

# PSPO

Professional Scrum  
PRODUCT OWNER



# Scrum.org Mission



*Improving the Profession of  
Software Delivery*

A black and white photograph showing four people in a modern office setting. A man in a suit is seated on the left, looking towards a woman in a patterned blouse who is holding a small white object. In the center, another man in a button-down shirt is leaning forward, also looking at the object. To his right, a woman in a dark top is standing and gesturing with her hands as if speaking. The room has large windows in the background.

*"If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it."*

- Steve Jobs

# Introductions

# Why Are You in This Class?

- Introduce yourself
- Have you used Scrum before?
- Are you a Product Owner?
- Your professional background:
  - Development?
  - IT?
  - Other?





Develop guidelines for how to work together during this class.

How will the class deal with:

- Off-track discussions
- Lunch
- Break times and signals
- Electronics such as phones, tablets, and laptops
- End of day timing

This course is collaborative.  
Talk to me, talk to each other.

# Timeboxing



After any breaks we  
will start on time.

# Right to Pass

You have the right to pass in any activity or exercise we do.





# TFTBOFTR

Training from the back  
of the room aims to  
maximize your  
retention

# Stand Up



Standing up provides  
10% more oxygen to  
your brain.

# Take Care



Take care of your own needs. You don't need to ask for permission.

# Cellphones

Phones on silent  
please. If you need  
to take a call, leave  
the room.



# Parking Lot



Put topics we don't have time to cover on the parking lot to review later.

# Feedback Door

Give us  
feedback every  
time you leave  
the room.



# Failure Bow



When you fail.  
Admit it.  
Take a bow. Receive  
applause :)



# Toys

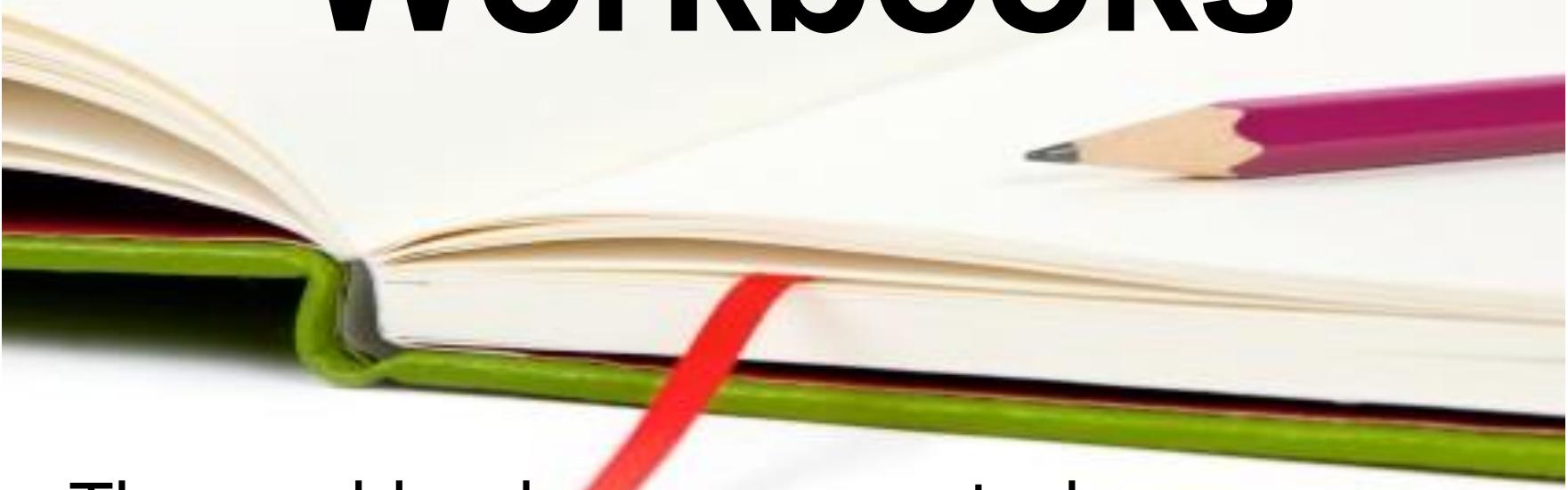
Table toys are for fiddling. They help kinesthetic learning.

# Photos

We will provide photos of all flip charts after the course.



# Workbooks



The workbooks are yours to keep.  
Please take notes and doodle.

# Hands Up

Put up your hand and be quiet when you are ready to move on.



# Off Track



Wave both  
hands if  
someone is  
going off topic.

# Agenda

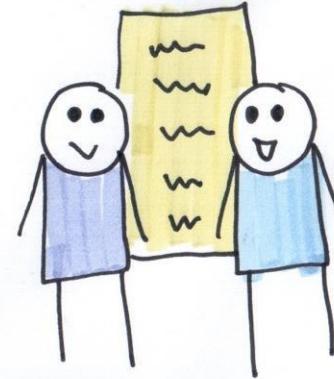
- Agile Product Management
- Value-Driven Development
- Scrum Theory & Empiricism
- The Scrum Framework
- Product Backlog Management
- Release Planning

With joyful exercises along the way!

# Who is in the room?

Find a partner (someone you  
don't know) ↗

Fill in the posters  
around the room.



create a card  
for your  
neighbour

- name
- role at work
- super power
- favourite sport
- 1 interesting fact

Karen



Boss!

organisational master

xbox (< not a sport)

can touch her nose  
with her tongue :)



## Team Start-Up

10  
minutes

Make roughly even-sized, multi-disciplinary teams of 5 members or less.

Organize your working environment.

### Post for all to see:

- The purpose of a Product Owner
- 3 things you want to learn in this class

Stand if you have heard of the  
Agile Manifesto?

# AGILE MANIFESTO

**individuals & interactions**

over

processes & tools

**working software**

over

comprehensive documentation

**customer collaboration**

over

contract negotiation

**responding to change**

over

following a plan

# what is agile?

AGILE

XP

SCRUM

KANBAN

frameworks

TDD

Refactoring

BDD

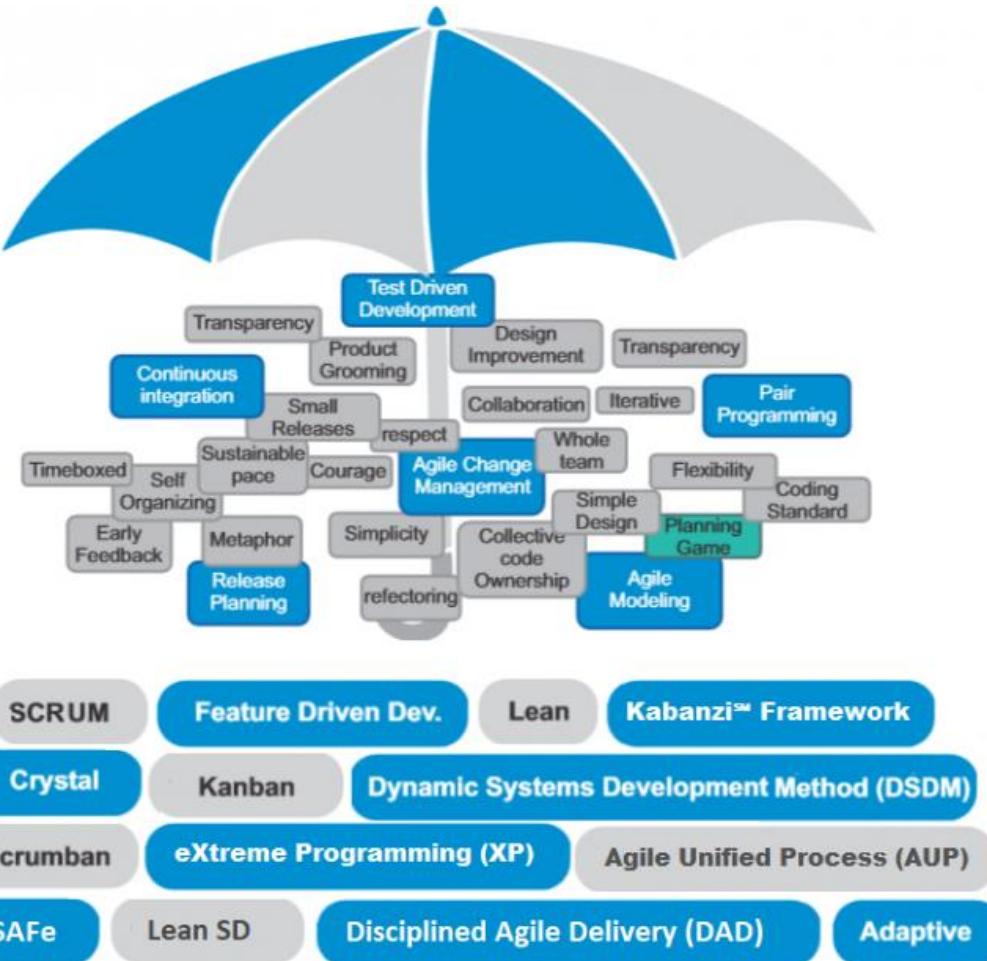
Story  
Points

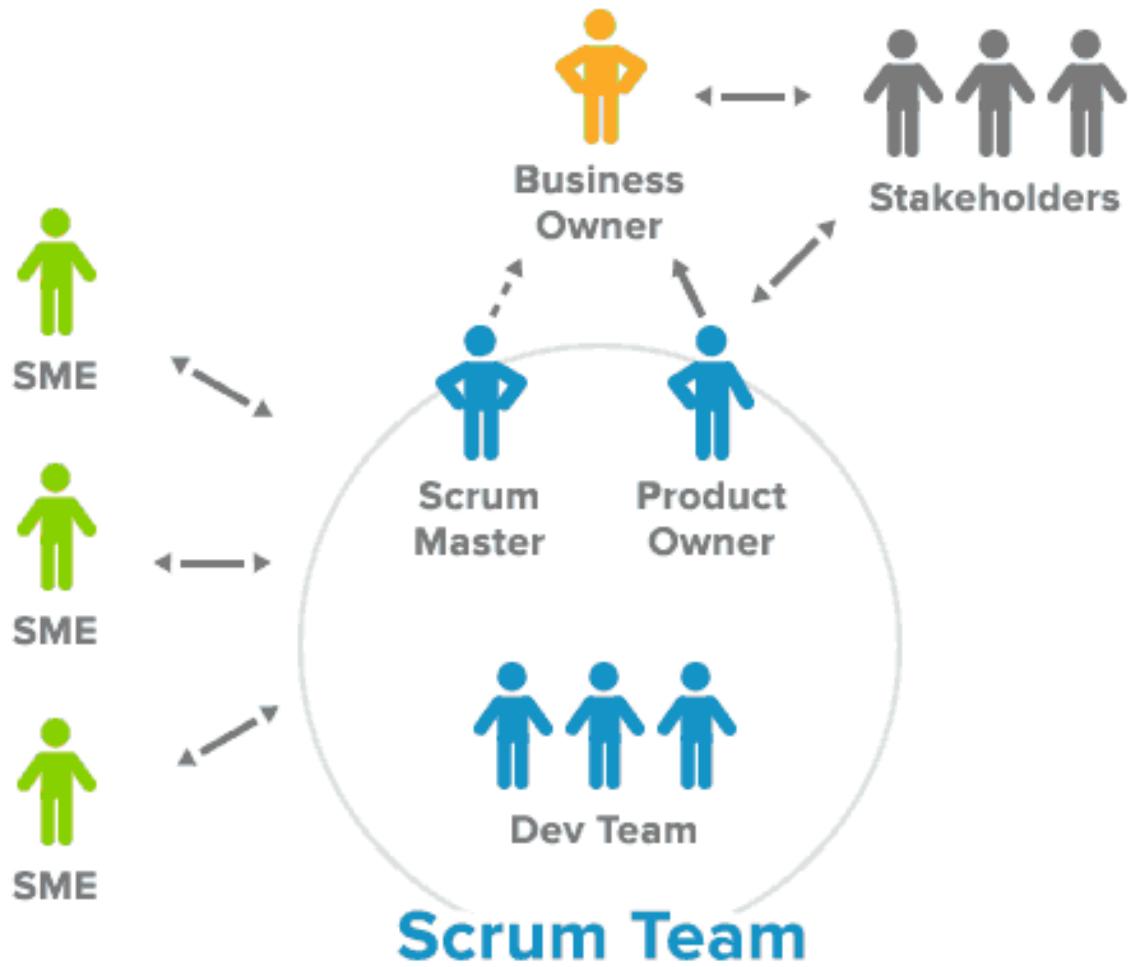
User  
Stories

Pairing

ATDD

practices





# Professional Scrum at Scrum.org

[www.scrum.org/courses](http://www.scrum.org/courses)



Everyone!



Scrum Masters · Managers ·  
Scrum Team Members



Experienced Scrum Masters



Product Owners · Product Managers ·  
Advanced Practitioners



All members of a Scrum Team including:  
Developers · Scrum Masters · Product  
Owners · Analysts · Testers ...



Development Leads and Managers ·  
Scrum Masters · Project Managers ·  
Advanced Practitioners



Managers · Leaders · Product Owners ·  
Scrum Masters



All members of a Scrum Team including:  
Development Team Members · Scrum  
Masters · Product Owners

# Professional Scrum Product Owner Course

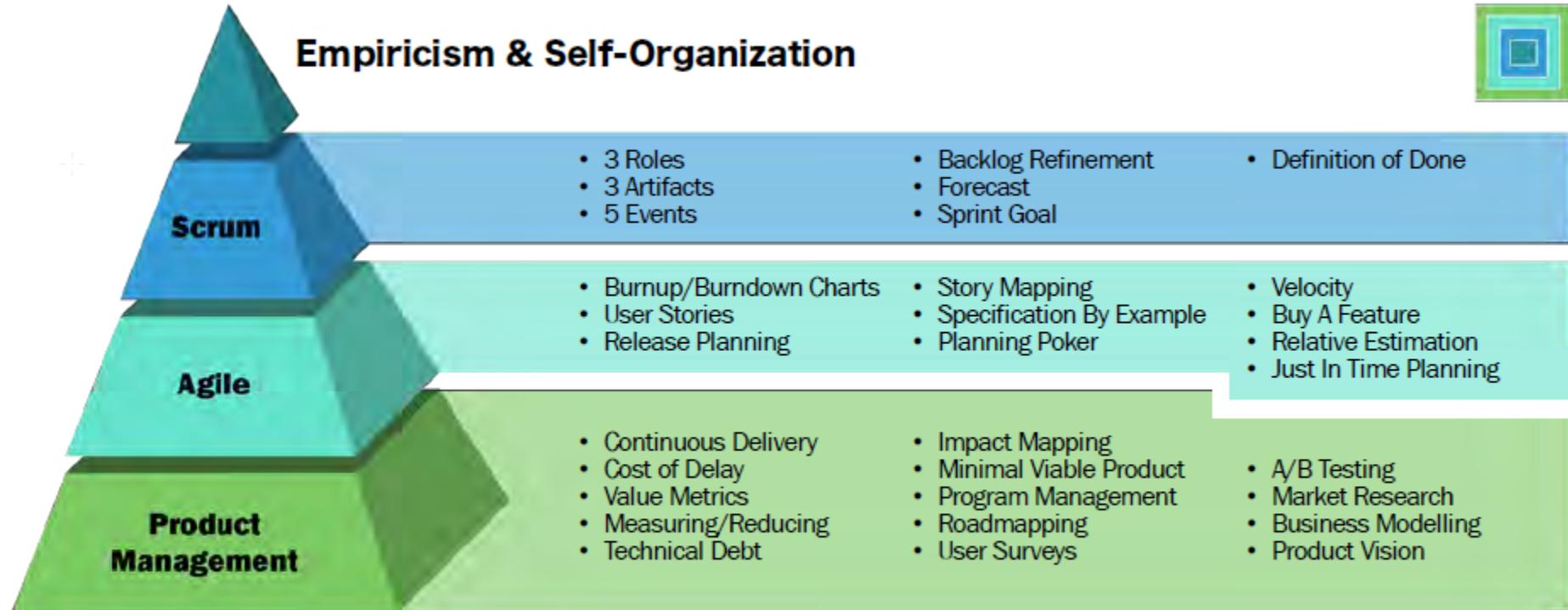
## PURPOSE

- Teaches how to wring more value out of a product using agile software development with the Scrum framework.
- Understand the application of Scrum theory and principles to improve product management.

## AUDIENCE

- For those responsible for the success of a software product or service by optimizing its value.
- *Ideally, attendees have passed the Professional Scrum Open and the Product Owner Open assessments.*

# Scrum Is Complemented by Many Practices



*... and many, many more.*



*"Someone's sitting in the shade today because someone planted a tree a long time ago."*

- Warren Buffett

# Agile Product Management

## Thoughts on These Companies?





## A stable backbone

### Structure:

"Primary home" for coaching and training

### Governance:

Transparency of "who" and "how" in decision making, resource allocation, and performance oversight

### Process:

Standard language and shared performance metrics across teams

## Dynamic "apps"



### Team changer

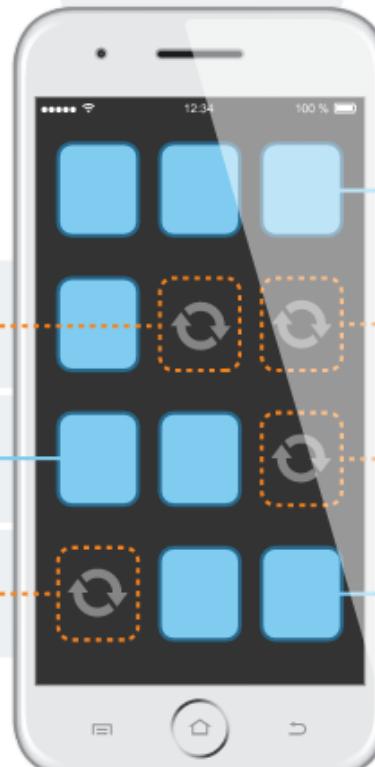
Set up, dissolve, and re-form teams

### Peer review

Offer quick feedback to a colleague

### Team targets

Set and reset metrics and targets at regular intervals—eg, milestones



### Resource allocator

Assign people and money to project teams

### Process builder

Quickly preview standard setup and processes, and stack in modular way

### Decision convener

Convene cross-functional leaders to debate decisions

### Decision delegator

Delegate decisions in real time to those close to the day-to-day action

## Purpose Helps in Pursuing Agility

A grayscale photograph of a person wearing a surgical mask and glasses, looking down at a tablet device they are holding. The image is partially visible on the left side of the slide.

Why is agility important to  
*your organization?*

2

minutes

# Reasons to Pursue Agility

Improved relationship with customers, regaining trust

Flexibility to turn on a dime

Improved productivity and quality

Taking advantage of opportunities

Early elimination of risk

Early realization of value

Always knowing where you are in a development/deployment cycle

Easier to make changes

Elimination of waste

Lean products that reach market faster and are more targeted

Increased Return on Investment

Engaged, empowered workers

Reduced Total Cost of Ownership

## Project vs Product

2

minutes

Is it possible to deliver on time, under budget, and within scope yet still be unsuccessful?

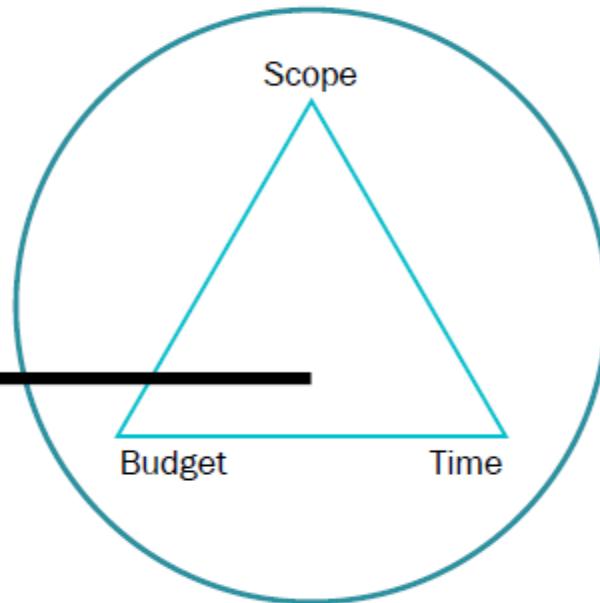
# Agile Product Managers Have a Product Mindset

## Project Mindset

Success *upfront* defined inside out:

- Scope
- Time
- Budget

Leads to less business involvement, more task management.



## Product Mindset

Success *continuously* driven by business metrics outside in:

- User adoption/retention
- Revenue
- Cost savings per feature

Leads to less waste, more creativity, and more releases.

