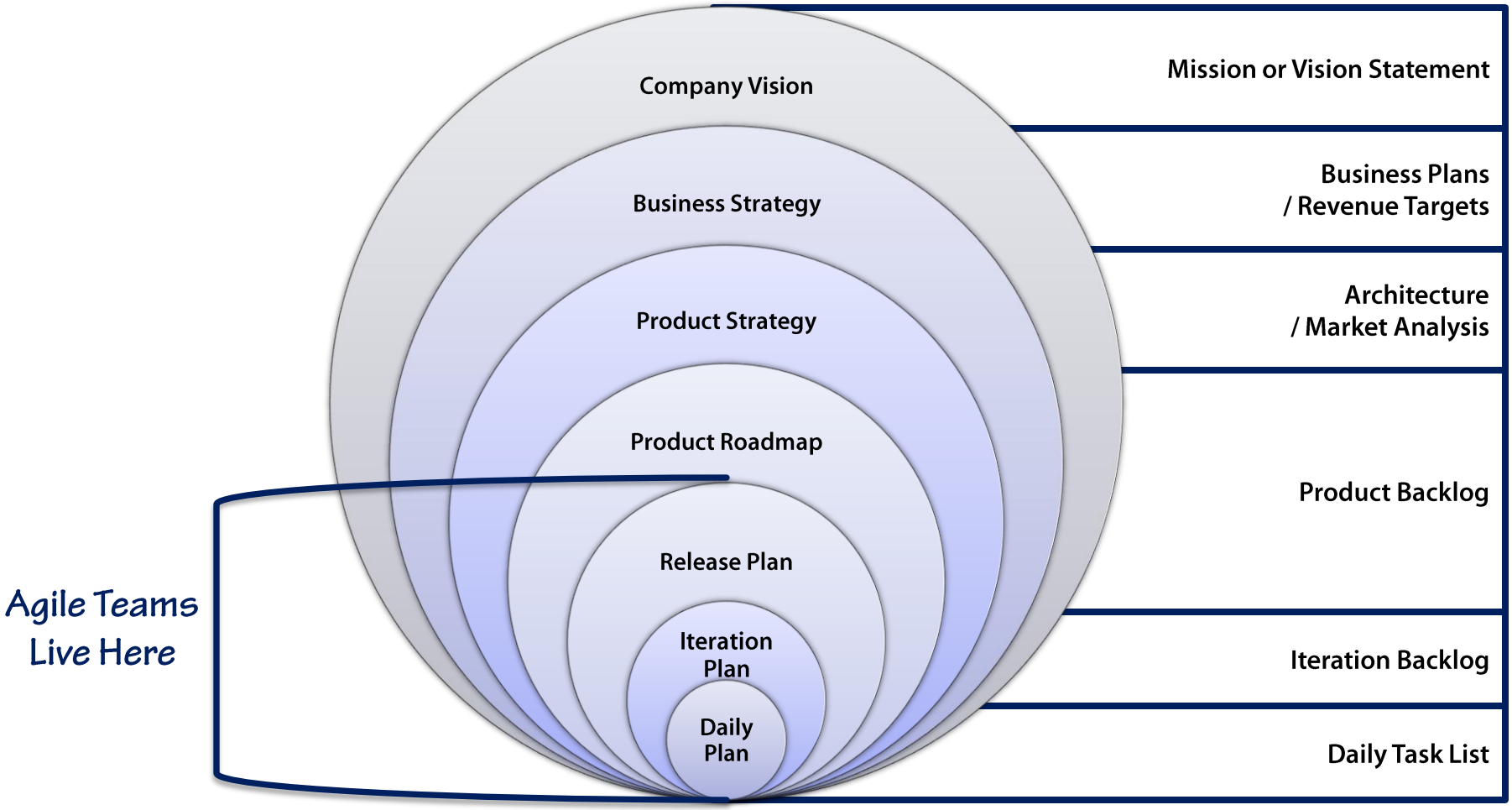
Frequency of Change



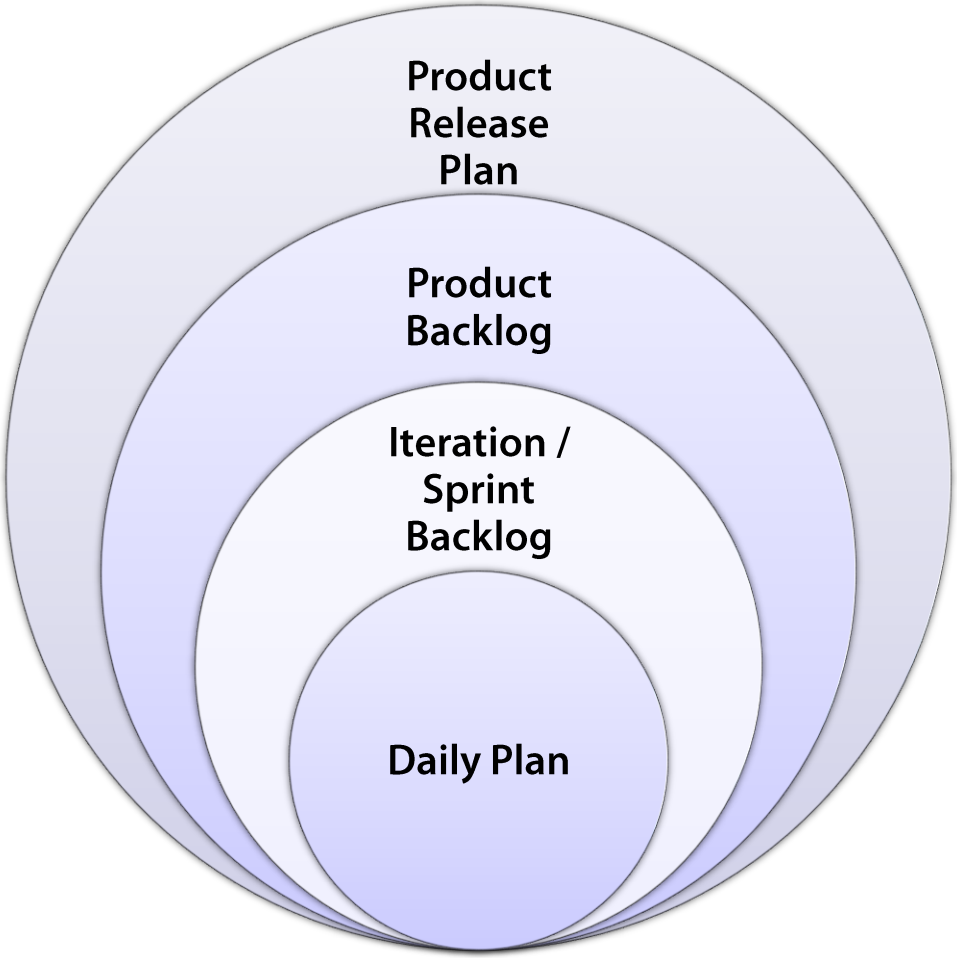
Levels of Accountability



Artifacts of Agile Planning



Our Focus


Product
Release
Plan
Product
Backlog
Iteration /
Sprint
Backlog
Daily Plan

Planning a Release

Actually shipping software

Product Roadmap vs. Release Plan

Product Roadmap	Product Release Plan
Communicate the big picture	Predicts to what extent we are poised to deliver on the Product Roadmap
Determine and communicate when releases are needed	Provides tangible targets of functionality and dates backed by the reality of the Product Backlog
Determine what functionality is sufficient for each release	Used to make reality-based decisions
Focus on business value derived from the releases	

A Typical Release Plan

V1, Q2 2009	V1.1, Q3 2009	V2, Q4 2009	V2.1, Q1 2010
Theme: Framework	Theme: UI Enhancements	Theme: Administration Tools Enhancements	Theme: New Browser Support
Feature A	Feature A.1	Feature C.1	Feature C.2
Feature B	Feature C	Feature D.1	Feature E
	Feature D	Feature F	Feature G
	Feature E		

2 Basic Types of Release Planning

Date Target Pla

The product wil

The Question

uch of the
g will be
by a given
te?