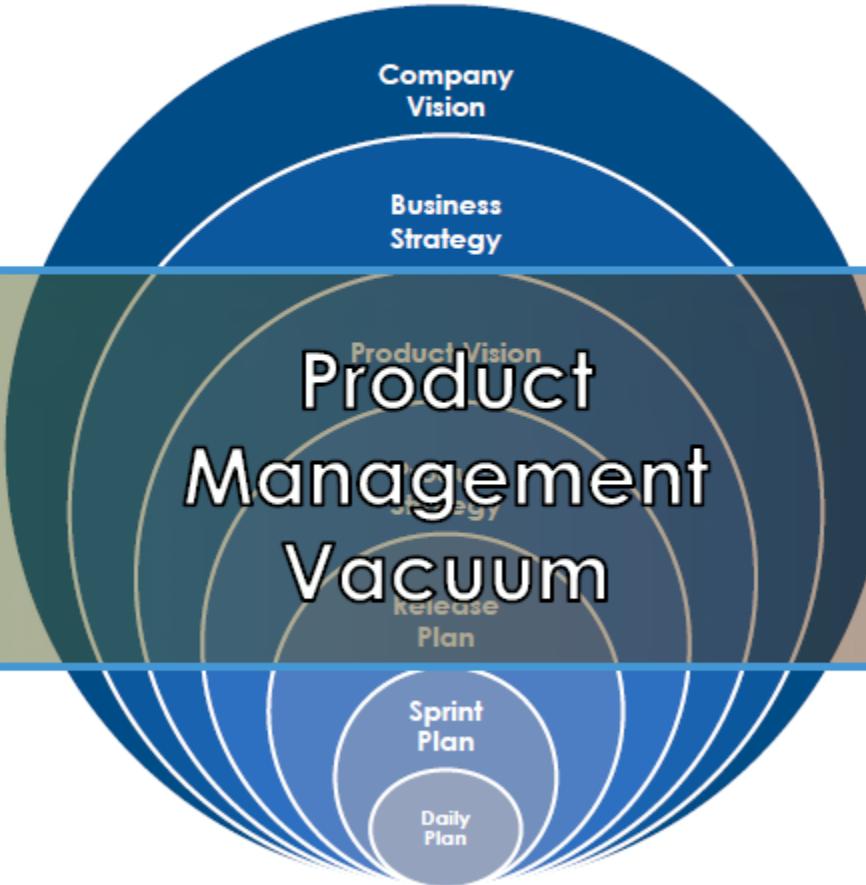
# The Bigger Picture

Focus on...

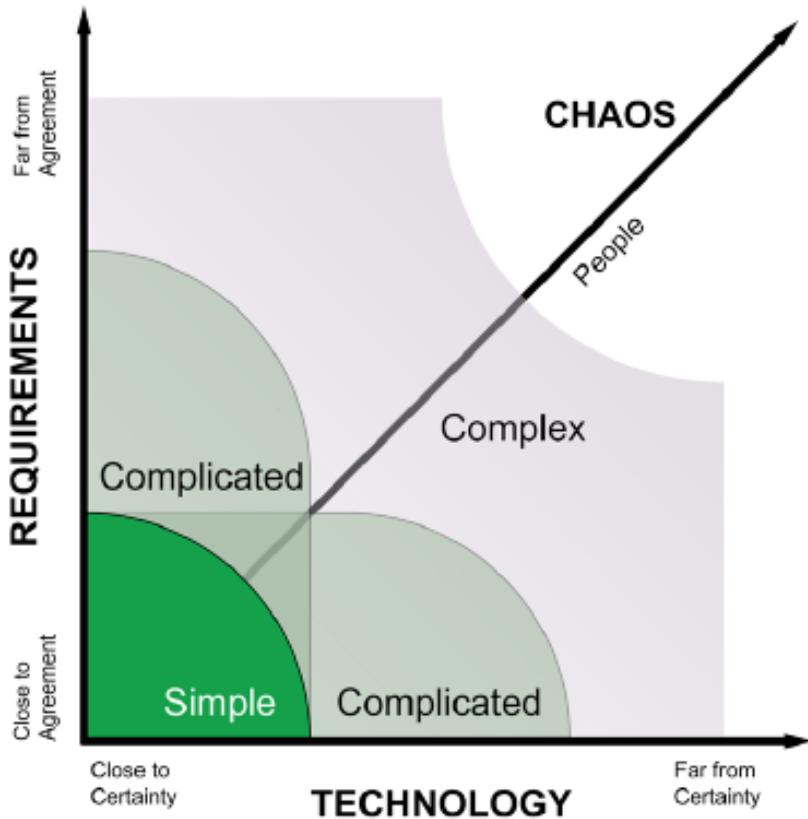
Vision  
Value  
Validation

Versus...

Project Charters  
Project Plans  
(time, budget, scope)  
Milestones



# The Complexity Of Software Development



Simple

Everything is known

Complicated

More is known than unknown

Complex

More is unknown than known

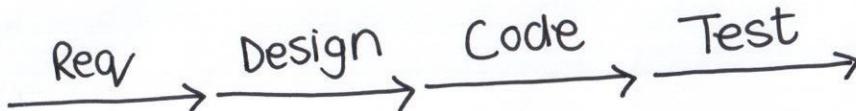
Chaotic

Very little is known

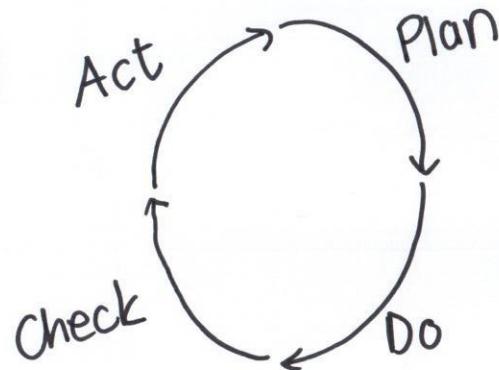
Source: Ralph Stacey, University of Hertfordshire

# Process Models

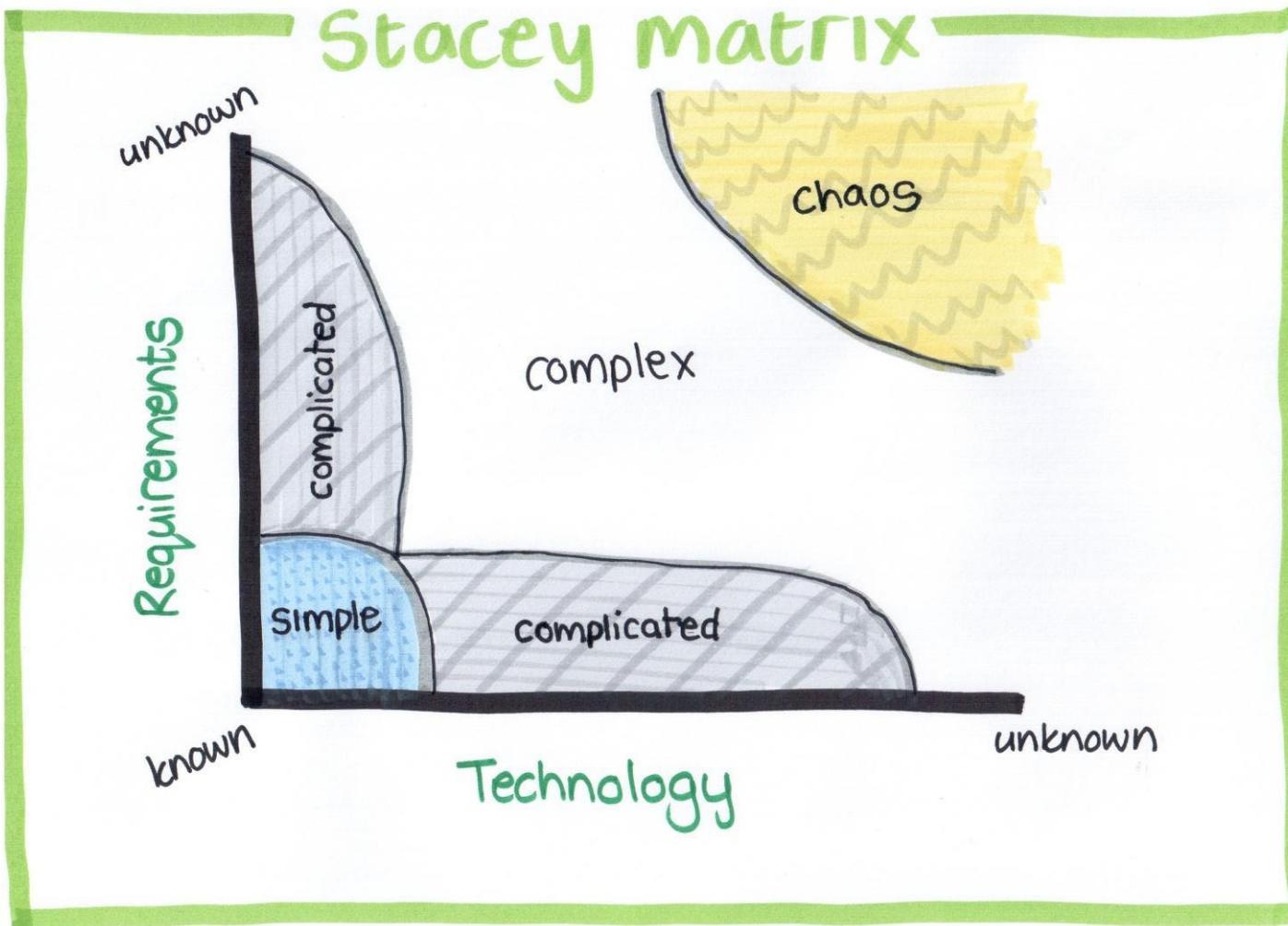
Defined



Empirical



# Stacey Matrix



1. Form pairs, where one person is the boss, the other is the worker.
  - The boss may only say: Go, Stop, Right, Left, Faster, Slower
  - The worker must follow the boss's commands
2. Bosses must get workers to take 60 steps in 2 minutes
3. The boss can command, but not touch, the worker
4. Do not leave the defined space
5. Walking in place is not a step

Same rules as before, except everyone is a worker responsible for choosing how to proceed by him or herself.

1. Stay within boundaries, no touching, talk as much as you want.
2. Proceed 60 normal paces within two minutes.
3. Stop where you are when you get to 60 paces.

# Relating Complexity To Management Style

Project Type	Characteristics	Leader's Job
Chaotic	High Turbulence No clear cause-and-effect Unknownables Many decisions and no time	Immediate action to re-establish order Prioritize and select actionable work Look for what works rather than perfection Act, sense, respond
Complex	More unpredictability than predictability Emergent answers Many competing ideas	Create bounded environments for action Increase levels of interaction and communication Servant leadership Generate ideas Probe, sense, respond
Complicated	More predictability than unpredictability Fact-based management Experts work out wrinkles	Utilize experts to gain insights Use metrics to gain control Sense, analyze, respond Command and control
Simple	Repeating patterns and consistent events Clear cause-and-effect Well establish knowns Fact based management	Use best practices Extensive communication not necessary Establish patterns and optimize to them Command and control

# Complexity Calls For The Right Management Style

Project Type	Characteristics	Leader's Job
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# Situation Dictates The Type Of Process

## Predictive

- Work and outcomes are understood before execution
- Given a well-defined set of inputs, the same outputs are generated every time
- Follow the pre-determined steps to get known results

Examples: Assembly line, construction, accounting

## Empirical

- Frequent inspection and adaptation occurs as work proceeds
- Processes are accepted as imperfectly defined
- Outputs are often unpredictable and unrepeatable

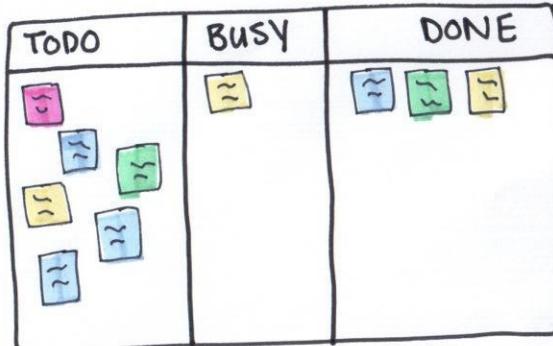
Examples: Sales, marketing, theater, creative writing

# Empirical Processes Require Courage



# QUESTION BACK LOG

- write up your questions
- 1 per post-it
- prioritize at your table
- create a taskboard
- update throughout course  
(we will give you time)



# VALUES

- courage
- openness
- respect
- focus
- commitment



# PRINCIPLES

→ prioritisation

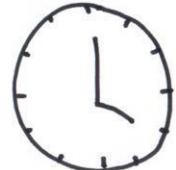
→ self-organisation

→ empiricism

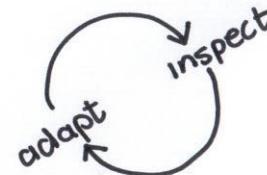
→ emergence

→ collaboration

→ time-boxing



$$|+|=3$$



- **Empirical Process Control**—This principle emphasizes the core philosophy of Scrum based on the three main ideas of transparency, inspection, and adaptation.
- **Self-organization**—This principle focuses on today's workers, who deliver significantly greater value when self-organized and this results in better team buy-in and shared ownership; and an innovative and creative environment which is more conducive for growth.
- **Collaboration**—This principle focuses on the three core dimensions related to collaborative work: awareness, articulation, and appropriation. It also advocates project management as a shared value-creation process with teams working and interacting together to deliver the greatest value.
- **Value-based Prioritization**—This principle highlights the focus of Scrum to deliver maximum business value, from early in the project and continuing throughout.
- **Time-boxing**—This principle describes how time is considered a limiting constraint in Scrum, and used to help effectively manage project planning and execution. Time-boxed elements in Scrum include Sprints, Daily Standup Meetings, Sprint Planning Meetings, and Sprint Review Meetings.
- **Iterative Development**—This principle defines iterative development and emphasizes how to better manage changes and build products that satisfy customer needs. It also delineates the Product Owner's and organization's responsibilities related to iterative development.

## Product Manager Responsibilities

A black and white photograph of a man with glasses and a suit, looking down at a laptop screen. He appears to be in a professional setting, possibly an office. The image is partially visible on the left side of the slide.

Come up with a list of activities that are (should be) part of Product Management.

5

minutes



# Product Management Encapsulates Many Things

Analyzing the Industry & Competition

Product Strategy

Maximizing Revenues & ROI

Release Planning

Identifying Customers & Their Needs

Forecasting & Feasibility

Creating the Business Case

WHICH ARE COVERED BY SCRUM?

Strategic Product Planning

Identifying Product Requirements

Creating a Roadmap

Release Execution

Auditing Results

Sustaining the Product

Product Launch

Customer Retention

Naming & Branding

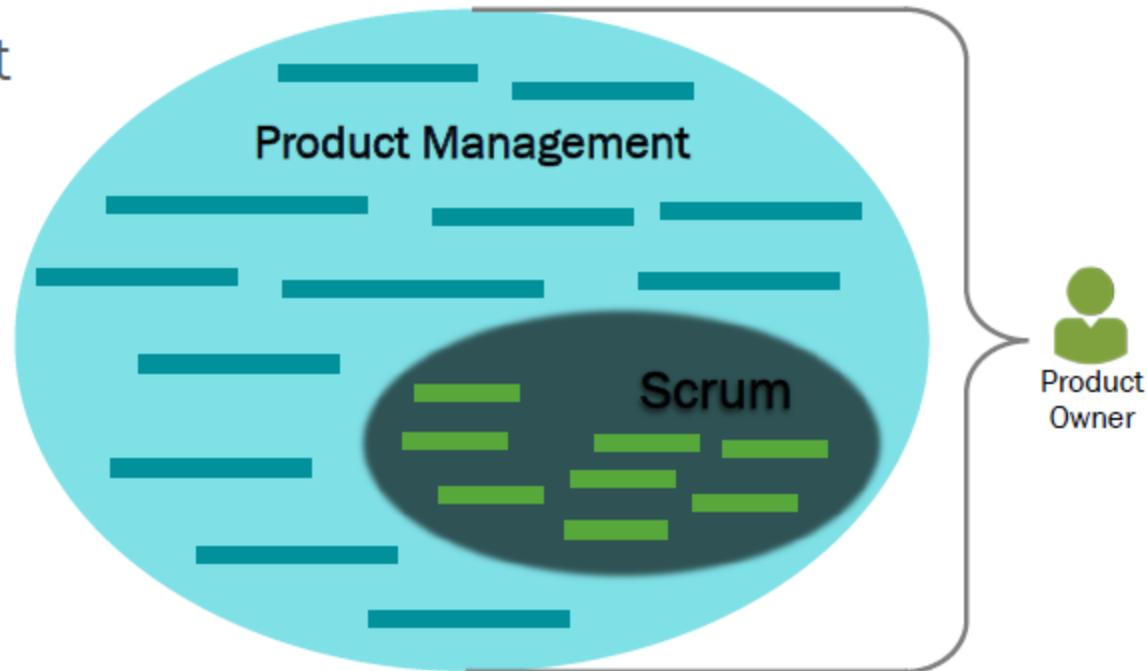
Outbound Messaging

Defining Product Features

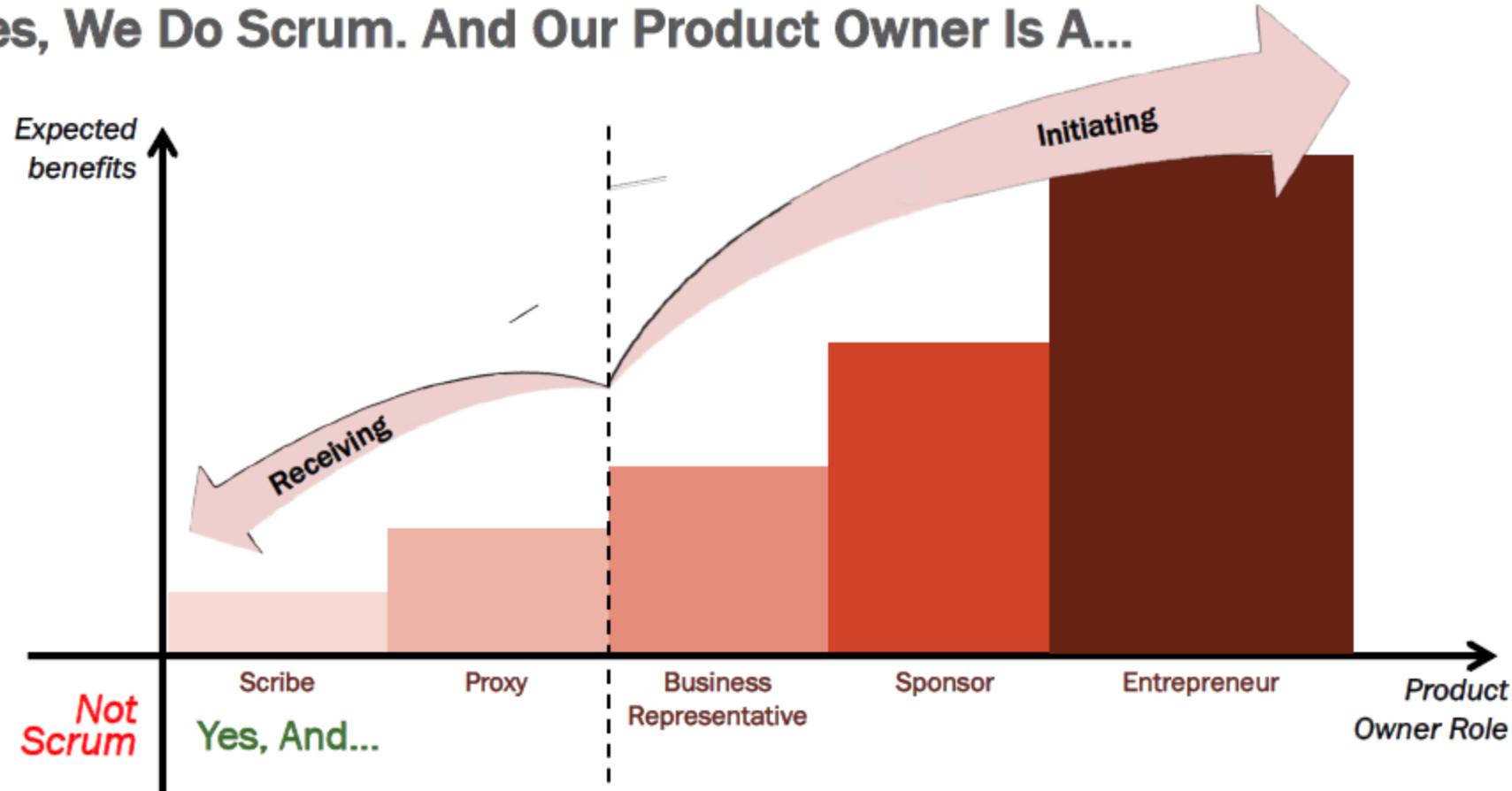
Product Retirement

# Product Owner Is an *Agile* Product Manager

- Communicate vision and value to the Development Team
- Work with Development Team to capitalize on latest technology
- Leverage Scrum for frequent product inspection & adaptation



# Yes, We Do Scrum. And Our Product Owner Is A...



# An *Entrepreneurial* Product Owner

Value

- More Collaboration (w/team & customer)
- Simplify product absorption
- Leverage entire Scrum Team

Just In Time

- Deliver frequently
- Deliver as needed
- Embrace change

ROI

- Optimize productivity
- Deliver only high value items
- Remove negative value items



# Techniques for Modeling Business Strategy

## Business Model Canvas

*The original business strategy canvas*

## Lean Canvas

*A simple problem/solution approach targeted for entrepreneurs and startups*

## Value Proposition Canvas

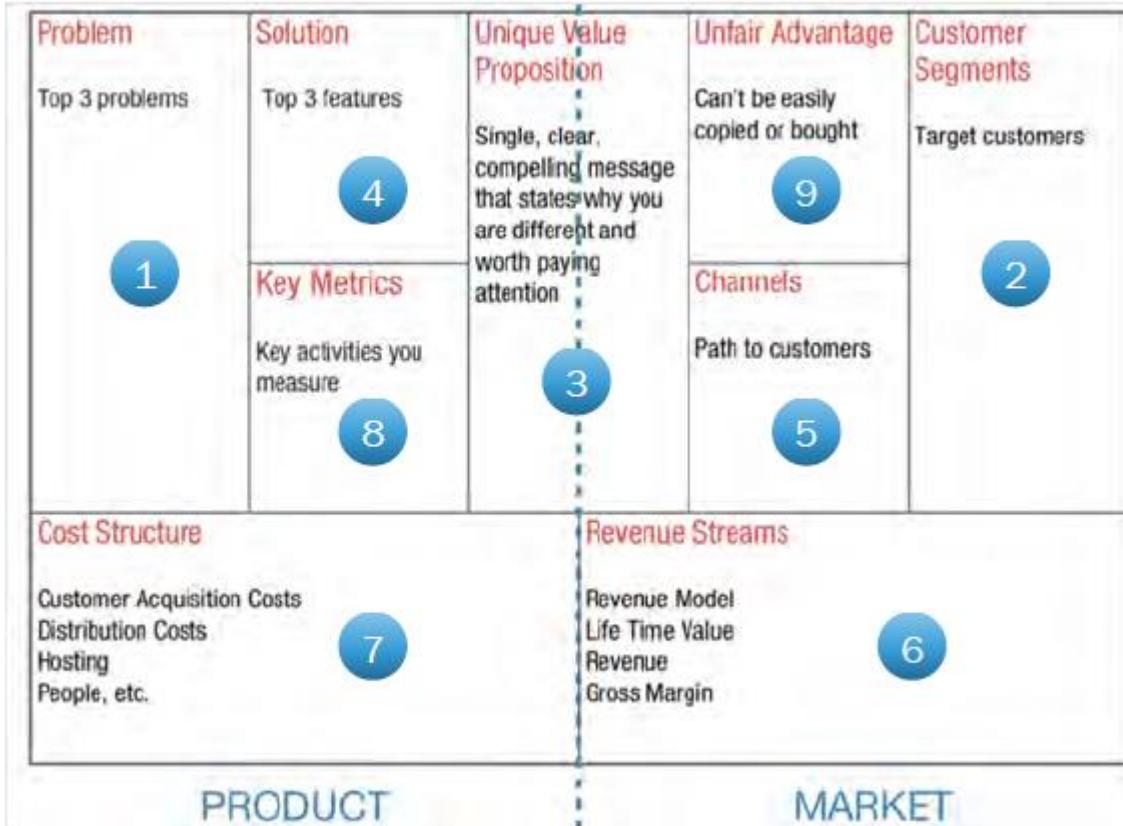
*Helps design product and services your customers want to buy*

Have you used  
any others?

# Business Model Canvas



## Lean Canvas



- 
  - 1** List top 1 to 3 problems  
What are the existing alternatives?  
How do they solve the problems today?
  - 2** Identify main customer(s) / buyer(s)  
Who are the early adopters?
  - 3** Create your UVP, the underlying 'Why'  
How will you get noticed?
  - 4** List top 3 features  
How will you deliver value?
  - 5** Identify a couple of possible channels  
How will you build a path to customers?
  - 6** Come up with revenue stream but keep it simple  
What is the product worth to your clients?
  - 7** Identify your costs and break-even point  
How will you afford your initiative?
  - 8** Identify key value indicators  
How will you measure success?
  - 9** Something that cannot easily be copied or bought  
How will you defend against competition?

Lean Canvas is adapted from The Business Model Canvas (<http://www.businessmodelgeneration.com>) and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License.

# Value Proposition Canvas



## 4 Product & Services:

- Which specific products or services can we create to help this customer get their jobs (tasks) done?
- We do not need to fix it all, decide on one or two jobs that are the most important to address first.
- Is the customer the buyer, user or maybe a co-creator?

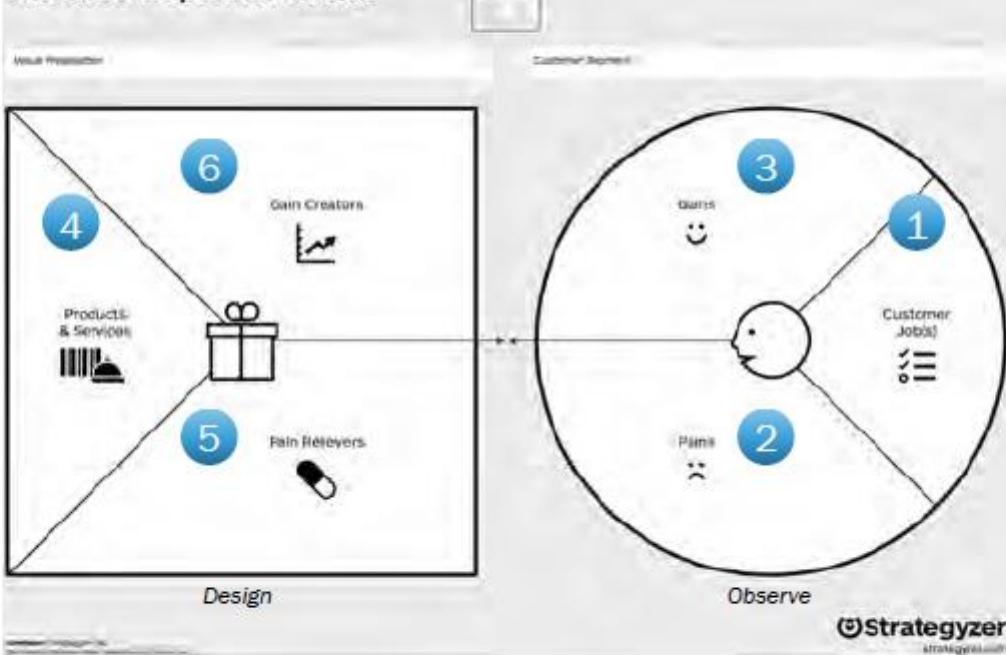
## 5 Pain Relievers:

- Make your customer feel better?
- Produce Savings?
- Fix underperforming solutions?
- Eliminate risks your customers fear?

## 6 Gain Creators:

- Produce outcomes your customer expects or even exceeds?
- Create saving which makes your customer happy?
- Make your customer's job life easier?
- Do something customers look for?

The Value Proposition Canvas



## 1 Customer Job(s):

- What functional jobs are you helping your customer get done?
- What social jobs are you helping your customers get done?
- What emotional jobs are you helping your customer get done?
- What basic needs are you helping your customer satisfy?

## 2 Pains:

- What makes your customer feel bad?
- What does your customer find too costly?
- How are current solutions underperforming for your customer?
- What are the main difficulties and challenges your customer encounter?

## 3 Gains:

- What outcomes does your customer expect and what would go beyond his/her expectation?
- Which savings would make your customer happy?
- How do current solutions delight your customer?
- What could make your customer's job or life easier?

# Business Strategy

15

minutes



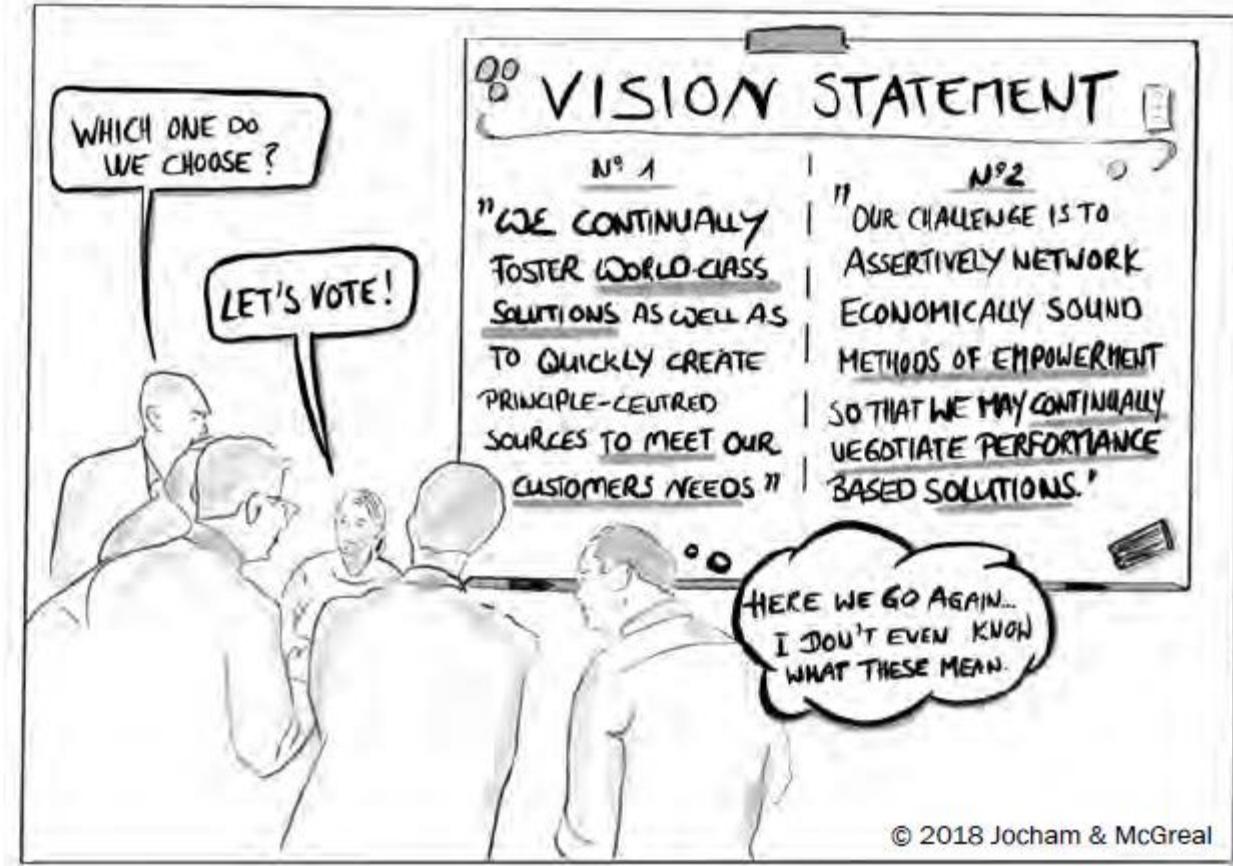
Explore a Business Strategy for your product.  
Important topics to consider:

- Customer Needs
- Who Benefits
- How
- Revenue

# Boiler Plate Warning

Boiler plate vision statements tend to be ignored.

Try pragmatic,  
real & emotional.





# Techniques For Creating A Product Vision

## Product/Vision Box

*A collaboration tool for identifying the most important features and a vision for a product*

## Elevator Pitch Template

*A popular template to help organize thoughts about the vision*

Have you used  
any others?

# Innovation Games® Product Box



## Front

- Product Name
- Image(s)
- Clear Target Customer
- Clear Value Proposition

## Back

- Sub-features



## **Goal: Identify the Most Exciting Product Features**

- The aisles of the supermarkets from around the world are filled with exciting, colorful, wonderful product boxes from all over the world.
- They tell us of products that are new. Improved. New and improved.
- They tell us how these products will make us thinner, smarter, sleeker, happier.
- In the process, the best boxes help move that box from the shelf and into our home.

- *Product Box* is a collaboration framework that lets you leverage your customer's collective retail consumer experiences by asking them to design a product box for your product.
- Not just any box, but a box that represents the product that they want to buy.
- In the process, you'll learn what your customers think are the most important, exciting features of a given product or service.
- Make certain you bring someone from your marketing team along for the ride, as the place they'll end up is certainly going to surprise them.

## The Ask

- Within your team - split into two groups... one group is Walmart and the other group is your “customer”
- Ask your customers to imagine that they’re selling your product \*obviously you decide what your product is\* at a trade-show, retail outlet, or public market.
- Give them a few cardboard boxes and ask them to literally design a product box that they would buy.
- The box should have the key marketing slogans that they find interesting.

## **The TWIST**

- When finished, pretend that you're a skeptical prospect and ask your customer to use their box to sell your product back to you.

## Why It Works

- Regardless of what we tell them, customers want to believe that the product or service that they're buying is going to solve their problems.
- Not just the problems that we told them they have during the sales process, but the real problems that are driving their purchase.
- In some cases, these may match. In others, customers, even during the sale, may not be able to fully understand, much less articulate, the problems that are driving the sale.
- *Product Box* gives customers a way to tap into these deep needs and express them when they are selling their product back to us.



# Product Vision Template



**FOR** ... [target audience]

**WHO** ... [need, want]

[product name] **IS A** ... [market category]

**THAT** ... [one key benefit]

**UNLIKE** ... [competition or current situation]

**OUR PRODUCT** ... [competitive advantage]

\* From "Crossing the Chasm" Geoffrey Moore

# Product Vision

15

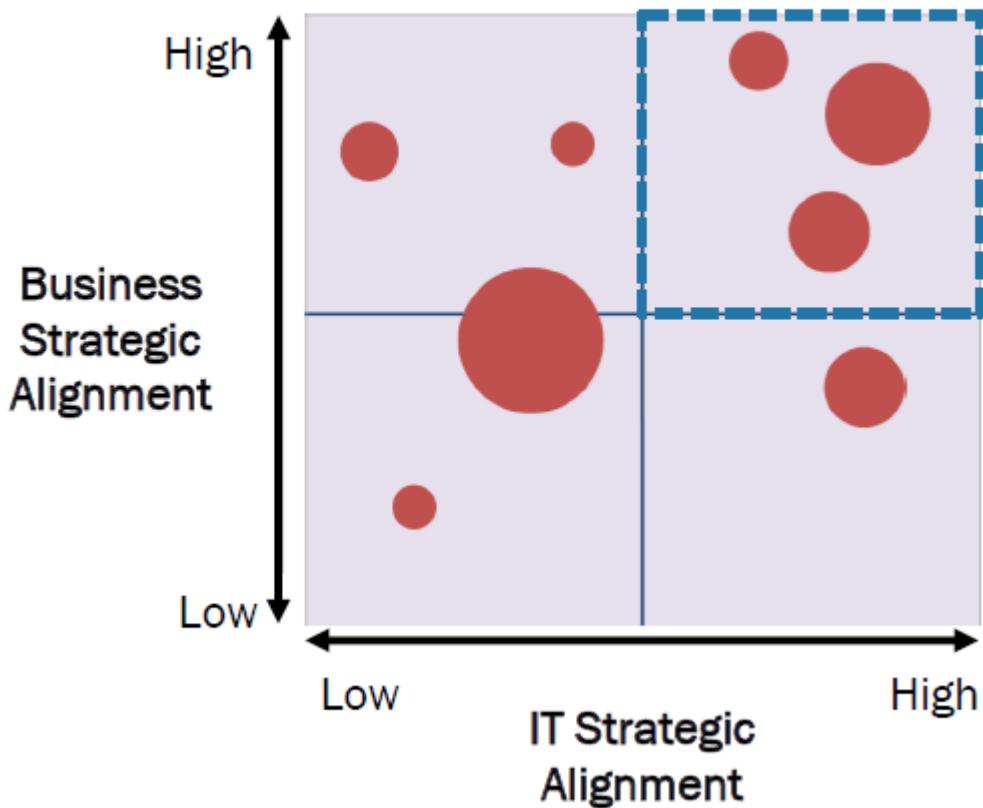
minutes



Craft a Vision for your product:

1. Select a technique
2. Collaborate on a vision for your product
3. Prepare to pitch your product to the class

# Strategic Alignment Index



Highest benefits are most likely realized when building these products or features

Size of bubble = TCO

Total Cost of Ownership (TCO) and value are variables used in development prioritization.

Source: "Measuring the Business Value of Information Technology", Intel Press

# Discontinuing Products Is Not What Kills You

Discontinuing a product is a healthy business decision  
(unless you rely on too few products)

- Apple Newton
- Apple iPod classic
- Google Glass
- Google Wave
- iGoogle
- Google Reader
- Amazon Fire



# Product Owner and Technology

5

minutes



## Should a Product Owner be technical?

PROS	CONS

## Great CEOs Must Be Either Technical or Financial – Forbes Article

*“Technology skills do not necessarily mean hands-on skills, though they can arise from hands-on experience. It means simply understanding the technical state of play in the environment in a way that you can make exceptional decisions.”*

*“Technology changes suddenly expand the strategy canvas and offer new ways of doing old things, or entirely new things to do.”*

<http://www.forbes.com/sites/venkateshrao/2012/03/09/great-ceos-must-be-either-technical-or-financial/>

# What About These Product Managers?



# TAKE AWAY

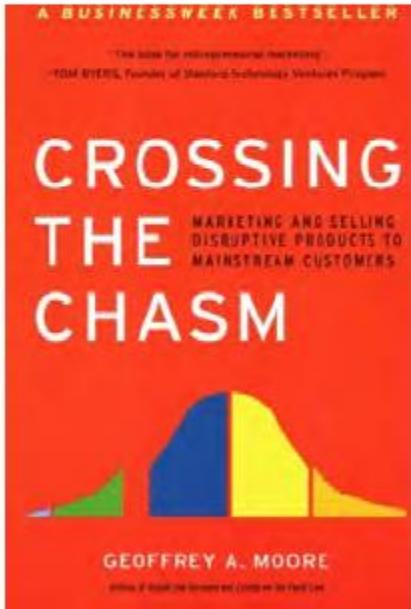
## Agile Product Management

- Product Management is essential practice for Scrum Product Owners.
- Organizations should take on more of a Product Mindset over a Project Mindset.
- There are many tools that can help establish a business model, vision, etc.
- There are advantages to having a technical Product Owner.

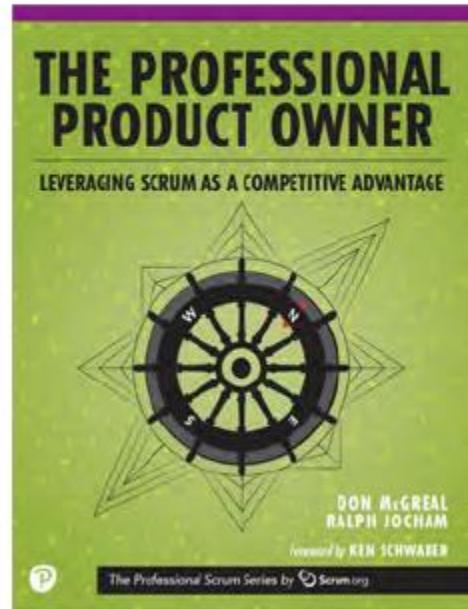


# Suggested Reading

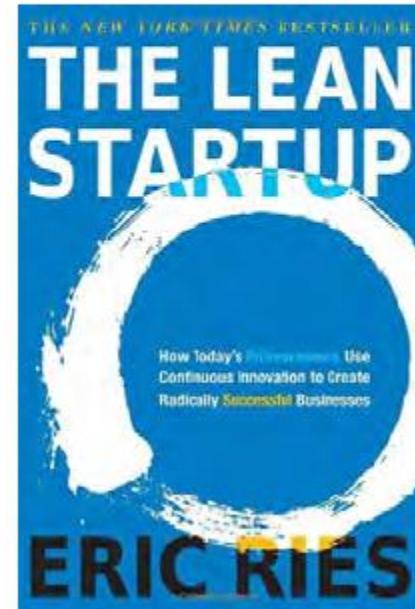
**"Crossing the Chasm"**  
(Geoffrey Moore)



**"The Professional Product Owner"** (Don McGreal & Ralph Jocham)



**"The Lean Startup"**  
(Eric Ries)



# Test Time

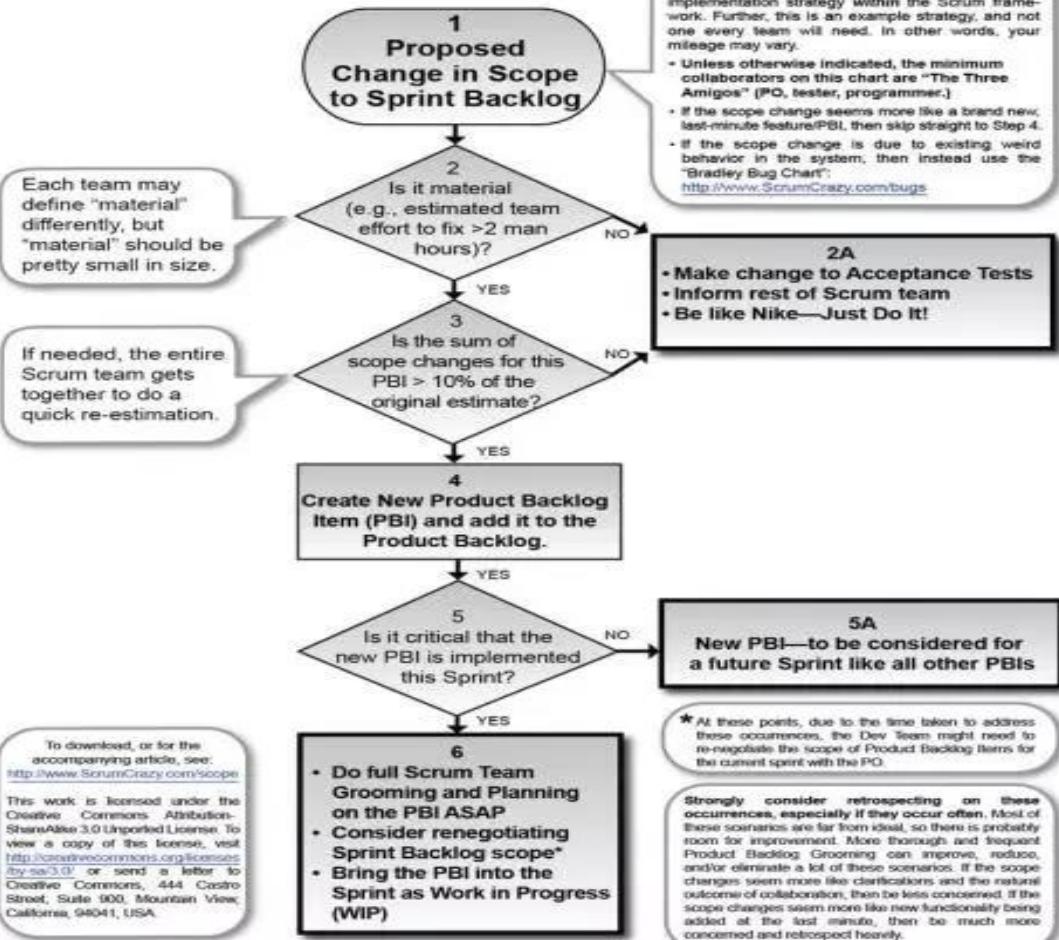
<http://scrum.org/open-assessments>

You will NOT have a perfect score and that is ok. Please jot down any questions you got incorrect in your workbook.