Feature Targ

The product wi

The Q

When will
A, B, and C
ready?

"We do both,"
is not realistic.

One or the other
will win in the end.

Rule #1

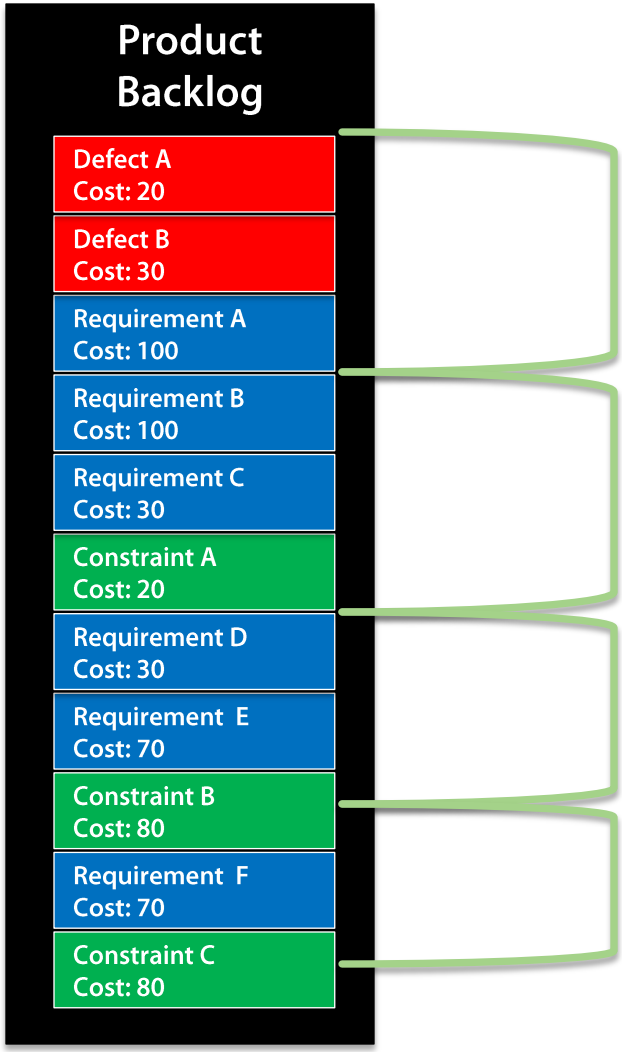
An accurate release plan requires a prioritized and estimated backlog

Rule #2

An accurate release plan

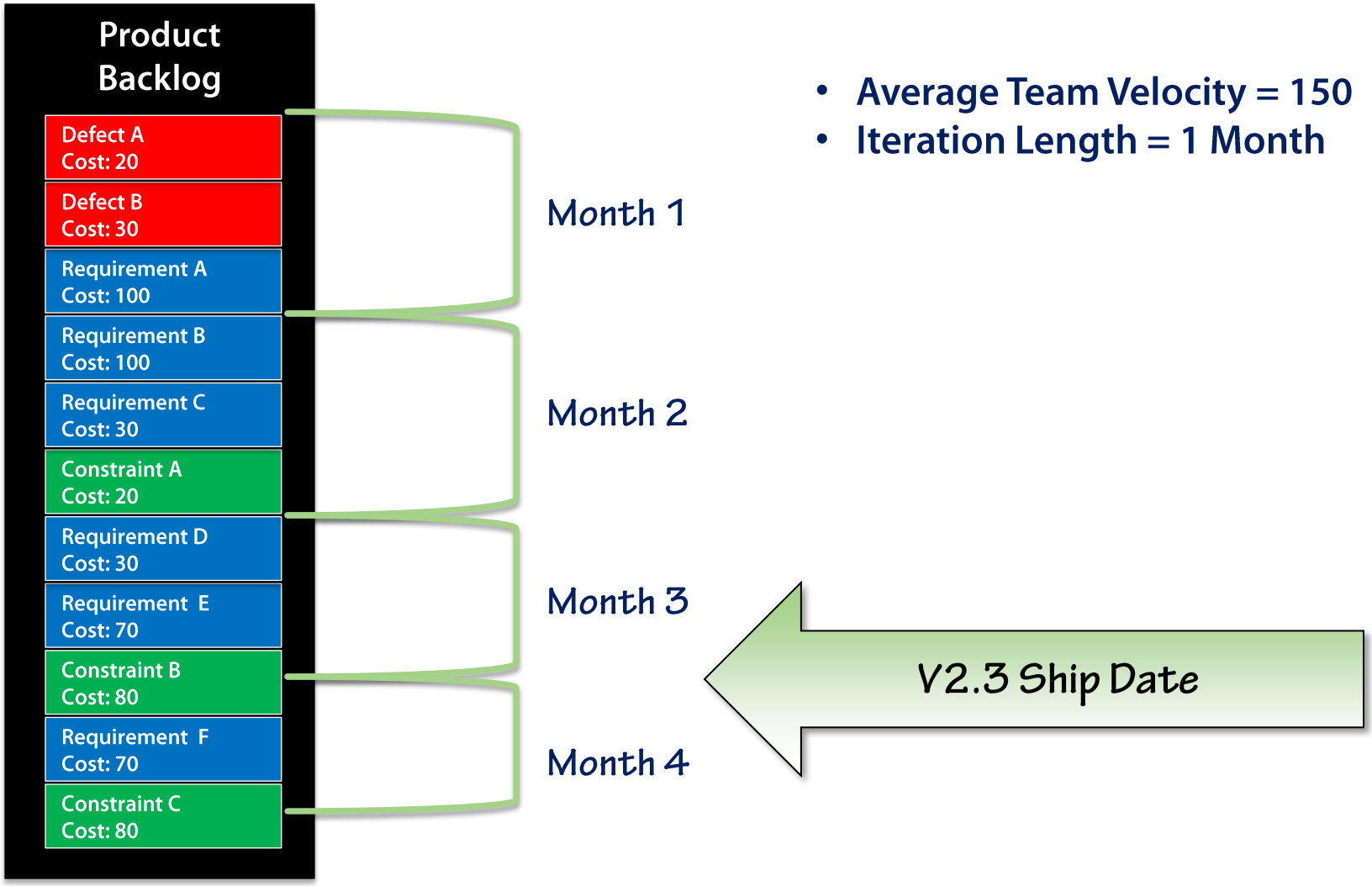
Requires known velocity

When Will Requirement F Likely Ship?