Please take the exam TWICE.

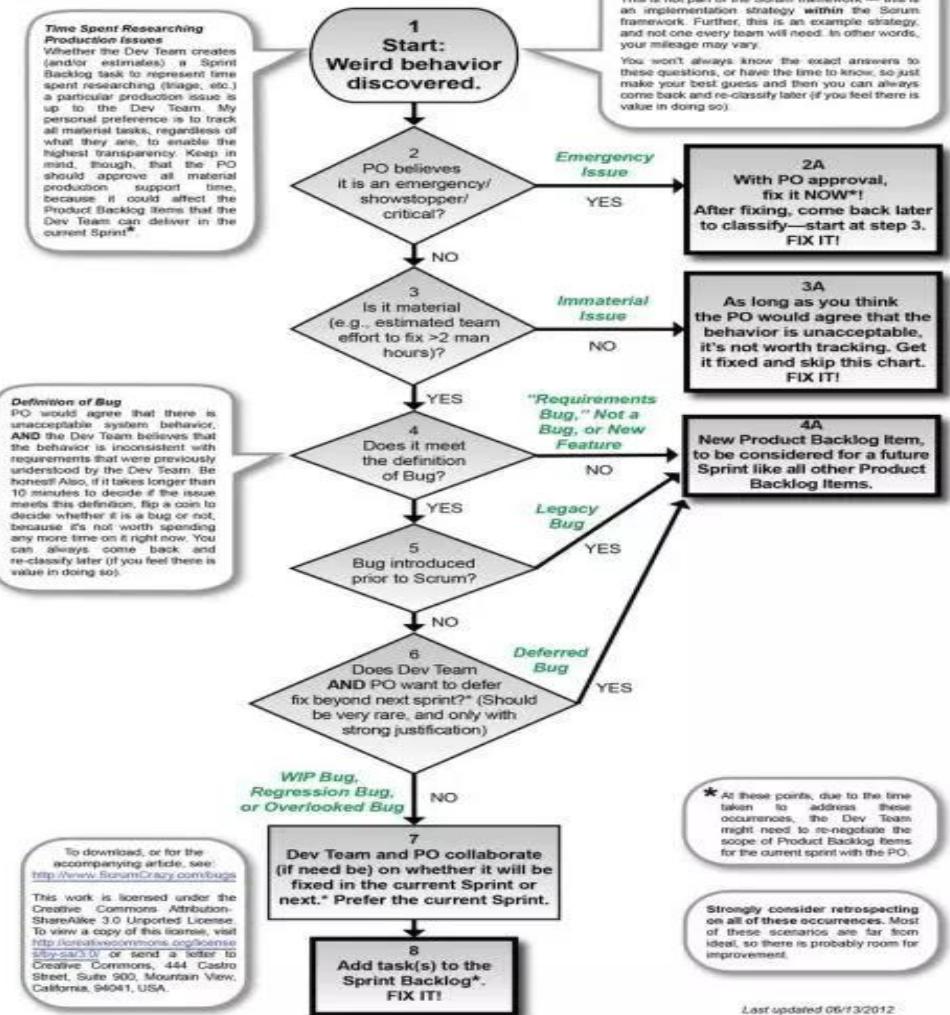
## The Bradley Scope Change Chart

<https://jmp.sh/bagbfCo>



# The Bradley Bug Chart

<https://jmp.sh/GwQoFG5>



# Kanban

<https://jmp.sh/Y24EaDX>

	Kanban	Scrum
Roles & Responsibilities	<p>There are no pre-defined roles for a team. Although there may still be a Project Manager, the team is encouraged to collaborate and chip in when any one person becomes overwhelmed.</p>	<p>Each team member has a predefined role, where the Scrum master dictates timelines, Product owner defines goals and objectives and team members execute the work.</p>
Due Dates / Delivery Timelines	<p>Products and processes are delivered continuously on an as-needed basis (with due dates determined by the business as needed).</p>	<p>Deliverables are determined by sprints, or set periods of time in which a set of work must be completed and ready for review.</p>
Delegation & Prioritization	<p>Uses a "pull system," or a systematic workflow that allows team members to only "pull" new tasks once the previous task is complete.</p>	<p>Also uses a "pull system" however an entire batch is pulled for each iteration.</p>

Modifications / Changes	Allows for changes to be made to a project mid-stream, allowing for iterations and continuous improvement prior to the completion of a project.	Changes during the sprint are strongly discouraged.
Measurement of Productivity	Measures production using "cycle velocity through sprints. Each time," or the amount of time it takes to complete one full piece of and/or concurrently so that each a project from beginning to end.	Measures production using sprint is laid out back-to-back additional sprint relies on the success of the one before it.
Best Applications	Best for projects with widely-varying priorities.	Best for teams with stable priorities that may not change as much over time.



*"Price is what you pay. Value is what you get."*

- Warren Buffett

3

## Value-Driven Development

# Value

3  
minutes

## What is value?

<https://prezi.com/view/IdxLCrrM3Fxsfw4NtZqL/>

## For organizations, value is...

The benefit to the customer, represented in terms of **happiness**, that results from the use of a product or service.

The benefit to the organization, represented in **money** terms, that results from the use of a product or service.

The **benefit to society**, not necessarily represented in money terms, that results from the use of a product or service.

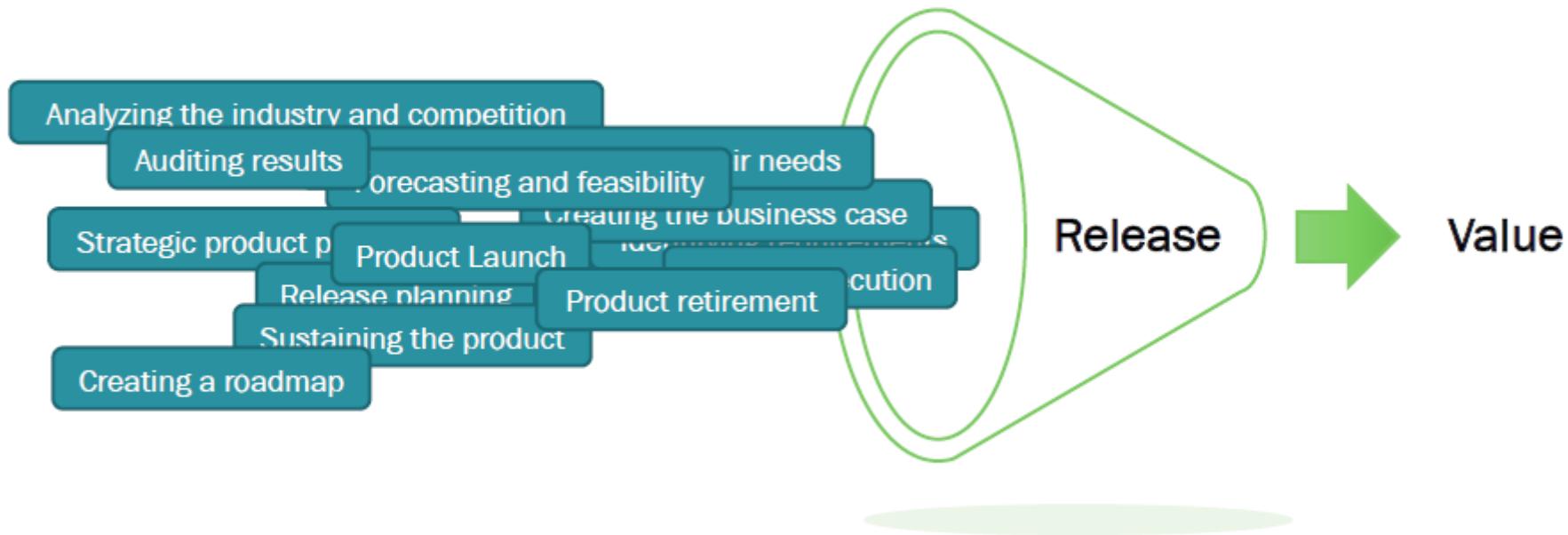
Favor **Value Creation** over Revenue Extraction

## Delivering Value

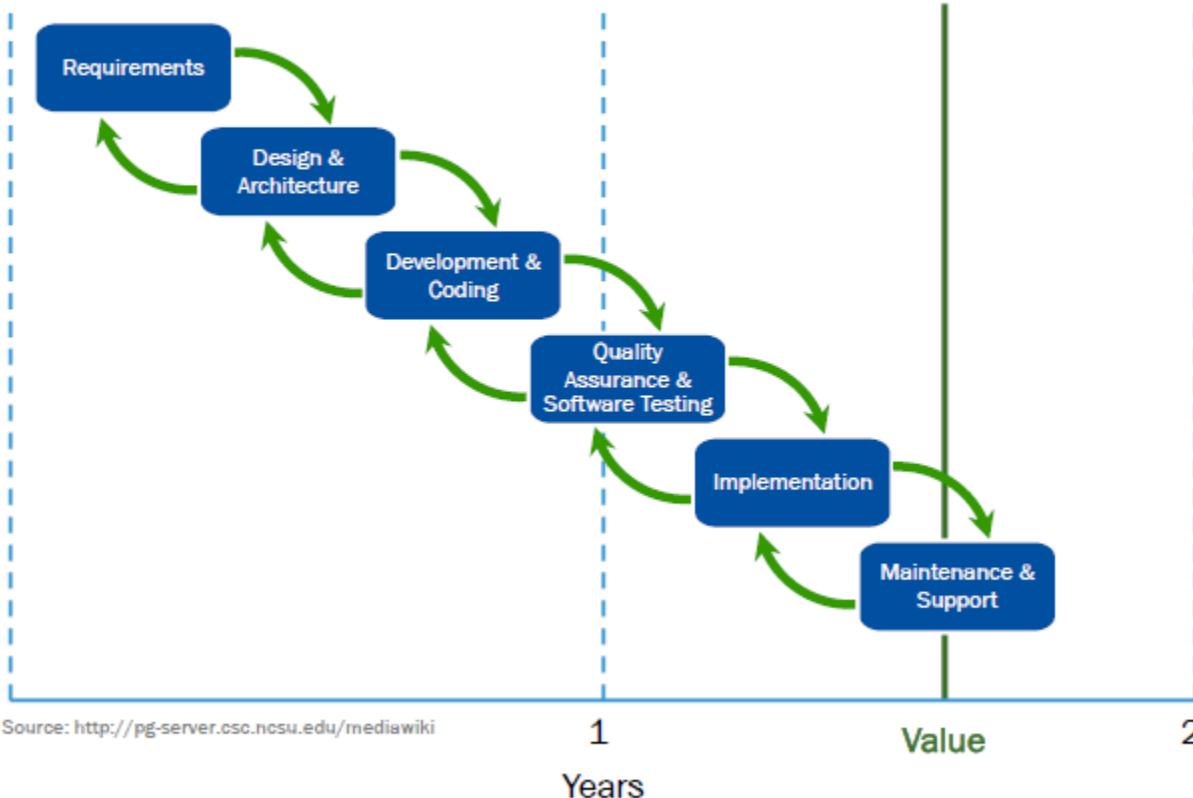


What is the only way for a Scrum Team to deliver value?

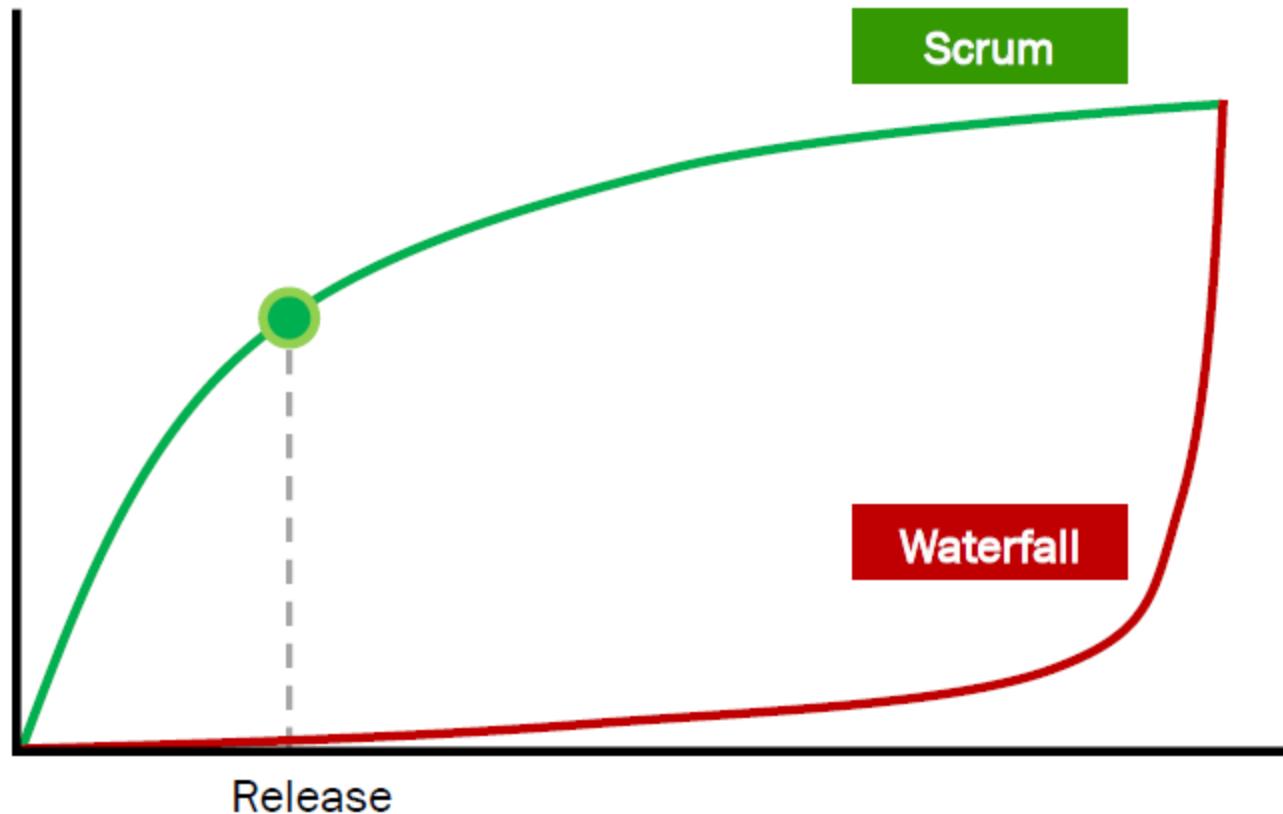
# A Release Is Needed to Realize Value



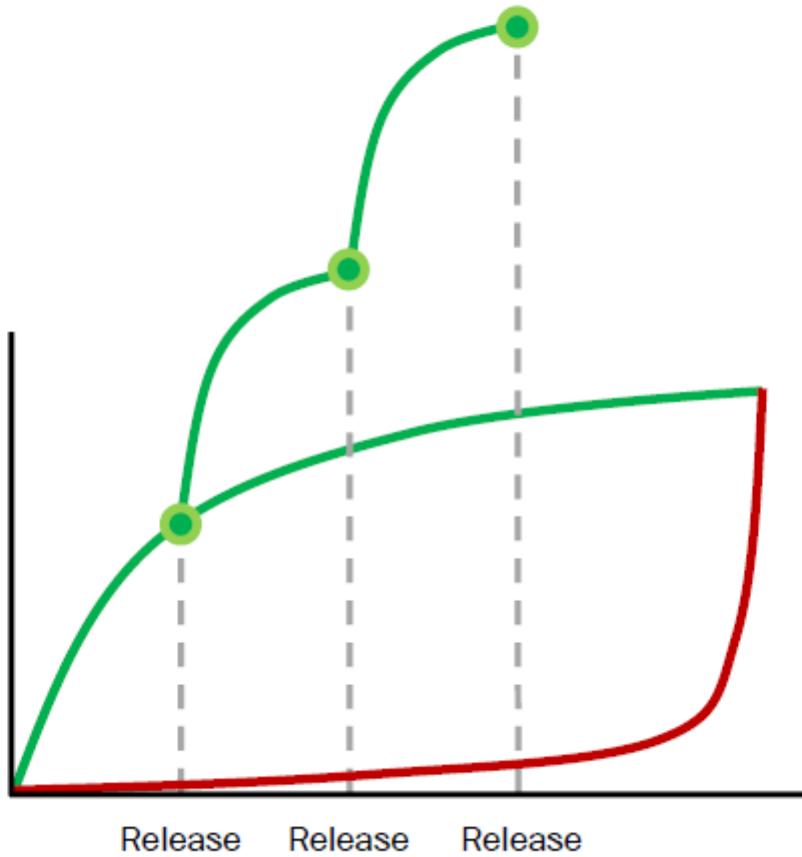
# Traditional Development Delays the Realization of Value



# Business Value Over Time



# Business Value Over Time – Optimized



## Who Delivers Value?

2

minutes

In Scrum, who's responsible for delivering value?

## How Do You Measure?

5  
minutes

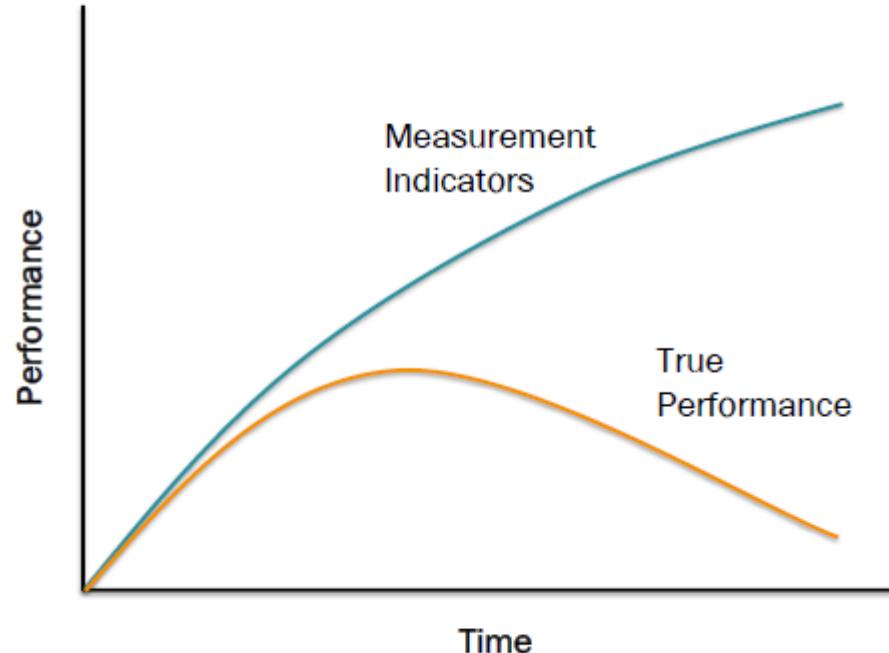
- What are you currently measuring?
- Do you apply any metrics?
- Are incentives in place for any of them?

# Information Value Neutrality

*“Once an indicator or other surrogate measure of performance is made a target or incentive for the purpose of driving behavior, it loses the information content that qualifies it to play such a role.”*

Source: Robert D. Austin  
*Measuring and Managing Performance in Organizations*

*Sub-optimal metrics and the law of unintended consequences.*



# Value

5

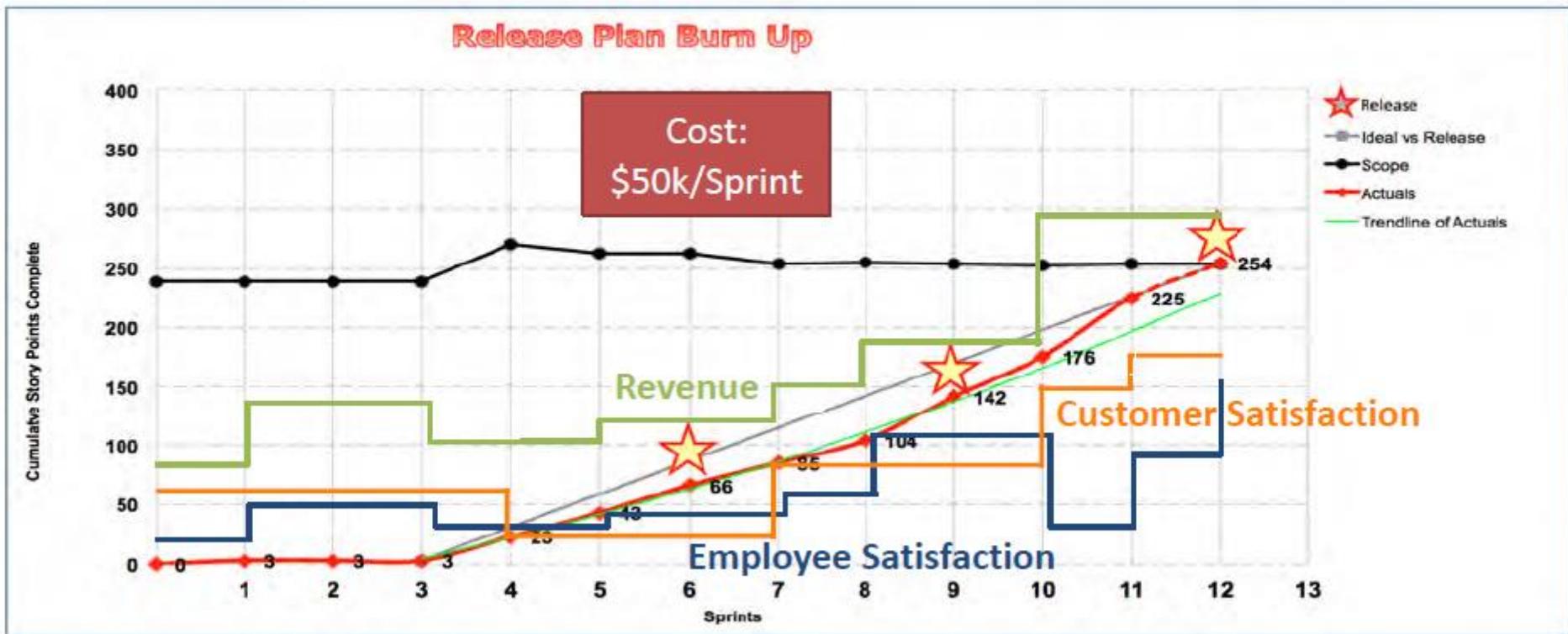
minutes



How do you know your product is creating value?

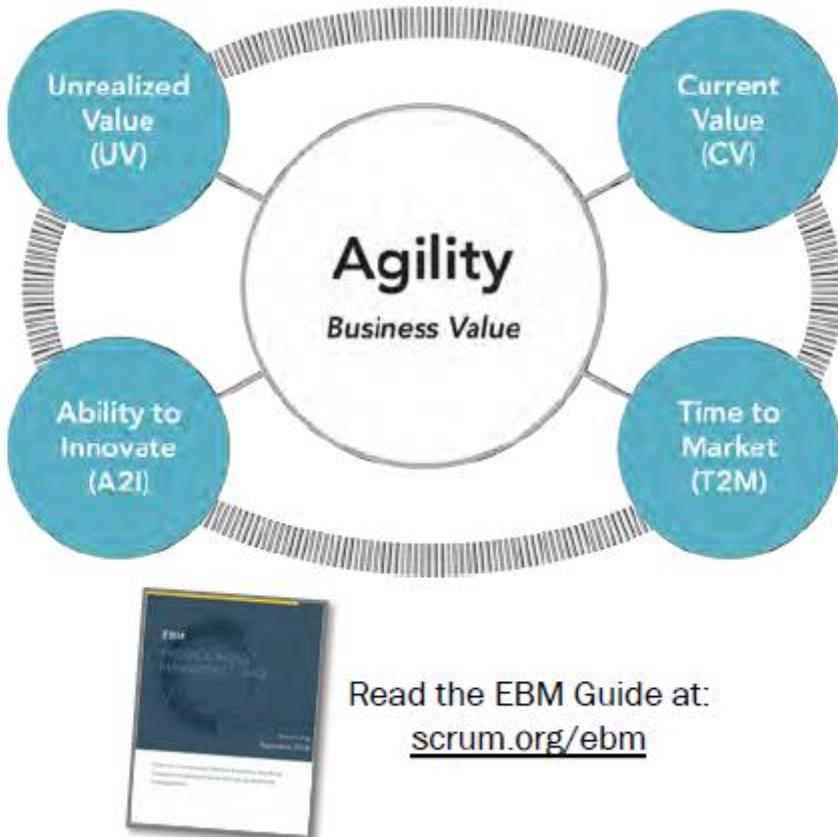
- In your team, determine how you know your Product will create value. What metrics will you use?
- Determine how you know if a particular feature or enhancement is creating value.
- Is it possible to create negative value?

# The Right Metrics Can Provide Insight Into Actual Value Delivered



# Value Measures

- Market Share
- Customer or User Satisfaction Gap



- Revenue per Employee
- Product Cost Ratio
- Employee Satisfaction
- Customer Satisfaction
- *Usage Index*

- *Innovation Rate*
- *Time spent context switching*
- *Usage Index*
- *Installed Version Index*
- *Technical Debt*
- Defect Trends
- Product Incident Trends

- Build & Integration Frequency
- Release Frequency
- Release Stabilization Period
- Mean Time to Repair
- Cycle Time
- Lead Time
- *On-Product-Index*
- Time to Learn

# Product Variations

5

minutes



Commercial Use

VS.

Internal Use

Are different values at play?

Who is the customer and employee?

What is the impact on the Product Owner role?

# Innovation Rate

What percentage of your product budget is spent on:

- Building new functionality

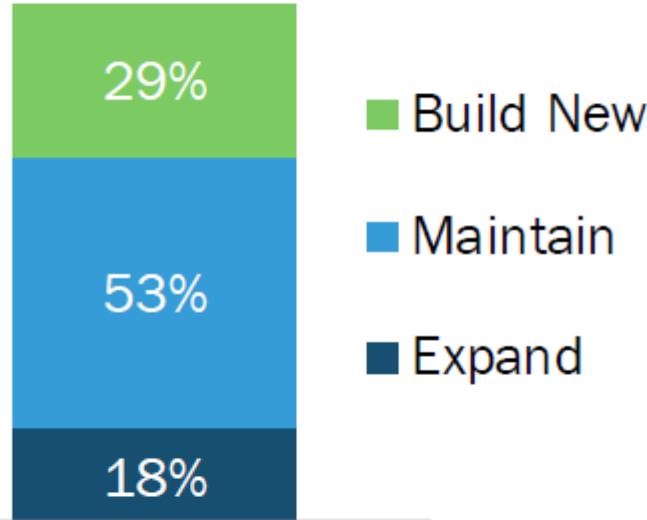
vs.

- Maintaining the existing

vs.

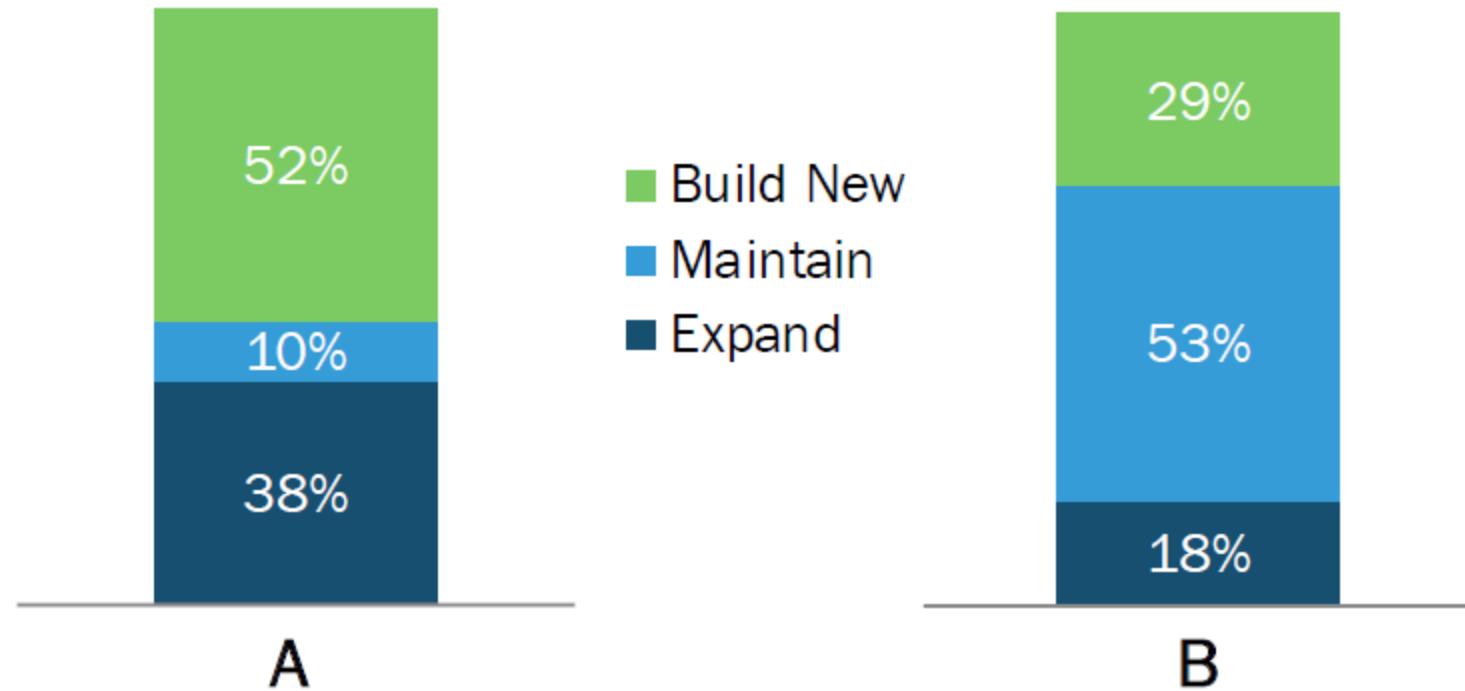
- Expanding capacity?

## 2010 IT Budgets



Source: Forrester, October 2010, 2011 IT Budget Planning Guide For CIOs

# Innovation Rate. Which Is Better?



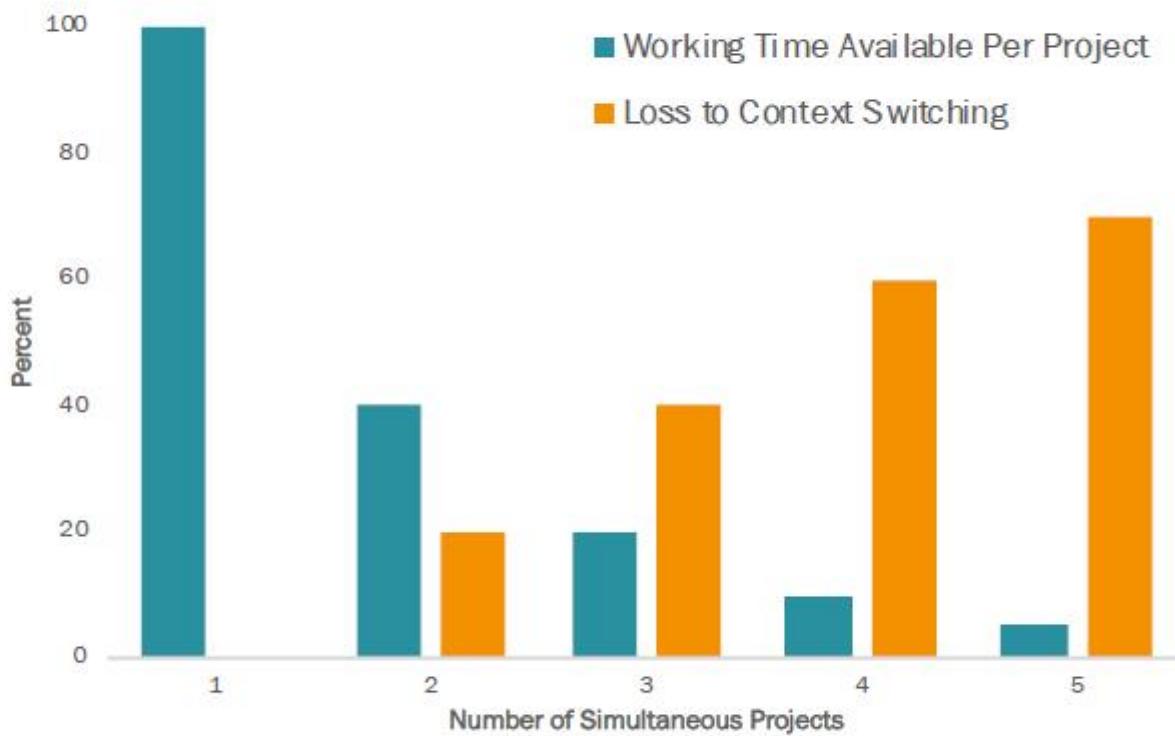
## On-Product Index

Percent of time team spends working on product and value



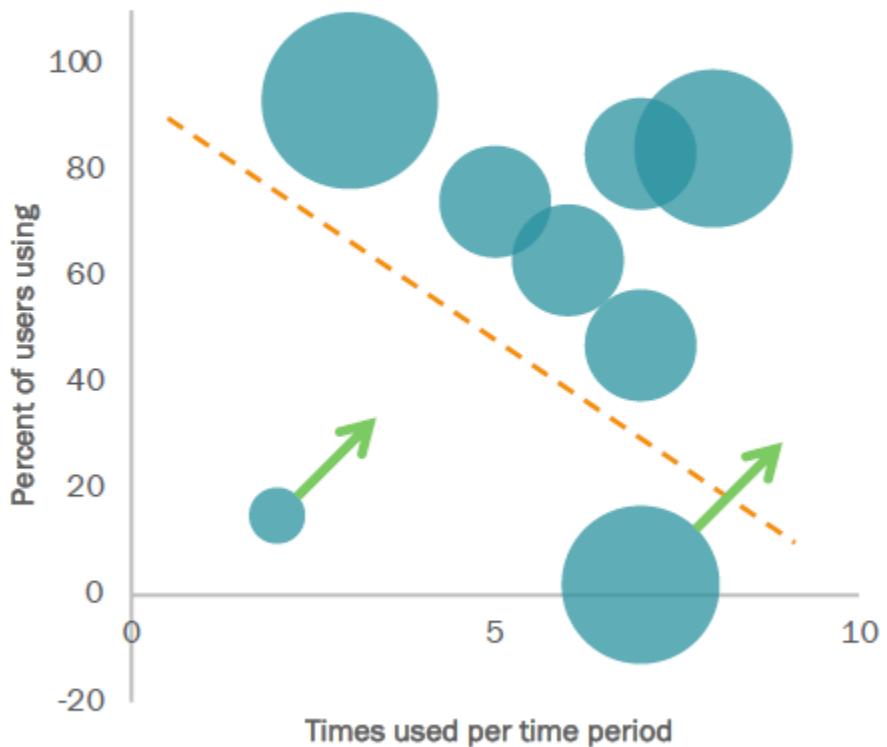
Generally, higher is better

# On-Product Index



Task switching  
destroys  
efficiency and  
quality.

# Usage Index



- Build things that people will actually use.
- If they aren't, try to figure out why and drive more usage. If you can't, get rid of the feature.

 Higher tends to be better

Size of bubble = Time spent using

# Securing Success by Securing Scope?

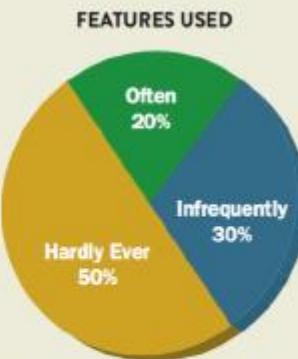
Too many products are designed on the premise that the initial information and assumptions are valid throughout the entire planning horizon.



Features and Function Usage  
Standish Group 2002



The reported value returned for projects that met the triple constraints.



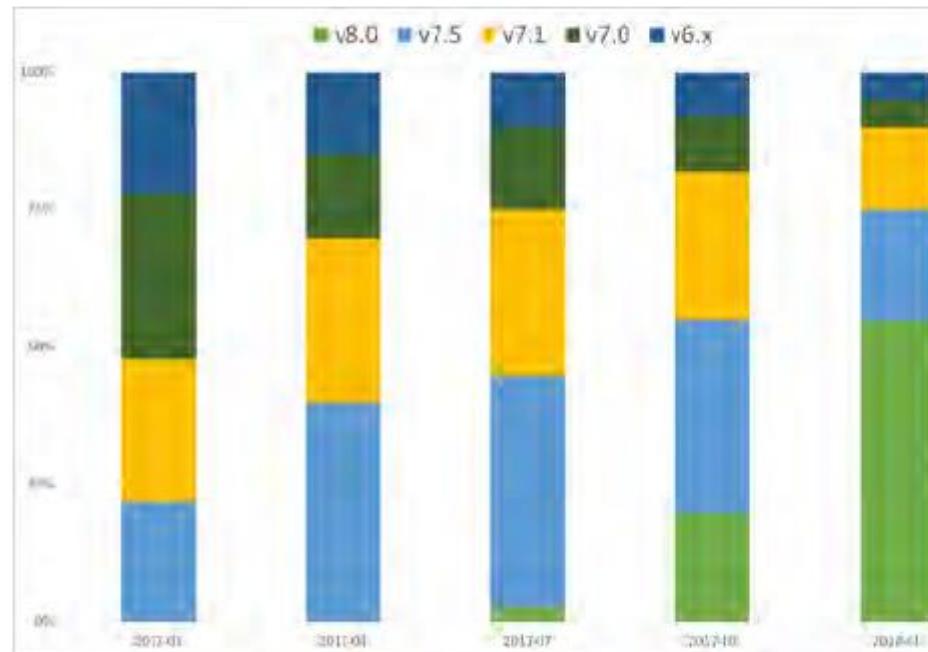
The Standish Group estimates of features used in custom application development.

Exceeding Value  
Standish Group 2014

## Monitoring product absorption

# Installed Version Index

What percentage of your customers are on your latest (n) release?