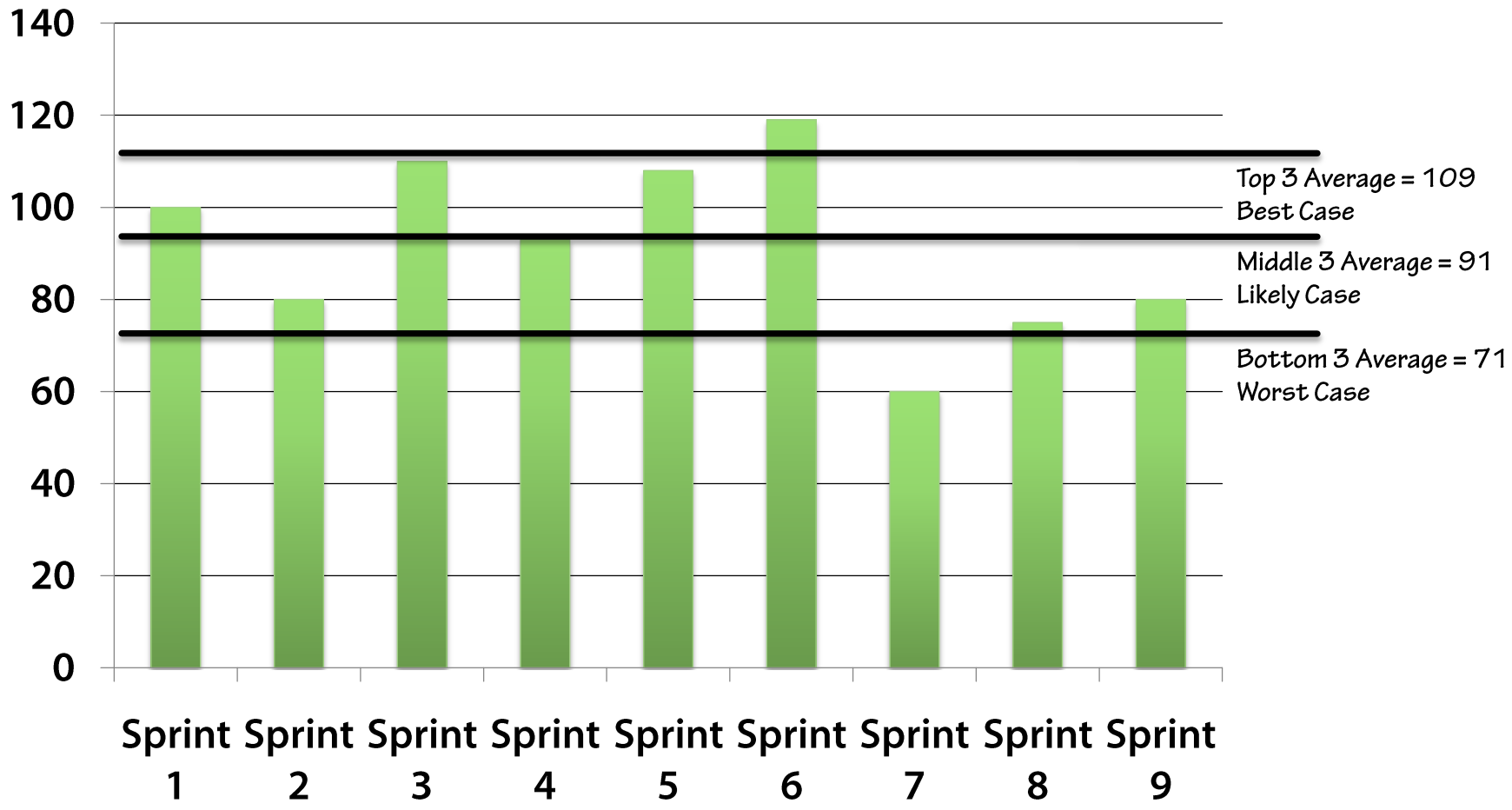
- Average Team Velocity = 150
- Iteration Length = 1 Month

What Will Ship In v2.3?