## What Do You Do as a Product Owner to Influence These Metrics?

10  
minutes

Innovation Rate

On-Product Index

Usage Index

Installed Version Index

# TAKE AWAY

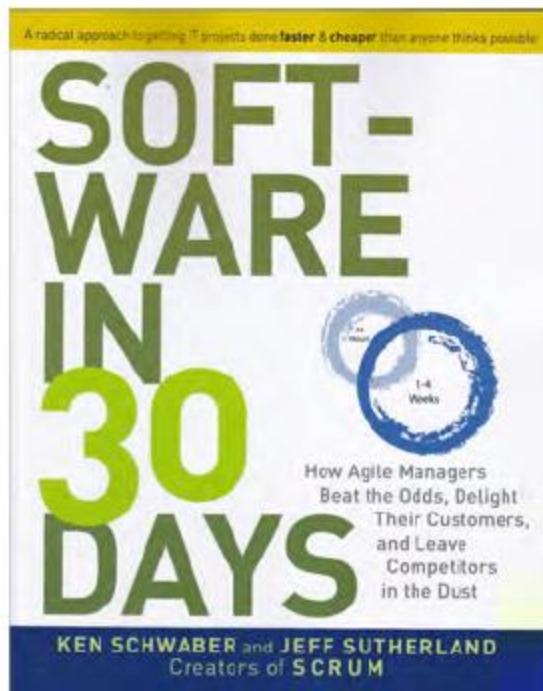
## Value-Driven Development

- Value in itself is difficult to quantify.
- Value is an assumption until validated by the marketplace.
- Key Value Indicators are metrics that indicate whether value is actually being delivered.
- Favor Value Creation over Revenue Extraction



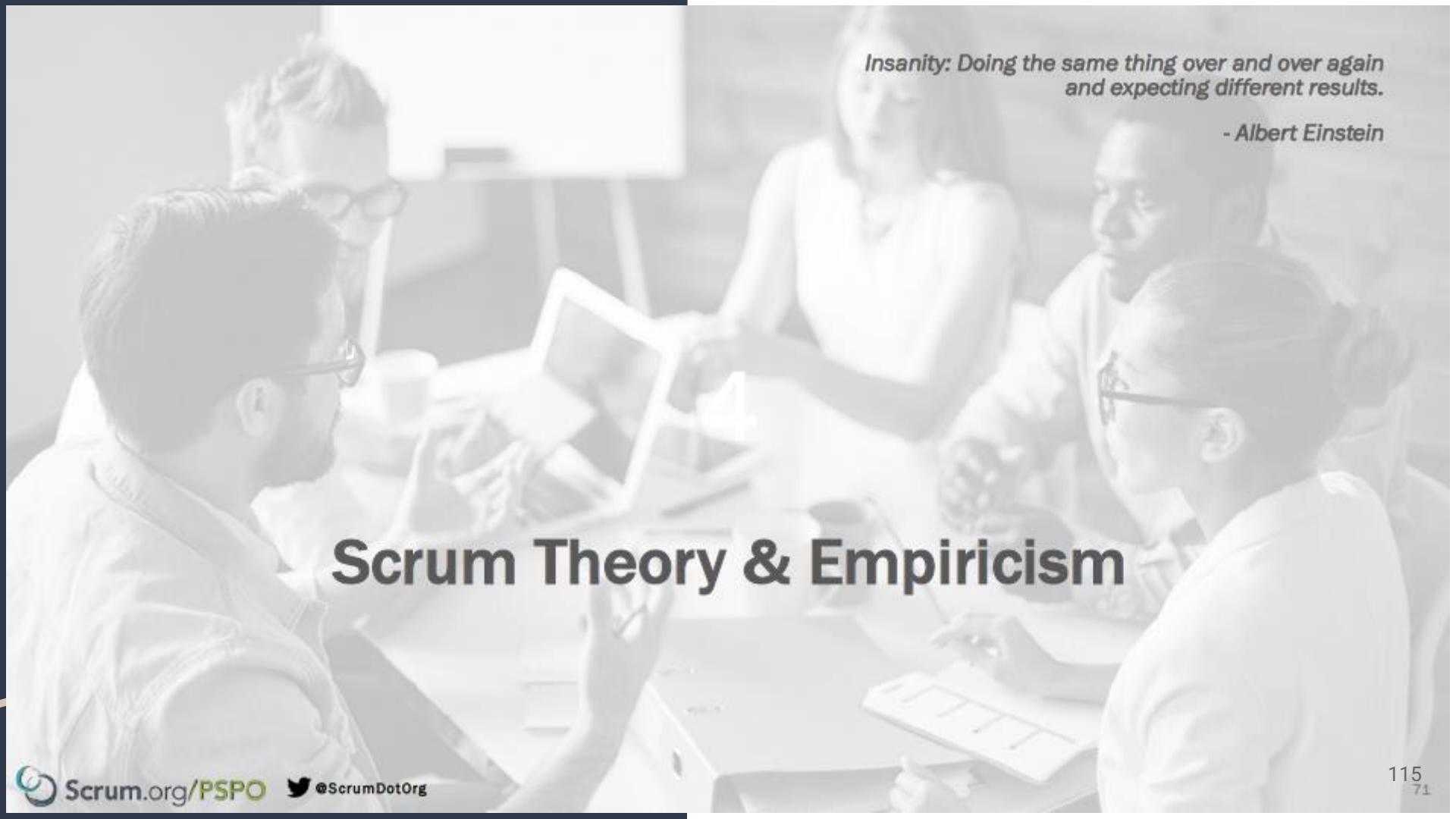
# Suggested Reading

“Software in 30 Days” (Ken Schwaber, Jeff Sutherland)



“The Elements of Value” (Almquist, Senior, Bloch)





*Insanity: Doing the same thing over and over again  
and expecting different results.*

- Albert Einstein

# Scrum Theory & Empiricism

# When Will It Be Ready?

2

minutes



The management committee wants to know when your product will be ready.

- What do you say?
- How would you proceed?

## The Complexity of Product Development

5

minutes



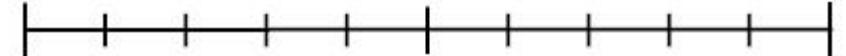
List the variables that have to be considered in product development.

- How predictable are they?
- What would you do to control them?

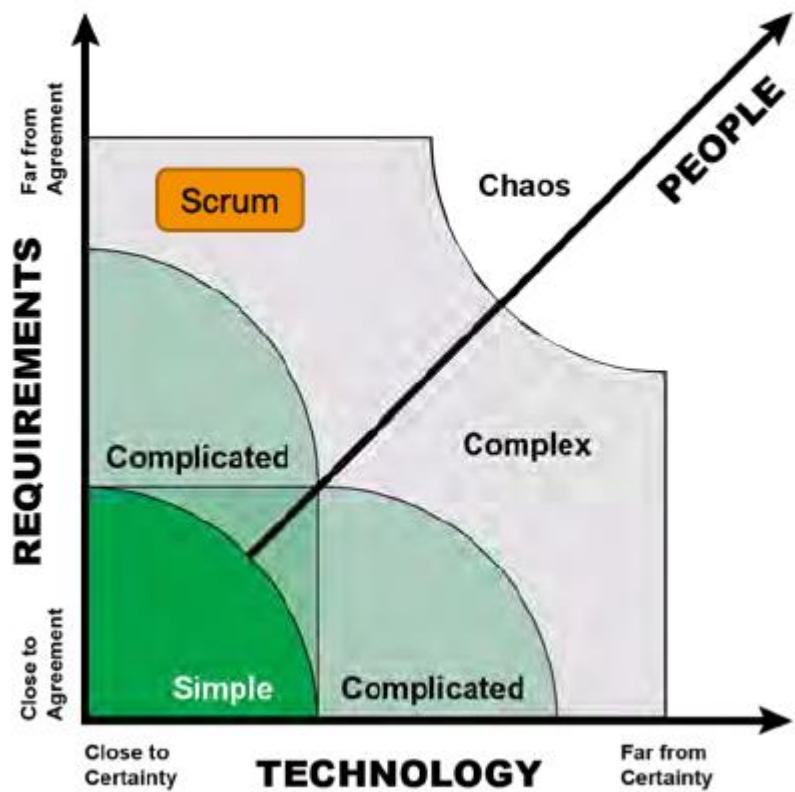
# The Predictability of Software Development

5  
minutes

Put a slider (▼) at 0-10 for the 3 major variables in software development on the scale of unpredictability:

- \_\_\_\_\_ : 
- \_\_\_\_\_ : 
- \_\_\_\_\_ : 

# The Complexity of Product Development



- Simple  
*everything is known*
- Complicated  
*more is known than unknown*
- Complex  
*more is unknown than known*
- Chaotic  
*very little is known*

# Situation Dictates the Type of Process

## DEFINED

- Given a well-defined set of inputs, the same outputs are generated every time
- Follow the pre-determined steps to get known results

Examples: Assembly line, construction, accounting

## EMPIRICAL

- Frequent inspection and adaptation occurs as work proceeds
- Outputs are often unpredictable and unrepeatable

Examples: Sales, marketing, theater, creative writing

# Empirical Processes Require Trust & Courage

Trust & Courage

Transparency

Inspection

Adaptation



# Scrum Values

- The Scrum Values are the foundation for behavior and practices in Scrum.
- They are closely related to the theory and first principles of Scrum and support teams in their work.
- The Scrum Team can always fall back on these essentials.



© Scrum.org

Scrum Values are the life blood of the Scrum Framework.

# TAKE AWAY

## Empirical Process Control

- Product development resides in the complex domain.
- The best fit for complexity is the empirical process.
- The 3 legs of empiricism are inspection, adaptation, and transparency.
- Transparency requires trust and courage.



# Suggested Reading

"The New New Product Development Game" (Takeuchi, Nonaka)

## The New New Product Development Game

by Hirotaka Takeuchi and Ikujiro Nonaka

 Harvard Business Review

Report R010

"A Leader's Framework for Decision-Making" (Snowden, Boone)

## Harvard Business Review

### A Leader's Framework for Decision Making

by Daniel J. Pink and Amy C. Edmondson

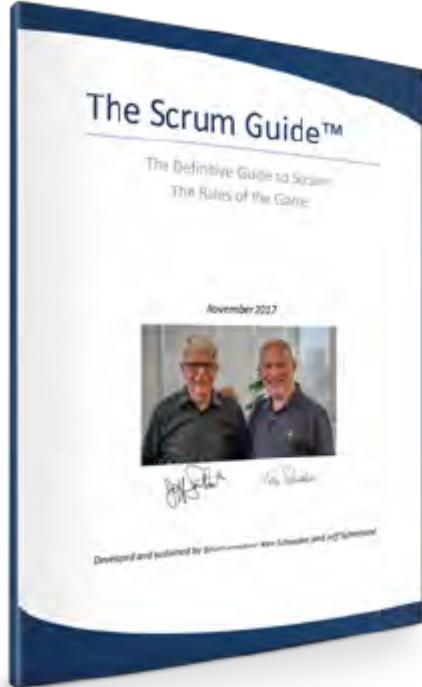
A black and white photograph of four people in a meeting room. A man in a dark jacket is gesturing with his hands while speaking. A woman in a patterned top is listening attentively. Another man and a woman are also present, engaged in the conversation. The room has large windows in the background.

*"If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it."*

- Steve Jobs

# The Scrum Framework

# Definition of Scrum



[www.scrumguides.org](http://www.scrumguides.org)

## Scrum (*noun*):

A framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

Scrum is

- Lightweight tool for enabling business agility
- Simple to understand, yet difficult to master

# What Is Needed for Scrum?

5

minutes

Explore the elements in the Scrum framework:

Roles	Artifacts	Events
•	•	•
•	•	•
•	•	•
		•
		•

# Roles: Each One Has a Specific Accountability



Product Owner

- Optimizes value of the Product
- Manages the Product Backlog



+ Development Team

- Creates “Done” Increments
- Manages itself



+ Scrum Master

- Manages the Scrum process
- Coaches the Product Owner and Development Team
- Removes Impediments

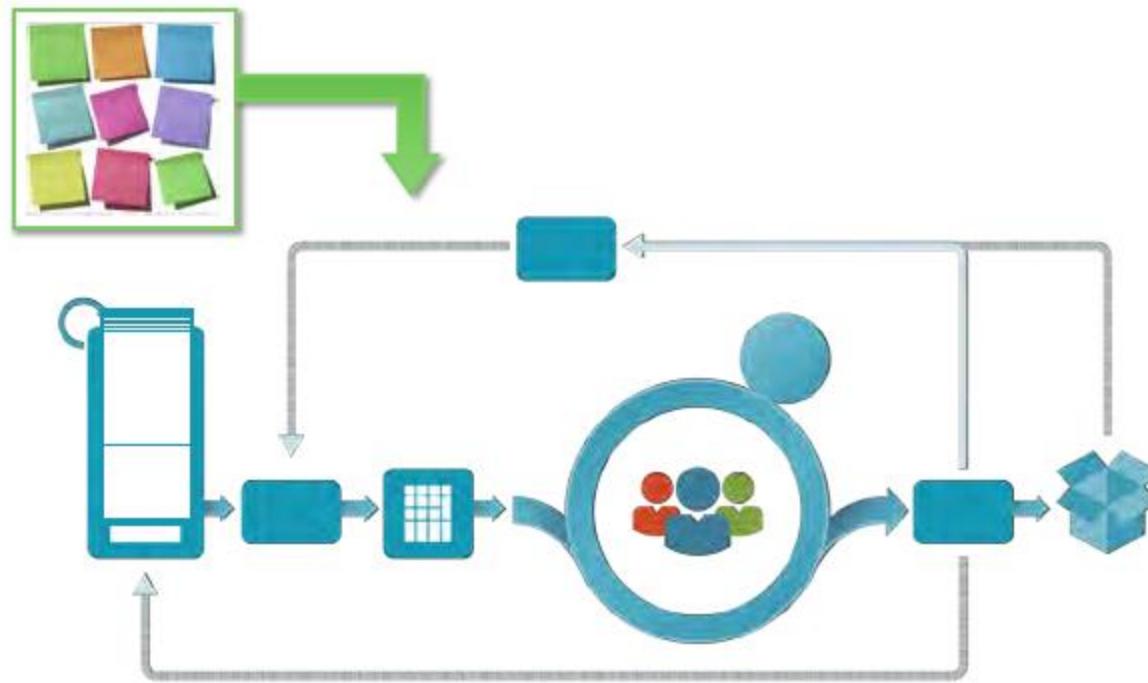


- SCRUM TEAM

# Fitting the Pieces Together

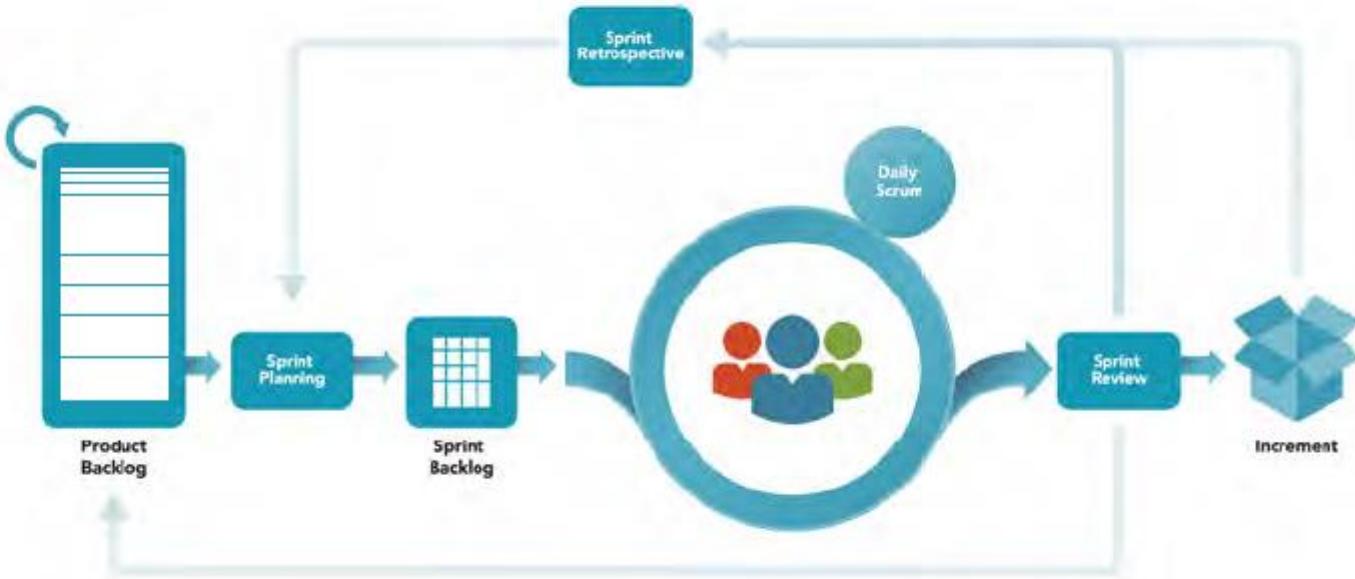
30  
minutes

Each student, pick an identified element of Scrum, add it to the following scheme and explain how this relates to the Product Owner:



# Roles, Artifacts and Events in the Scrum Framework

Roles
<ul style="list-style-type: none"><li>• Product Owner</li><li>• Development Team</li><li>• Scrum Master</li></ul>
Artifacts
<ul style="list-style-type: none"><li>• Product Backlog</li><li>• Sprint Backlog</li><li>• Increment</li></ul>
Events
<ul style="list-style-type: none"><li>• Sprint</li><li>• Sprint Planning</li><li>• Daily Scrum</li><li>• Sprint Review</li><li>• Sprint Retrospective</li></ul>



## Exploring the Purpose of a Product Owner

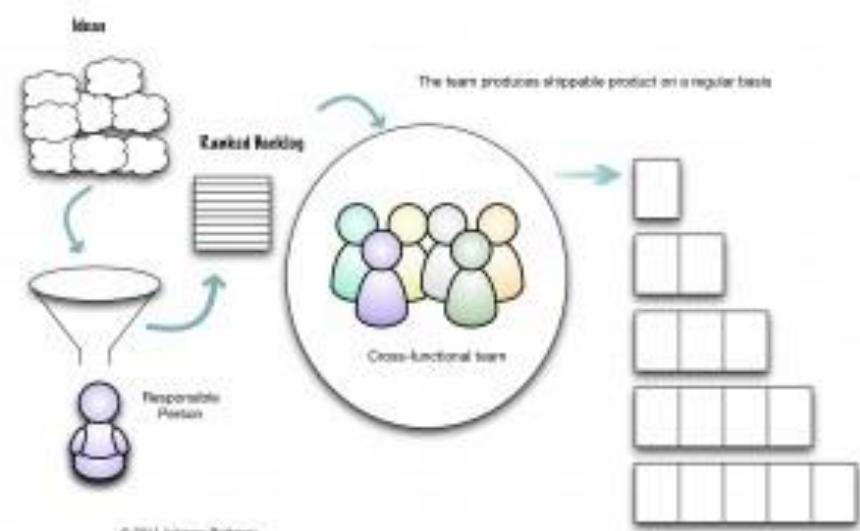
5  
minutes

You run into a Scrum Team where there isn't really a Product Owner in the team. The Development Team therefore creates the Product Backlog.

**What would you advise them?**

# So why is it so bad for a team to call itself Scrum-but?

- Because it's not Scrum-but. It's not Scrum.
  - It's iterative and incremental, but it's not even close to Scrum. It's not agile.
- When you have no product owner who is not outside the team, or outside the hierarchy of the team, you lose something very precious to agility, the notion of the customer or customer surrogate.
  - You lose the person who could be helping the team understand what the customer really wants. You lose the back-and-forth about the product that the customer helps the team understand.
- The manager can help the team understand the requirements, but **the manager is not the customer**.
  - The manager is not the person who can set the real acceptance criteria. The manager can see the demo, but the manager cannot say for sure that the team is developing the correct requirements in the correct order.



# The Rewrite Fallacy

## PURPOSE

Discover the need for a Product Backlog

5

minutes

Your organization has a legacy application that “works fine” but is getting increasingly difficult/expensive to support. It is going to be re-written using modern technologies. Larry is the Product Manager.

Larry says the users are completely happy with the existing system and use all of its features (though usage statistics are not available).

Larry claims that the new system must “do exactly what the old system did.” Because of this, he says there is no need for a Product Owner or a Product Backlog, let alone any need for assigning business value.

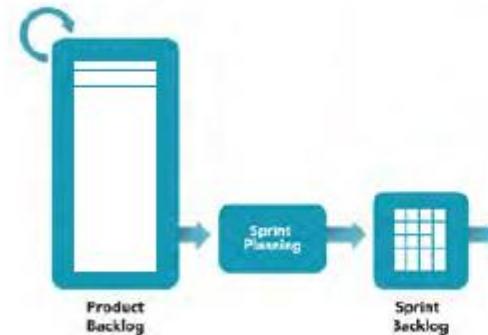
**Question: Is Larry helping or hindering? How?**

# Key Points for the Product Owner

2

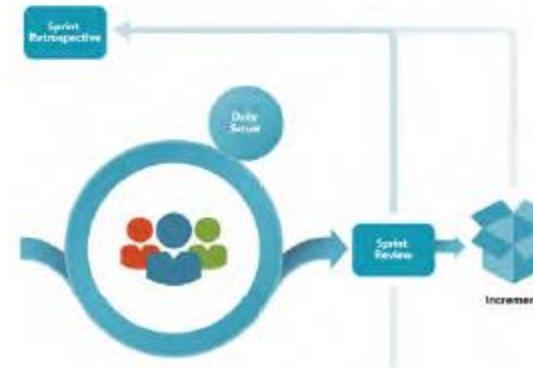
minutes

- Product Backlog is ordered by the \_\_\_\_\_, and is \_\_\_\_\_ throughout the Sprint.
- The \_\_\_\_\_ sets a Sprint Goal and the \_\_\_\_\_ forecasts the amount of work for the Sprint.
- The Sprint Backlog is the Development Team's plan on how best to meet the \_\_\_\_\_.



# Key Points for the Product Owner

- The Product Owner maximizes the \_\_\_\_\_ developed each Sprint
- The Sprint Review is where \_\_\_\_\_ can inspect the Increment and the Product Owner can adapt the \_\_\_\_\_ as needed.
- The Retrospective is the opportunity for the \_\_\_\_\_ to inspect and adapt \_\_\_\_\_.



# Judi Is in Trouble

## PURPOSE

Demonstrate accountability of Scrum roles

5

minutes

Your CEO has a friend in trouble. Judi is CEO of a community portal in San Francisco. The portal has over 20m subscribers, of whom about a million are always active.

The portal has not been updated with new functionality for over 5 months. Only news and data are updated.

There are five Product Managers, all vice presidents, responsible for advertising, dating, community, vacations, and classified functionality. They each receive commissions on the revenue from their respective portals.

**Question: He asks you for a recommendation for Judi to fix this.**

Product Manager	Product Owner	Team
<ul style="list-style-type: none"> <li>▶ Market/Customer facing. Identifies market needs. Collocated with marketing/business.</li> <li>▶ Owns vision and roadmaps, program backlog, pricing, licensing, ROI.</li> <li>▶ Drives PI objectives and release content via prioritized features and enablers.</li> <li>▶ Establishes feature acceptance criteria.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Solution, technology, and team facing. Collocated with team(s).</li> <li>▶ Contributes to vision and program backlog. Owns team backlog and implementation.</li> <li>▶ Defines iterations and stories. Accepts iteration increments.</li> <li>▶ Drives iteration goals and iteration content via prioritized stories.</li> <li>▶ Establishes story acceptance criteria, accepts stories into the baseline.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Customer/stakeholder facing.</li> <li>▶ Owns story estimates and implementation of value.</li> <li>▶ Contributes to intentional architecture. Owns emergent design.</li> <li>▶ Contributes to backlog refinement and creation of stories.</li> <li>▶ Integrates with other teams.</li> </ul>

© Scaled Agile, Inc.

Figure 1. Release content governance

# David Saves the Day

## PURPOSE

Demonstrate Scrum roles

5

minutes

The company is trained in Scrum. David, former Product Manager, is now Product Owner.

At Sprint Planning, David presents a Product Backlog different from what he and the Product Managers agreed on.

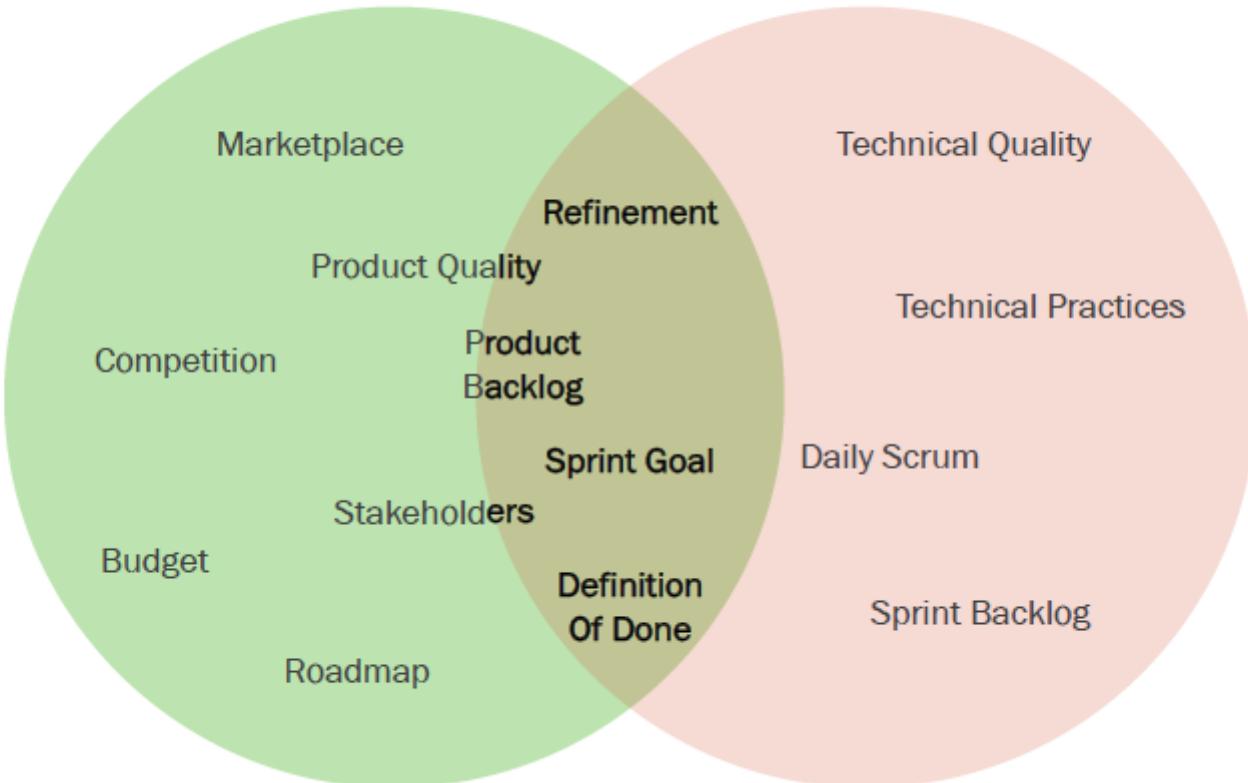
The Product Managers, attending the meeting, express their disagreement. After hours of bickering, they are nowhere.

**Question: What does Scrum call for?**

# The Product Owner / Development Team Relationship

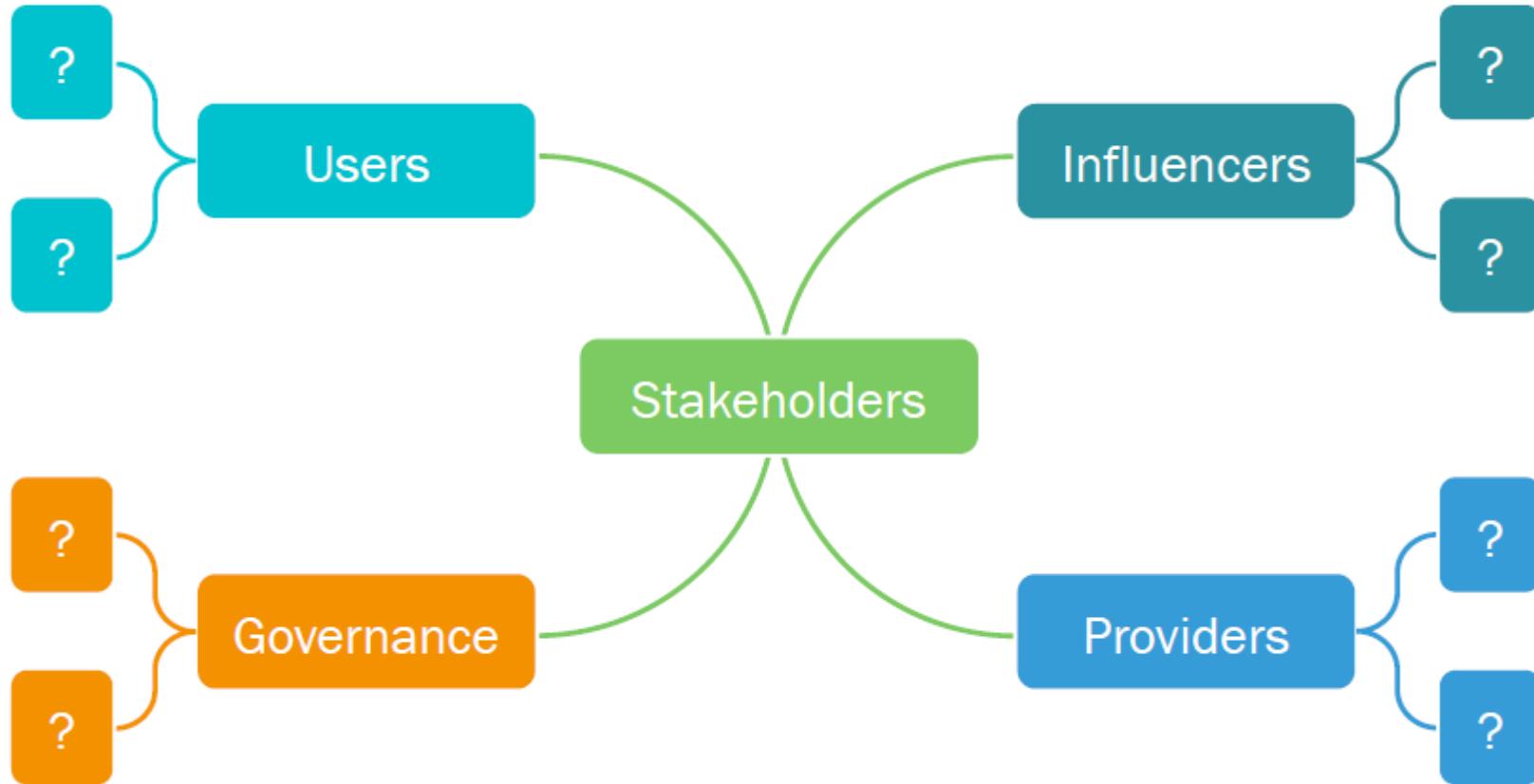


**Product  
Owner**



**Development  
Team**

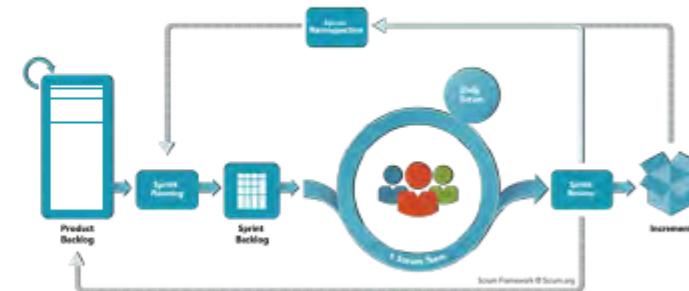
# Stakeholders – Who Are They and What Do They Want?



# What Is a Scrum Sprint?

Sprints are time-boxed iterations that serve iterative-incremental development.

- All development is done within a Sprint
- A Sprint has a constant duration of 1 month or less
  - Sprint length is determined by acceptable planning horizon
- Scrum knows no phases, only Sprints
  - No testing, hardening, analysis Sprints



## Sprint Goal

5

minutes



### Goal for Sprint 17:

Complete PBI 12, 17, 18 and 21  
by the end of the Sprint and fix  
bug #4711

Is this a good Sprint Goal?  
What are the attributes of a good Sprint  
Goal?

# Some Sprint Goals

Can we build the hazard warning line assistance with the new hardware sensor for our trucks?

Automatically clear a default insurance case using the new OCR system

Deliver a minimal set of administration features

Support customers that run MySQL

Increase find accuracy of misspelled search terms

# Sprint Goal

An **objective** to be met in the Sprint

- Through the implementation of the PBIs selected in Sprint Planning
- Providing guidance to the Development Team

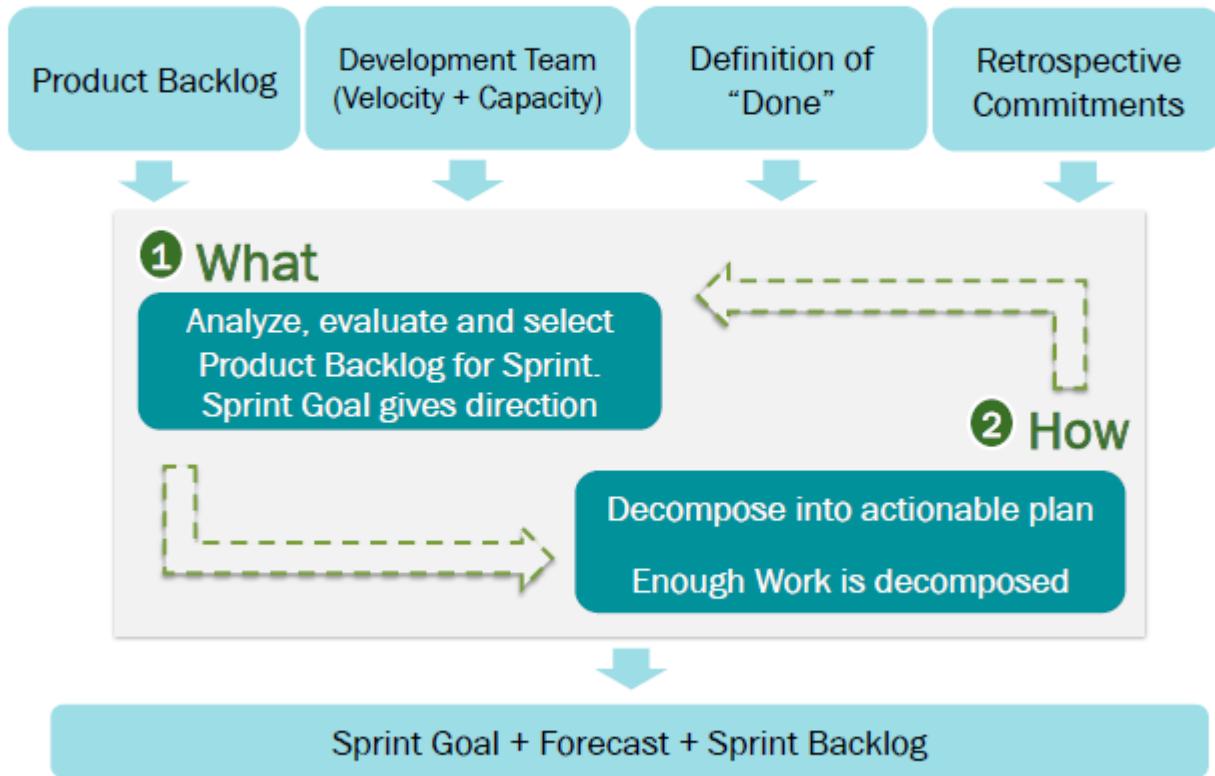
Allows **flexibility** in delivering the Increment

- Allows wiggle room for exact implementation of PBIs
- Although the Sprint Goal is fixed

Is **sacrosanct** throughout the Sprint

- As the Development Team works, it keeps this goal in mind
- Each Daily Scrum assesses the Team's progress toward meeting the Sprint Goal

# Sprint Planning Meeting Flow



## Product Owner and Sprint Backlog

5

minutes

During the Sprint, the Product Owner is nervous about the way the Development Team is working.

She believes that they are not focused on the Sprint Goal and would like to question the Development Team about their approach and possibly have them change their Sprint Backlog.

**Question: What is the Product Owner allowed to do?**

# Cancelling a Sprint

- Sprints may be cancelled early, i.e. before the time-box expires.
  - Only by the Product Owner
  - Prefer adjusting Sprint Scope
- A Sprint would be cancelled if the Sprint Goal becomes obsolete.
- Reasons to cancel may include changes in competition, business, or technology feasibility.
- After a Sprint cancellation, re-plan the Sprint.



I

# A Sprint Is a Feedback Loop

5

minutes

Connect the statements to the Scrum events.  
Cross out incorrect statements.

Inspect the Increment

The Product Owner informs  
the team of the Velocity  
required for the next Sprint

Figure out how to make the  
next Sprint more enjoyable

The Scrum Team inspects  
itself

Inspect Product Backlog and  
likely completion dates

Adapting the Definition of  
Done to increase product  
quality

Sprint Review

Sprint  
Retrospective

A demo to promote the  
product to the stakeholders

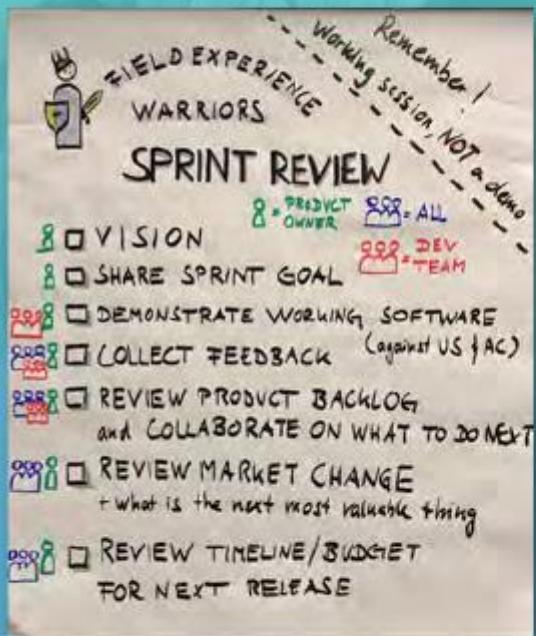
Inspect how the Sprint went  
with regards to people and  
relationships

Inspect marketplace changes  
and potential use of the  
product

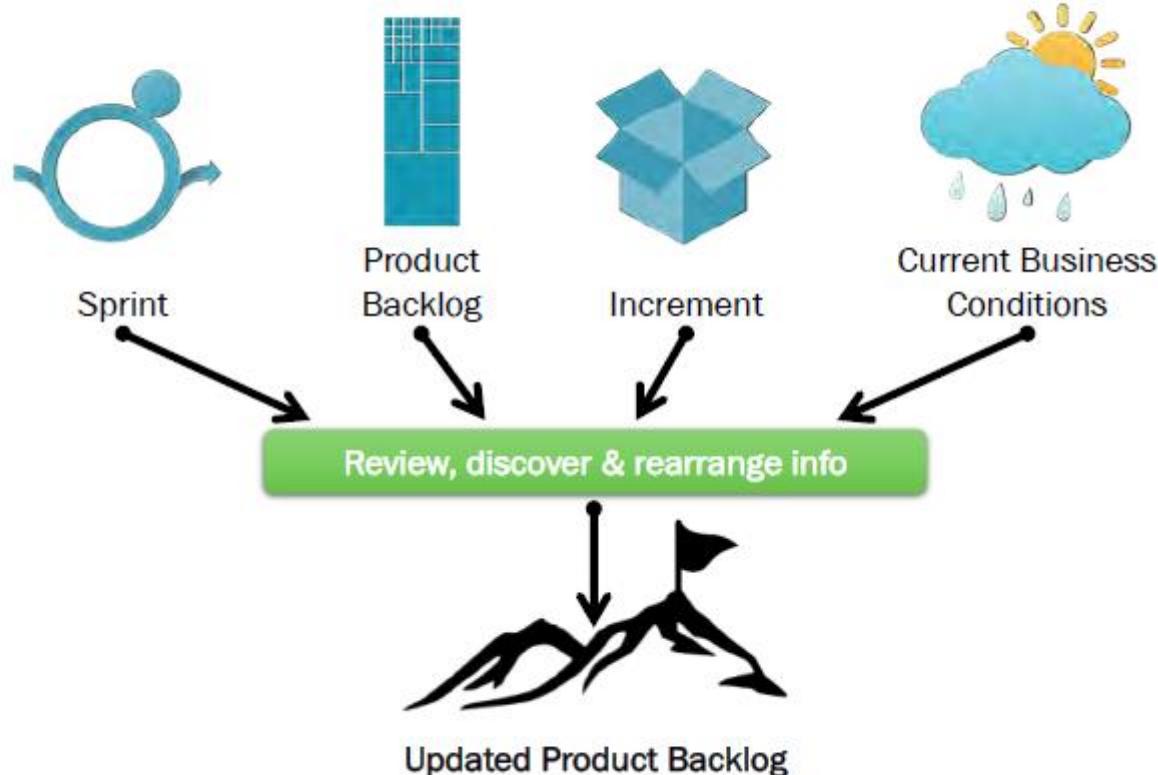
Adapt the Product Backlog

A status meeting for the  
steering committee

This is a collaborative working session, not a demonstration.



# Flow of the Sprint Review Meeting



## Exploring Done

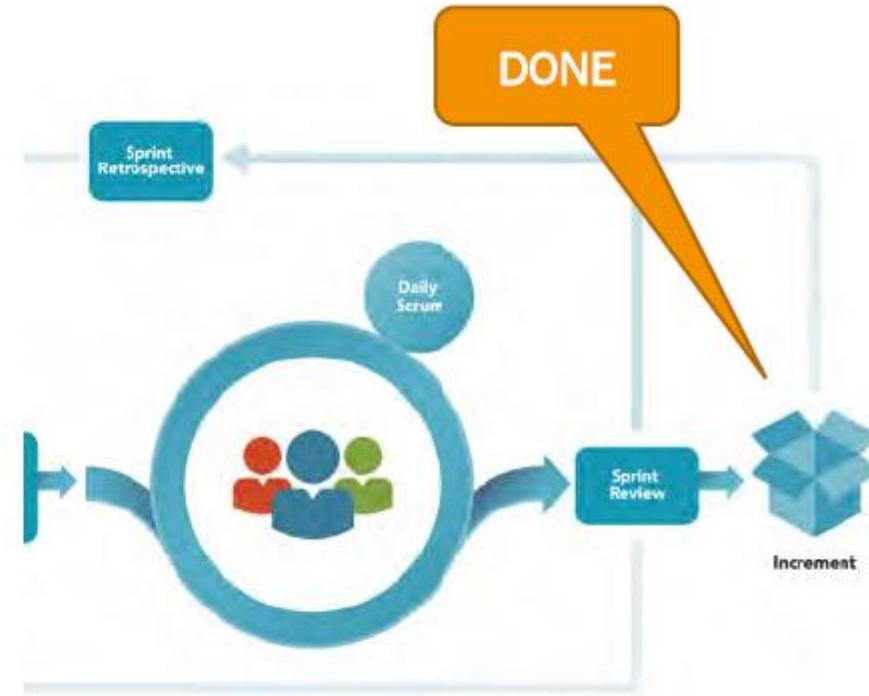
5

minutes

Why would the Product Owner care about the Definition of “Done”?