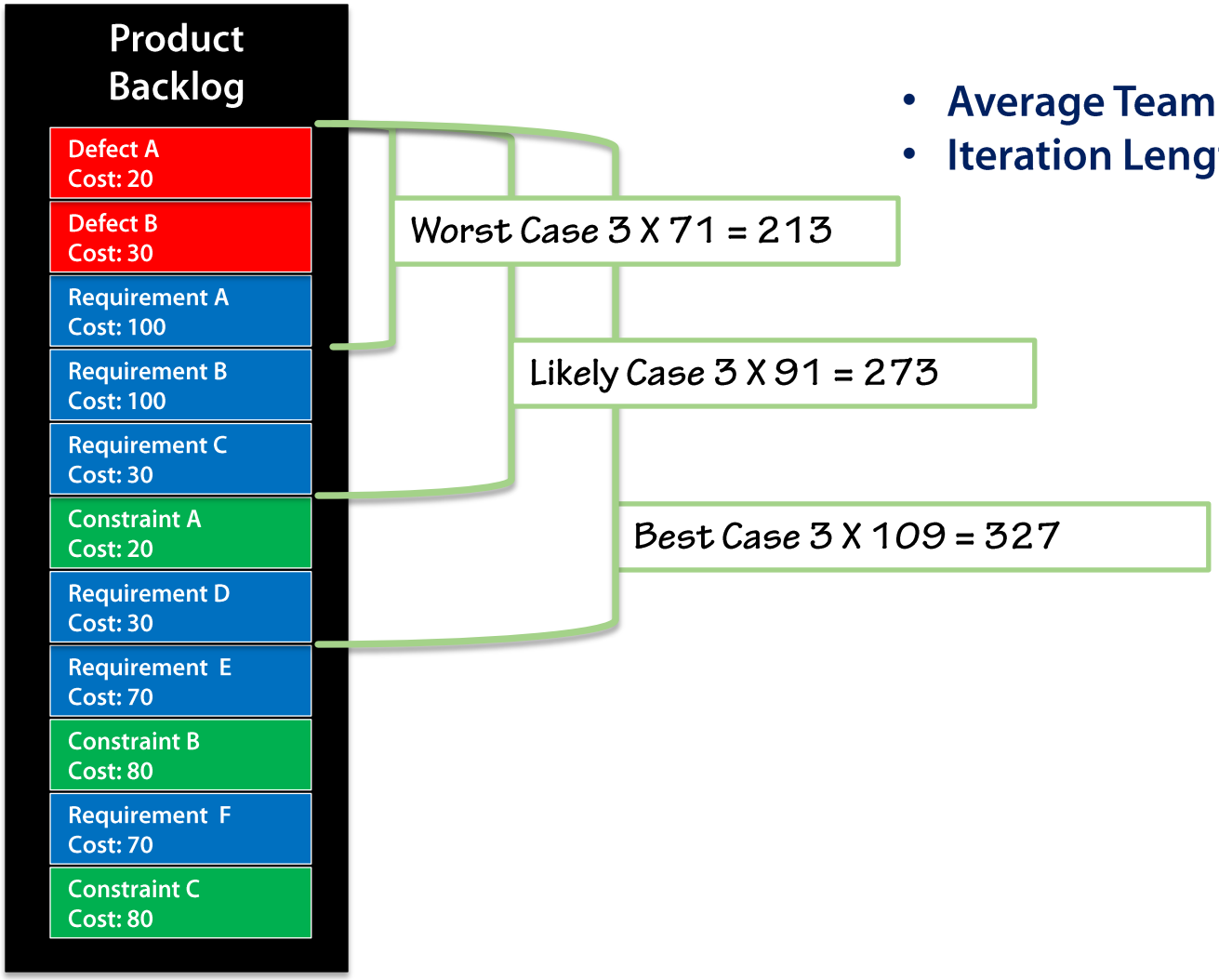


- Average Team Velocity = 150
- Iteration Length = 1 Month

Analyzing Velocity

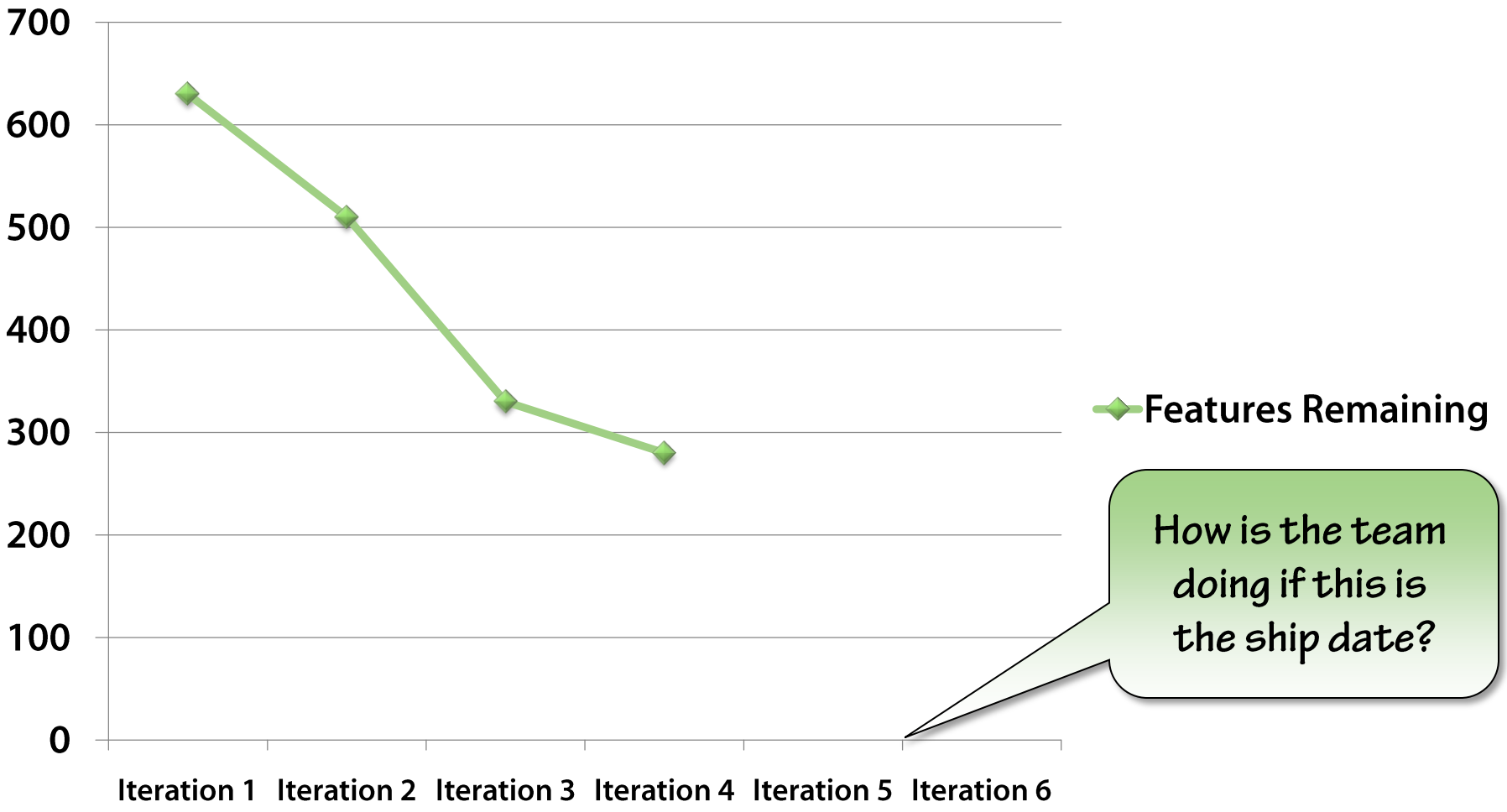


What Will Be Ready In 3 Months?



- Average Team Velocity = 150
- Iteration Length = 1 Month

Release Burndown Chart



"All you need is a product vision and enough top priority items on the backlog to begin one iteration…"

- Ken Schwaber in *Agile Software Development with Scrum*

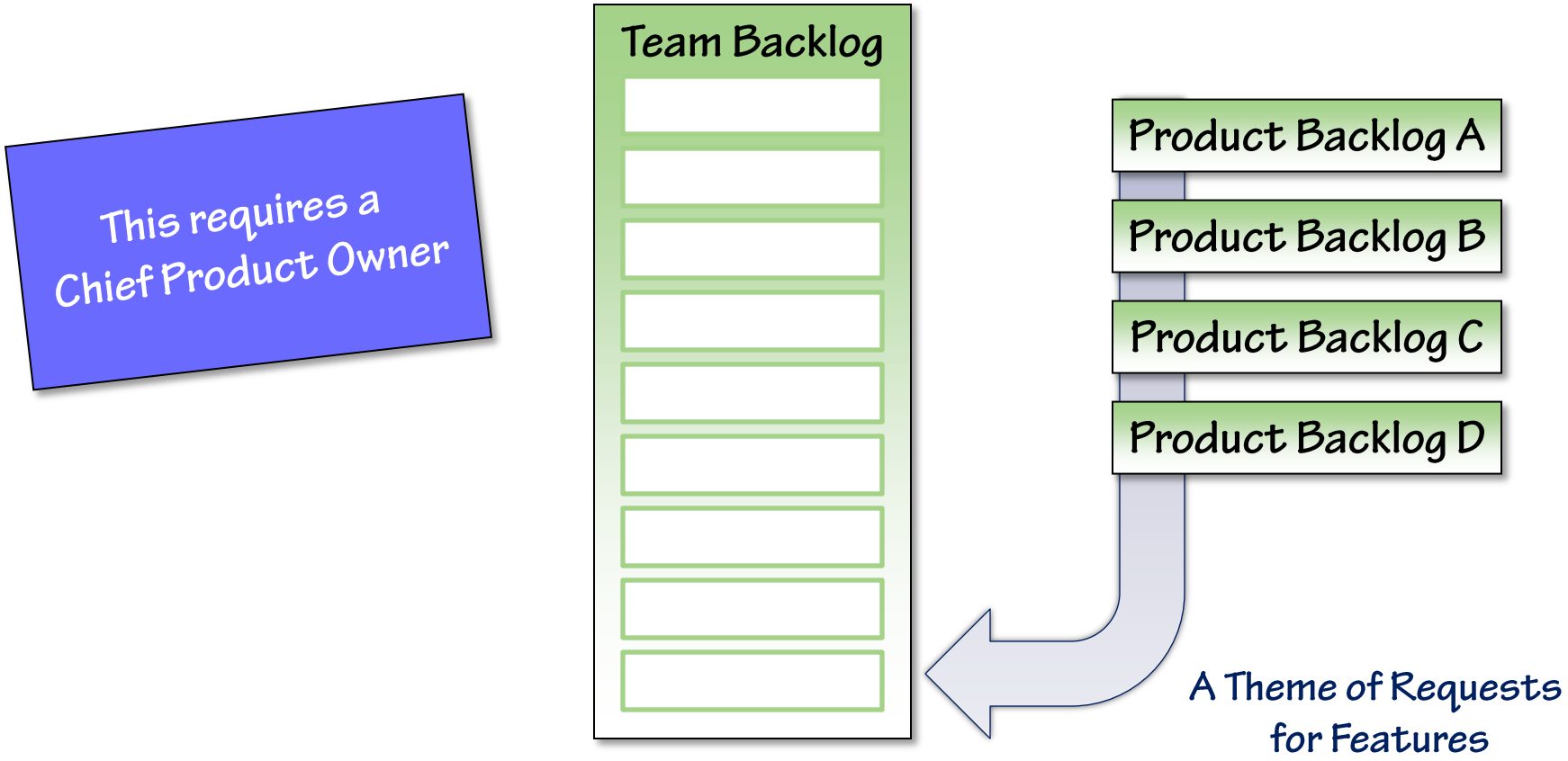
Techniques of Product Backlog Ownership

Making Informed Decisions

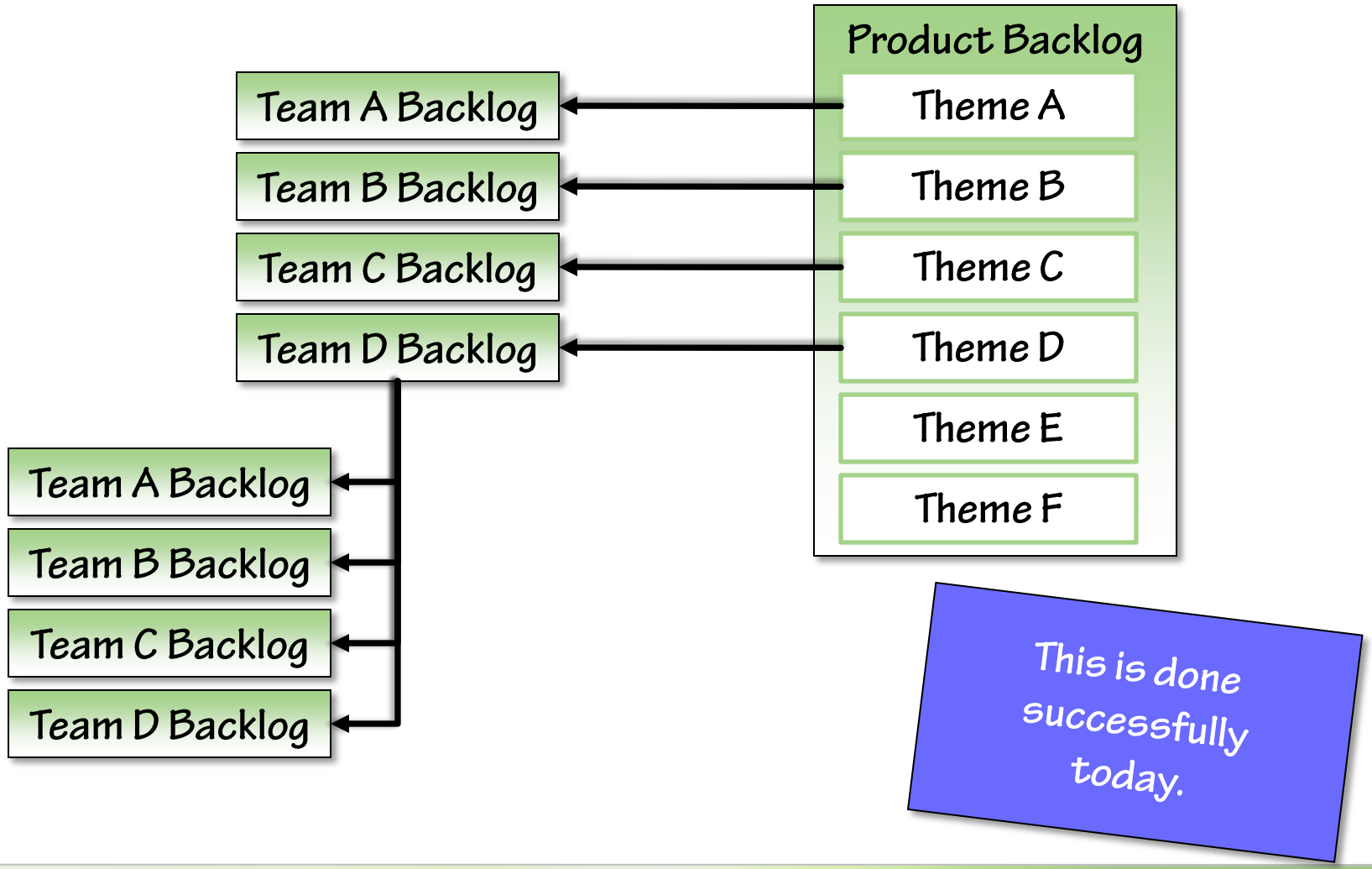
Many Products Sharing Themes

Themes	Products			
	MS Word	MS Excel	MS PowerPoint	MS Outlook
Smart Art				
Spell Checking	✔	✔	✔	
New Colors and Fonts	✔		✔	✔
Menu Ribbon Bars	✔		✔	✔
Flashy Animations	✔	✔	✔	✔
			✔	

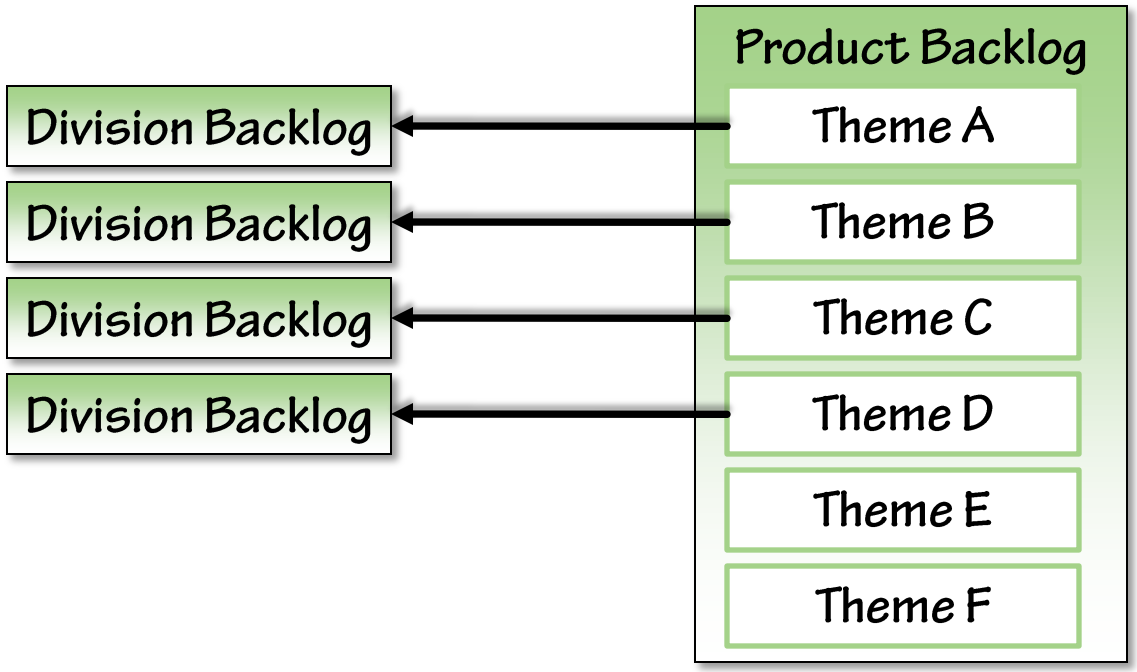
1 Team, Many Products



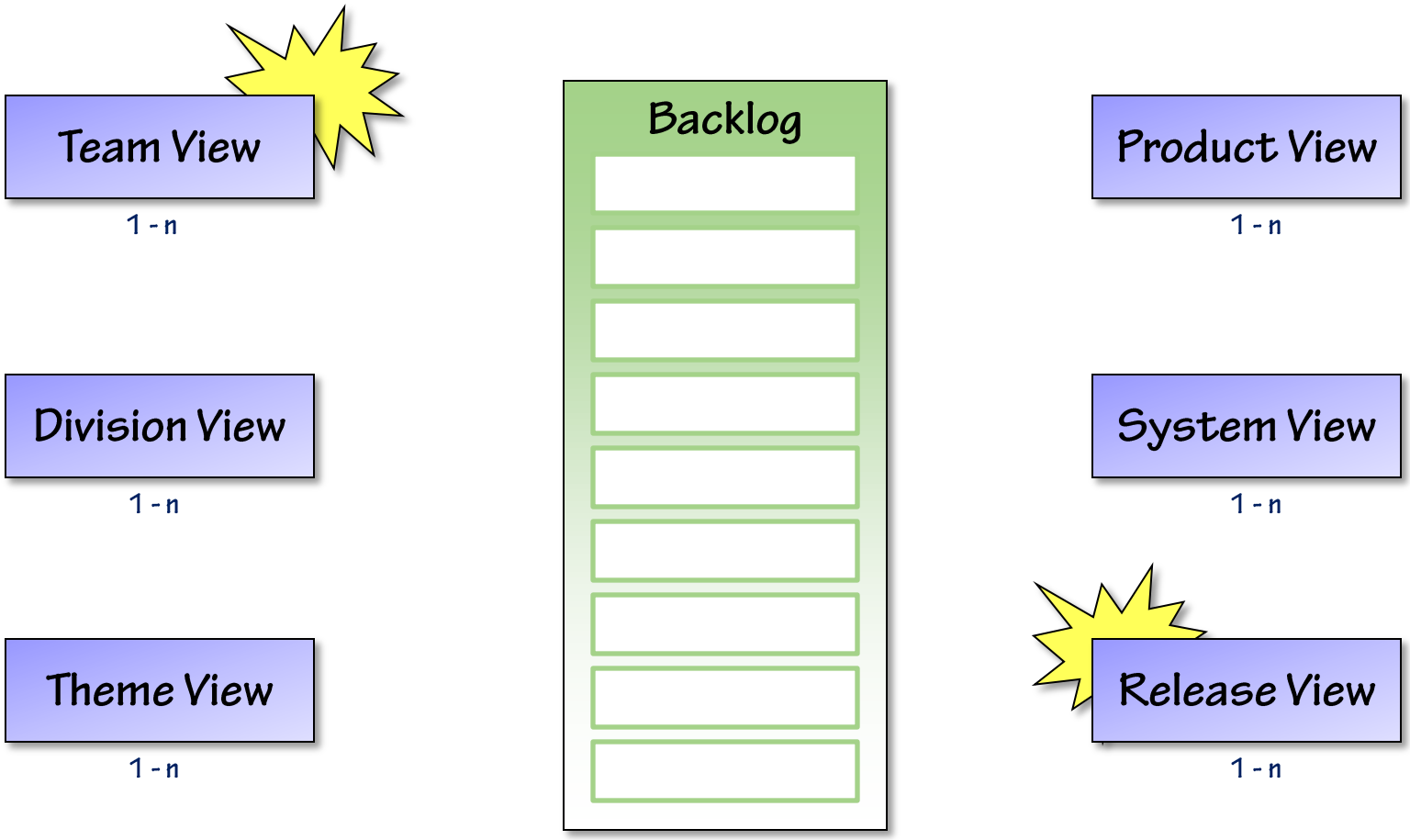
Many, Many Teams, One Huge Product



Many, Many Teams, One Huge Product



Which View of the Backlog is Real?



These View Are Special

Team Backlog View

- The team uses this to plan the next iteration of work
- If you are a theme owner and your work items aren't showing up in the Team View, you're in trouble

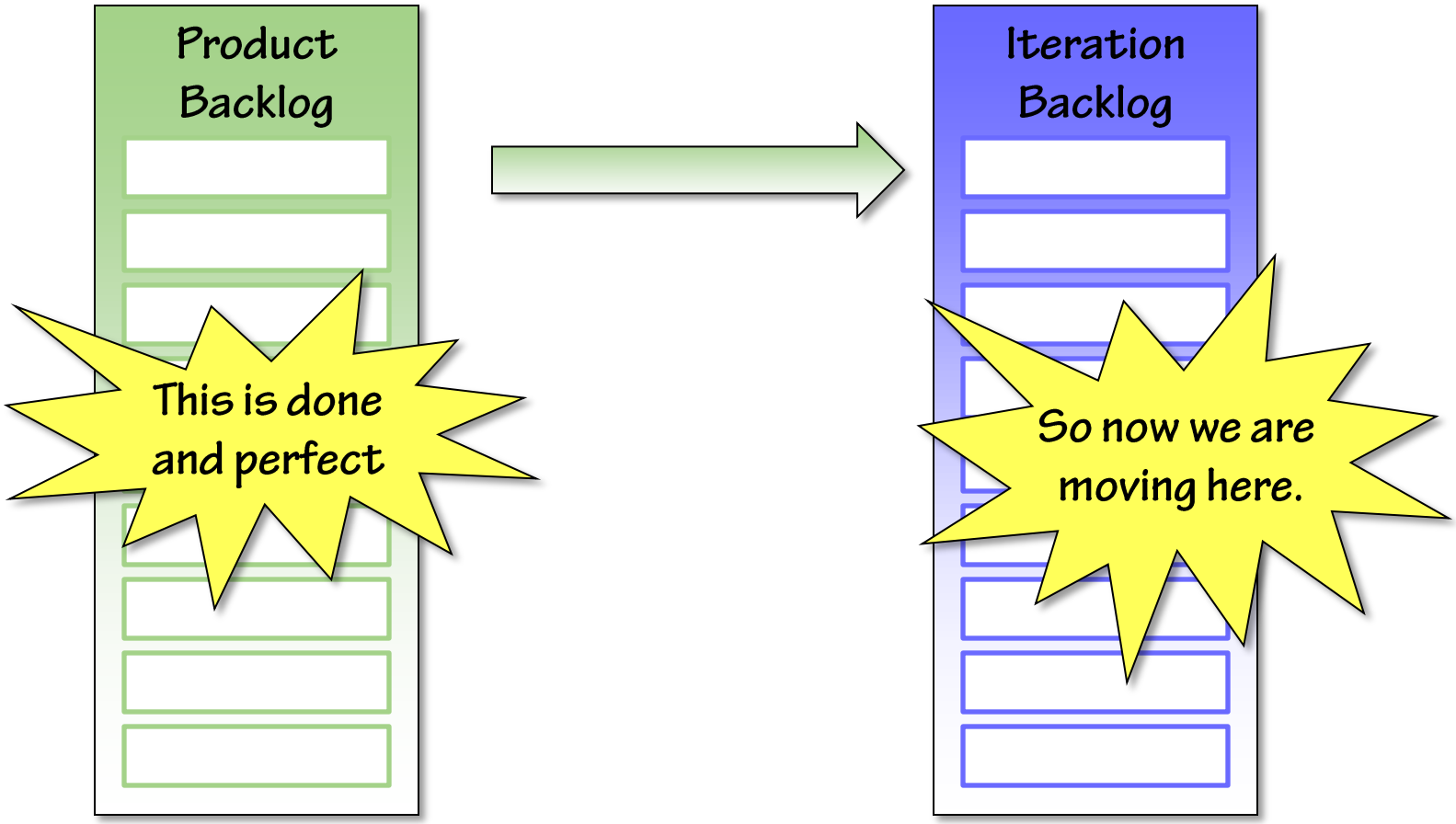
Release Backlog View

- The absolute reality of what clients will get in the next release

Techniques of Iteration Planning

Getting ready to go fast

Iteration Planning



Iteration Planning Meeting

- First day of new iteration
- Time boxed
- Everyone involved in the work is present
- The point is to plan the next iteration only

This is a pre-game meeting

- The goal is to make a TODO list for the upcoming iteration

Velocity vs. Commitment Based Planning

Velocity Based	Commitment Based
Uses average velocity over time or Uses velocity of last iteration	Team commits based on what they believe to be true right now
Most useful with long historical record	Likely to lead to realistic expectations
Unreliable in what we be accomplished	Uncovers future impediments now
Assumes conditions are constant across iterations	Forces team to be deliberate in their thinking

Commitment Based Iteration Planning

1. Discuss the highest priority item on the product backlog
2. Decompose it into tasks
3. Whole team estimates each task in ideal time
4. Team answers, “Can we commit to this?”
5. If yes, see if we can add another backlog item
6. If not, remove this item but see if we can add another smaller one

Ideal Time

- **How long something would take if**
  - it's all you worked on
  - you had no interruptions
  - everything you need is available

- **The ideal time of a football game is 60 minutes**
  - Four 15-minute quarters
  - The elapsed time is much longer (3+ hours?)

Task Decomposition

Product Backlog Items

As a hotel owner I want….	5
As a vacation planner I want…	8
As a traveler I want…	5
As a traveler I want…	13

Sprint Backlog Items

Code UI	3
Code Model	12
Test Model	4
Automate the build	2

Sprint Backlog Items

Install SQL Server	1
Code Model	16
Test Model	3
Schedule DB Backups	1

About Tasks

- The real work is the PBI
- Tasks don't typically need a lot of detail
- These items represent a conversation
- Simply meant to be a TODO item
- Keep it simple

The Daily Plan

Staying focused

The Daily [Scrum / Standup / Planning Session]

Why Do This?

- Sharing commitment
- Communicate daily and plans to the team and any observers
- Identify impediments
- Set direction and focus
- Regularly rallying the team builds a stronger team

A Daily Standup at Microsoft Patterns and Practices

Tips for Staying Effective

- Limit to 15 minutes
- Good stand-ups will feel supportive and respectful
- All team members participate, everyone is heard
- It's all pig, no chickens
- Everyone walks away with actionable commitments
- Co-locate the meeting with information radiators

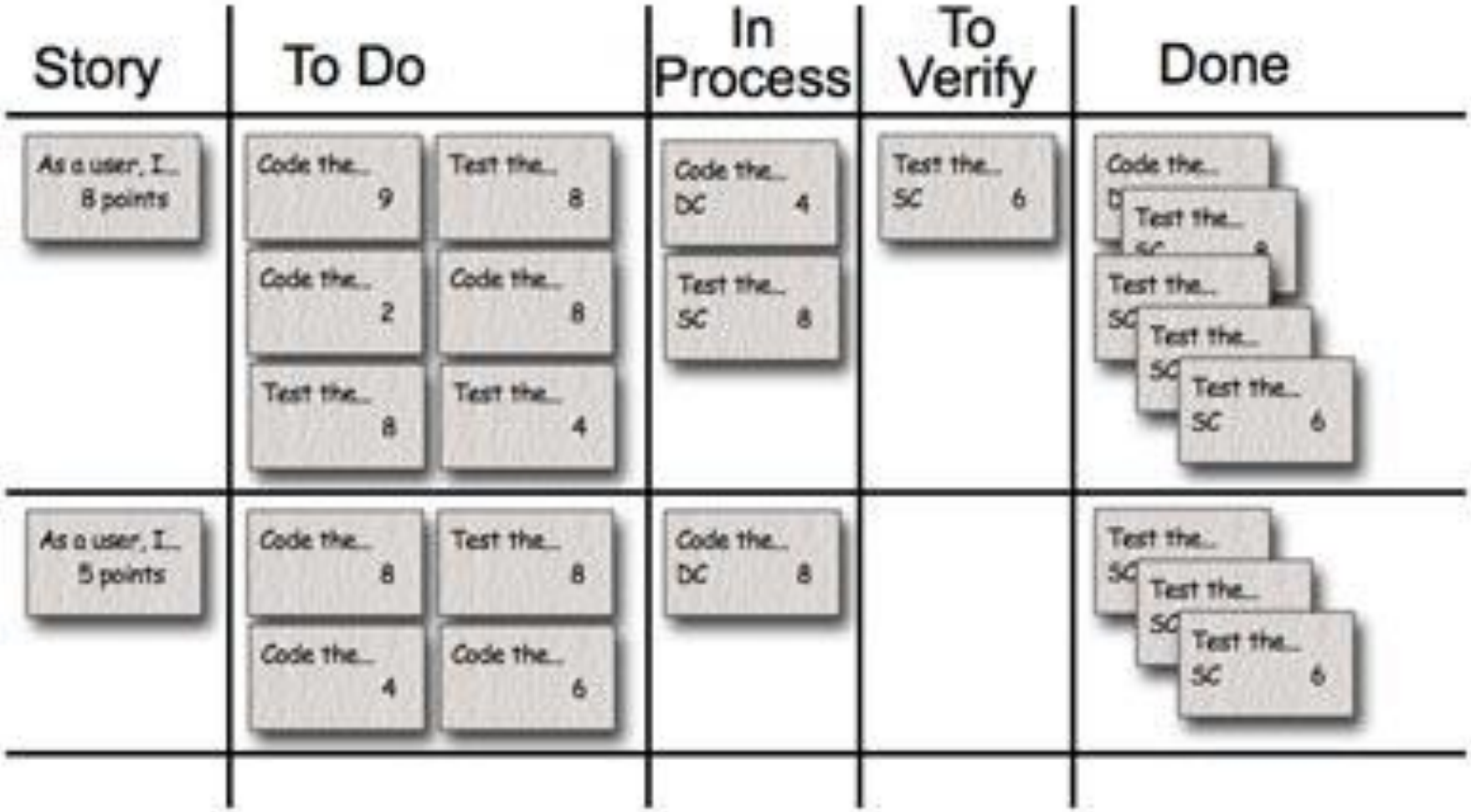
Information Radiators

- A large display of critical team information
- Continuously updated
- Located where the team can see it constantly

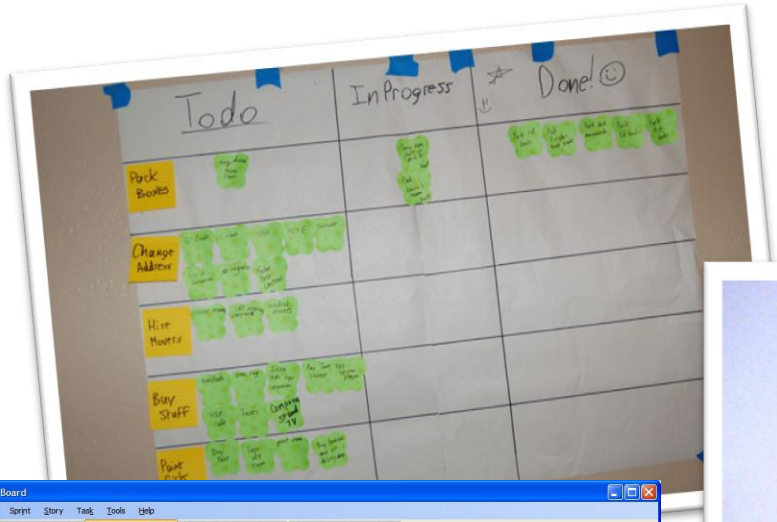
Perfect items for the Team Information Radiator

1. A task board
2. A Burndown Chart
3. Historical view of team velocity
4. Current build status
5. Number of current outstanding defects
6. Number of passing tests
7. Current code coverage
8. Release Plan

The Task Board



Typical Task Boards



Virtual SCRUM Board

File Edit View Sprint Story Task Tools Help

Planning | Current Sprint | Scrum Board | Sprint Burndown | Print Index Cards

3/3/2008 - 3/14/2008

Story	Not Started	In Progress	To Verify	Done
3 As a CFO, I would like to see a monthly sales trend. [JPN]	6 Test report view and printing 3 Update application documentation and rebuild help file	• Impeded 8 Modify UI to allow selection of new report		8 Understand the facilities of the existing query engine. [JPN] 4 Implement new report template [EB]
5 As an Accountant, I would like to create invoices for all outstanding charges for all customers	4 Write Unit Tests to check data selection criteria 8 Implement UI 8 Implement and run Functional Tests 6 Update documentation	12 Write code to select appropriate data for invoicing 2 Wireframe UI for the Invoice Run	4 Design Invoice template	0 Research reporting engines 0 Review the viable choices for Reporting Engines with the team for input 0 Learn API of the reporting engine

C:\Dev\Code\VirtualScrumBoard\VSBDemoData\VSBData 7 | Valued Customer (Single-User License) | admin

More Tips to Stay Effective

- **Focus on the backlog**
- **Create a parking lot for following up later**
  - Problem solving
  - Story telling
  - Impediments
- **Signal the end**
- **Time the meeting**

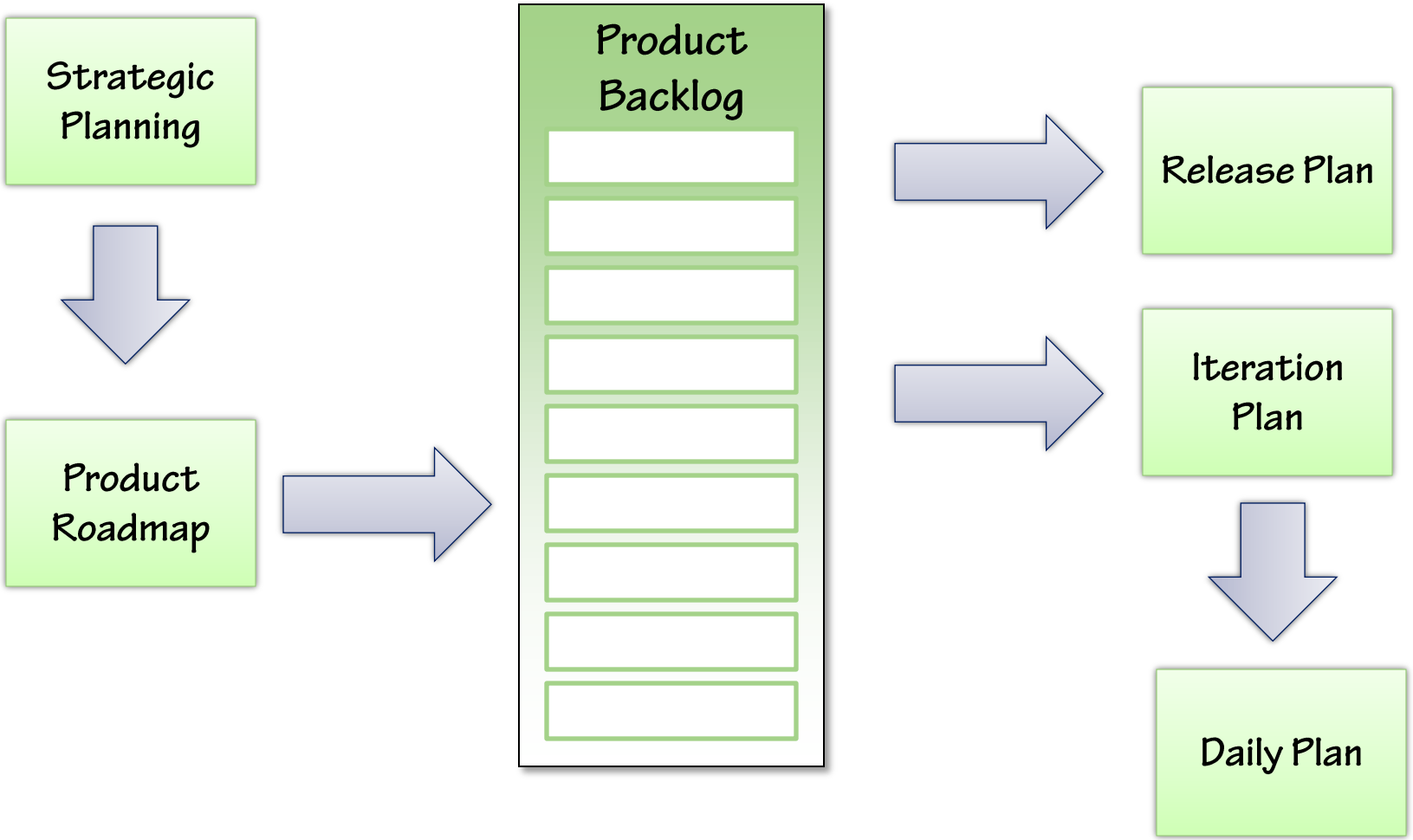
Keeping It Fun and Interesting

- Last person to arrive starts the meeting
- Bring food
- Fine latecomers - The money is spent on the ship party
- Create a “Standup Duration Chart”
- Changing up the order
  - Draw cards
  - Round robin
  - Pass the token

Daily Standup Smells

- Starting late
- Missing pigs
- The meeting overlord
- Squawking chickens
- Socializing
- Gloom and doom
- Impediments aren't raised
- Impediments aren't resolved
- The story teller

Summary


Strategic Planning
Product Roadmap
Product Backlog
Release Plan
Iteration Plan
Daily Plan

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- **It's Not Just Standing Up: Patterns of Daily Stand-up Meetings**
  http://martinfowler.com/articles/itsNotJustStandingUp.html