# Incremental Requires Transparency

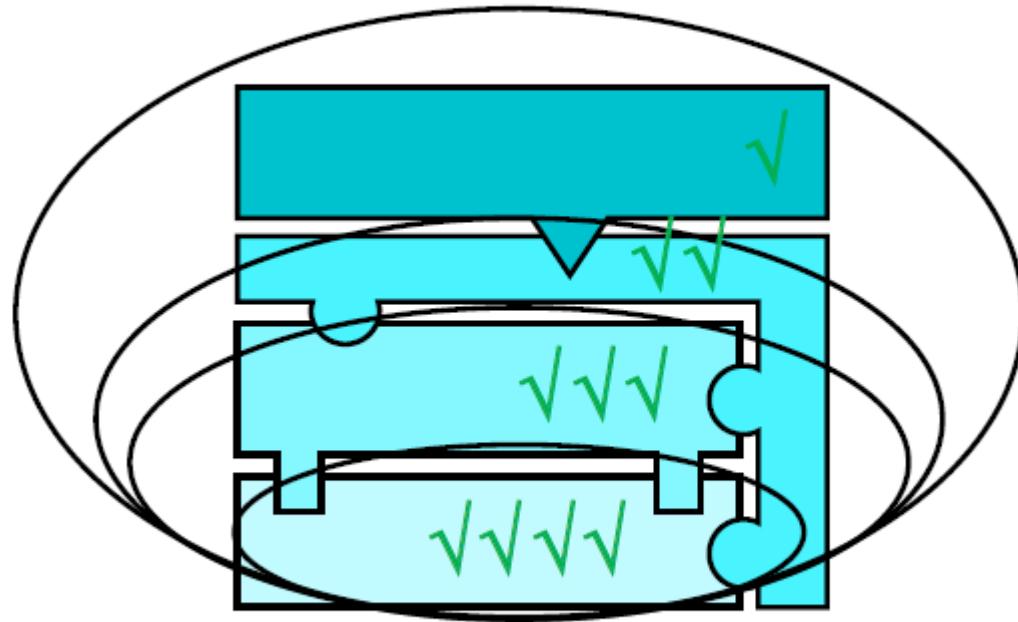
- Increment must be transparent to Product Owner and stakeholders
- Increment must be Done
- Increment must be potentially shippable, or usable by stakeholders
- Adhere to the Definition of Done



# Increment Grows Over Time Iteratively – Always Done



Incremental



Iterative & Incremental

# Sprint Retrospective



- Scrum Team inspects how the last Sprint went
  - People & Relationships
  - Process
  - Environment (tools)
  - Quality
- Scrum Team selects top actionable improvements to implement in next Sprint

# Can One Product Owner Possibly Do It All?

## PURPOSE

How to scale the Product Owner role

2

minutes

Joe is Product Owner for a successful web-based product. Joe attributes the success to spending much time meeting with local users to hear about their needs, and reviewing user logs that show how people are using the product.

Over the past 2 years the product has grown from a regional user base of around 1,000 users to 2 million users nationwide. But, usage is declining.

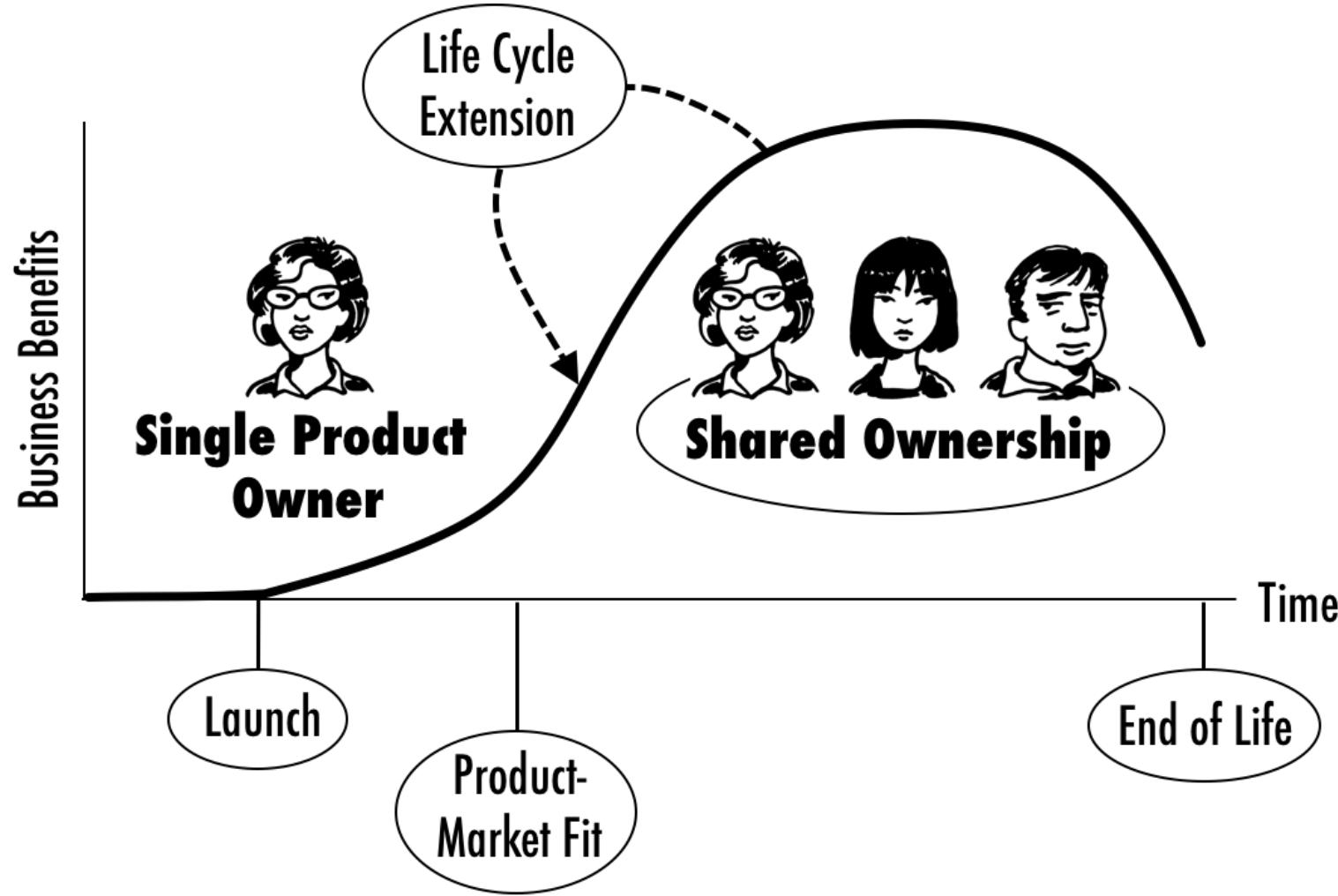
Joe considers hiring a Junior Product Owner for the team-facing activities like writing user stories and answering questions so he can keep reaching out to consumers directly to better identify user needs.

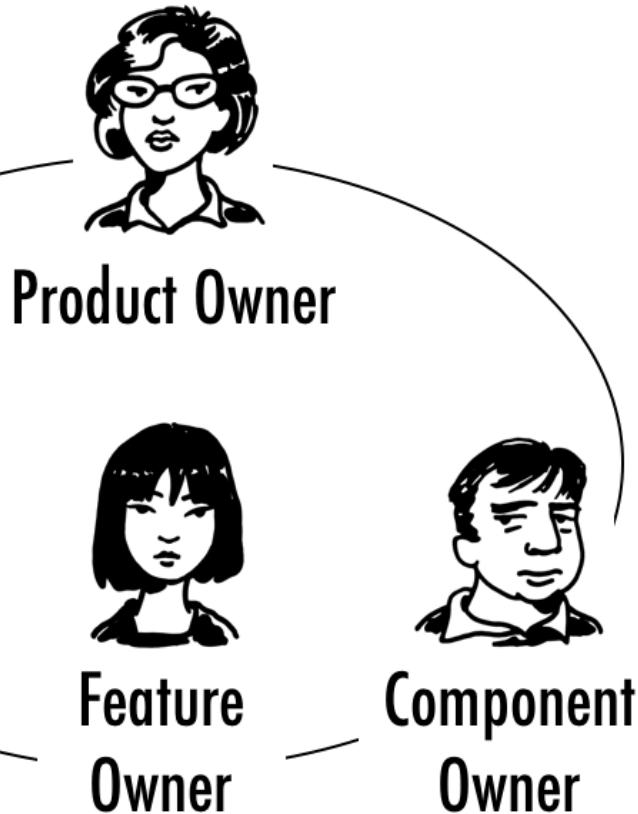
**Question: What problems do you see? What would you do?**

# One Product Owner Can Do It All, with Help and Thought

Job requirements remain largely the same, but method for fulfilling those requirements must evolve with the needs of the product.

- Establish a solid vision
- Empower the Development Team to help manage the Product Backlog
- Only get involved in specific decisions if team needs help
- Build the ability to do your work into the product so you can scale the product growth





## Overall product decisions

Product strategy, product roadmap, product backlog, stakeholder management

## Feature and component decisions

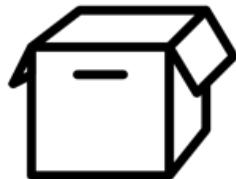
Describing, validating, and prioritising features and components; working with the dev teams



Product Owner



Product A



Product A

**Unbundle or  
Create Variants**



Product B



Product Owner



Product Owner



## Product Manager or Chief Product Owner

---

### **Strategic product decisions**

Product strategy, product roadmap,  
stakeholder management, financial  
forecast



## Product Owner

### **Tactical product decisions**

Product backlog management, epics  
and user stories, collaboration with the  
development team

# Examples of Building Abilities into the Product



Financial gateway for electronic payments. Each user has an allocation of points to “bid” on enhancements in the support forum.



Financial aggregator. Its customer service portal has discussion rooms for individual problems. Customers collaborate on solutions and share an electronic “mood” to indicate the status of the problem.

Office 2016 – Customer Feedback

# Product Owner Role

## Who cannot be a Product Owner?

- A committee

## What risks could emerge if the PO is a:

- Project Manager?
- Line Manager?
- Scrum Master?
- Development Team member?

# TAKE AWAY

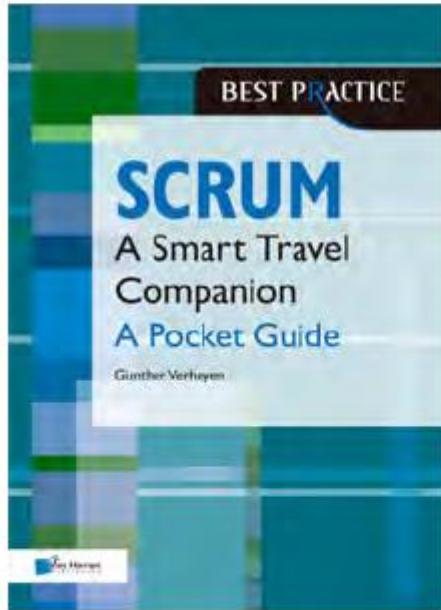
## The Scrum Product Owner

- Scrum enables empiricism for an agile business.
- A Sprint is a window of opportunity.
- The length of the Sprint controls risk
- Every Scrum role has clear accountability.
- The Product Owner is the value optimizer.

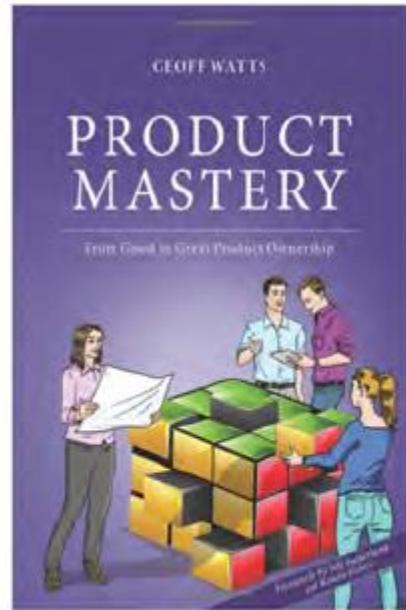


# Suggested Reading

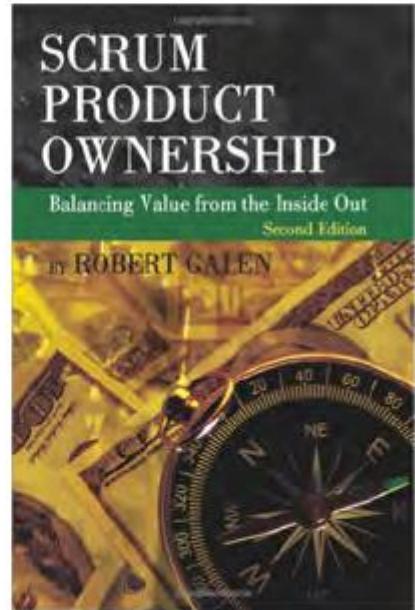
**"Scrum – A Pocket Guide"**  
(Gunther Verheyen)



**"Product Mastery"**  
(Geoff Watts)



**"Scrum Product Ownership"**  
(Robert Galen)



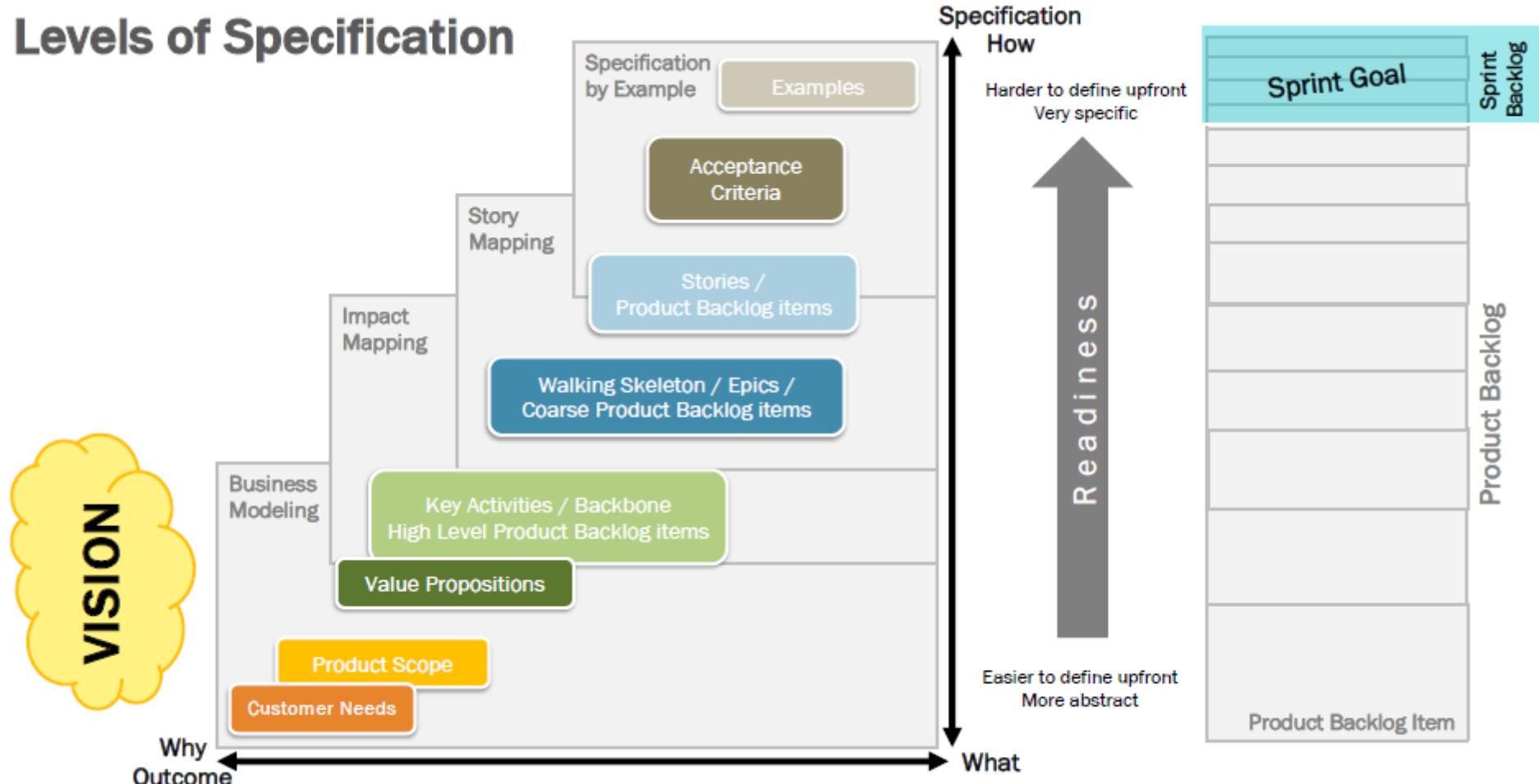


*"If you pick up a starving dog and make him prosperous, he will not bite you. This is the principle difference between a dog and a man."*

- Mark Twain

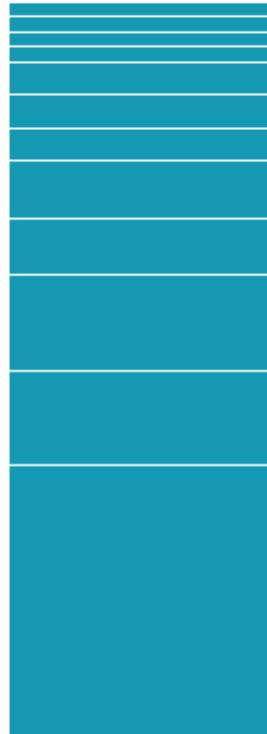
# Product Backlog Management

# Levels of Specification



# Characteristics of a Product Backlog

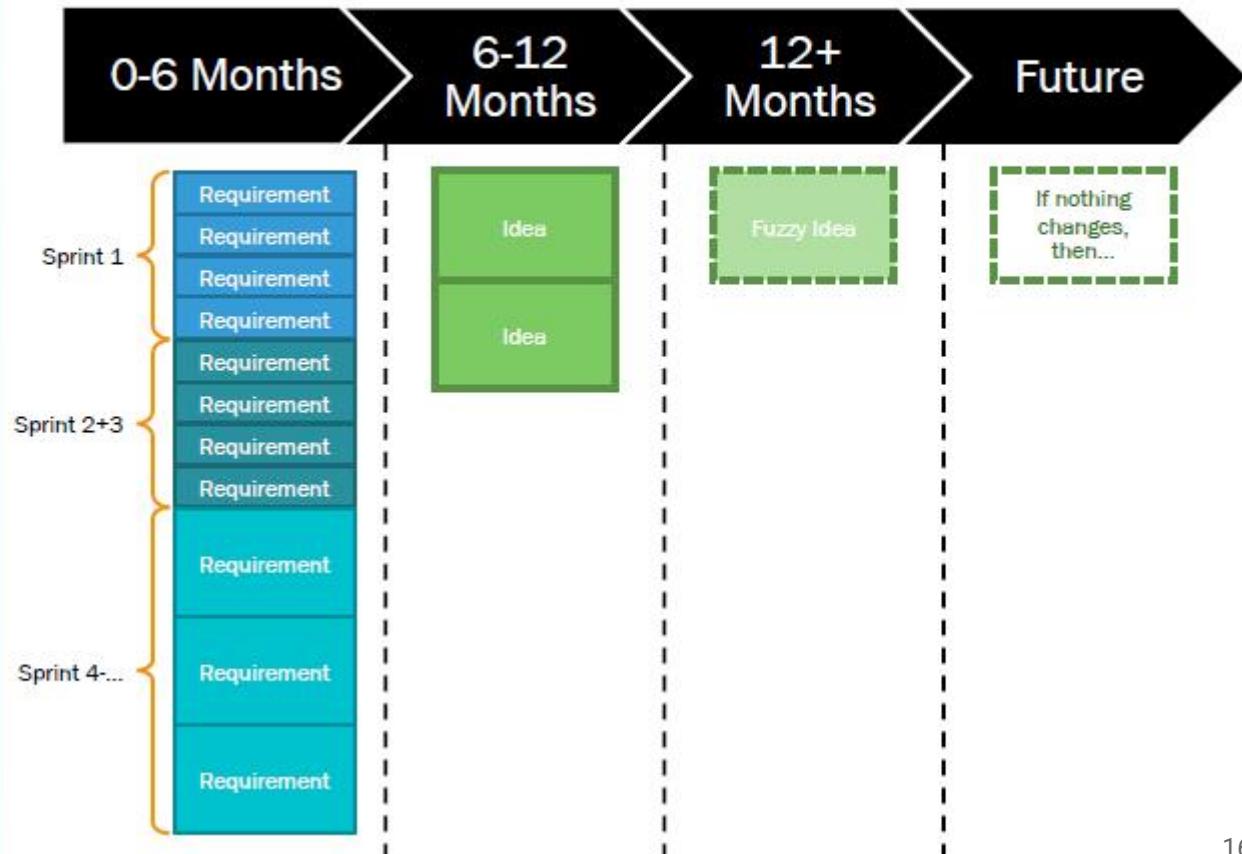
- Single source for valuable items to deliver
- Transparent to Scrum Team & Stakeholders
- Ordered based on value, dependencies, and risk
- Product Backlog items are estimated
- A vehicle for starting conversations
- May reference other artifacts like:
  - Specifications, Mockups, Architecture Models





Roadmaps enable sales, marketing and other project management domains.

## Use Product Backlog to Maintain a Roadmap



# Valid Product Backlog Items

Feature Requests

Non-Functional Requirements

Experiments

User Stories

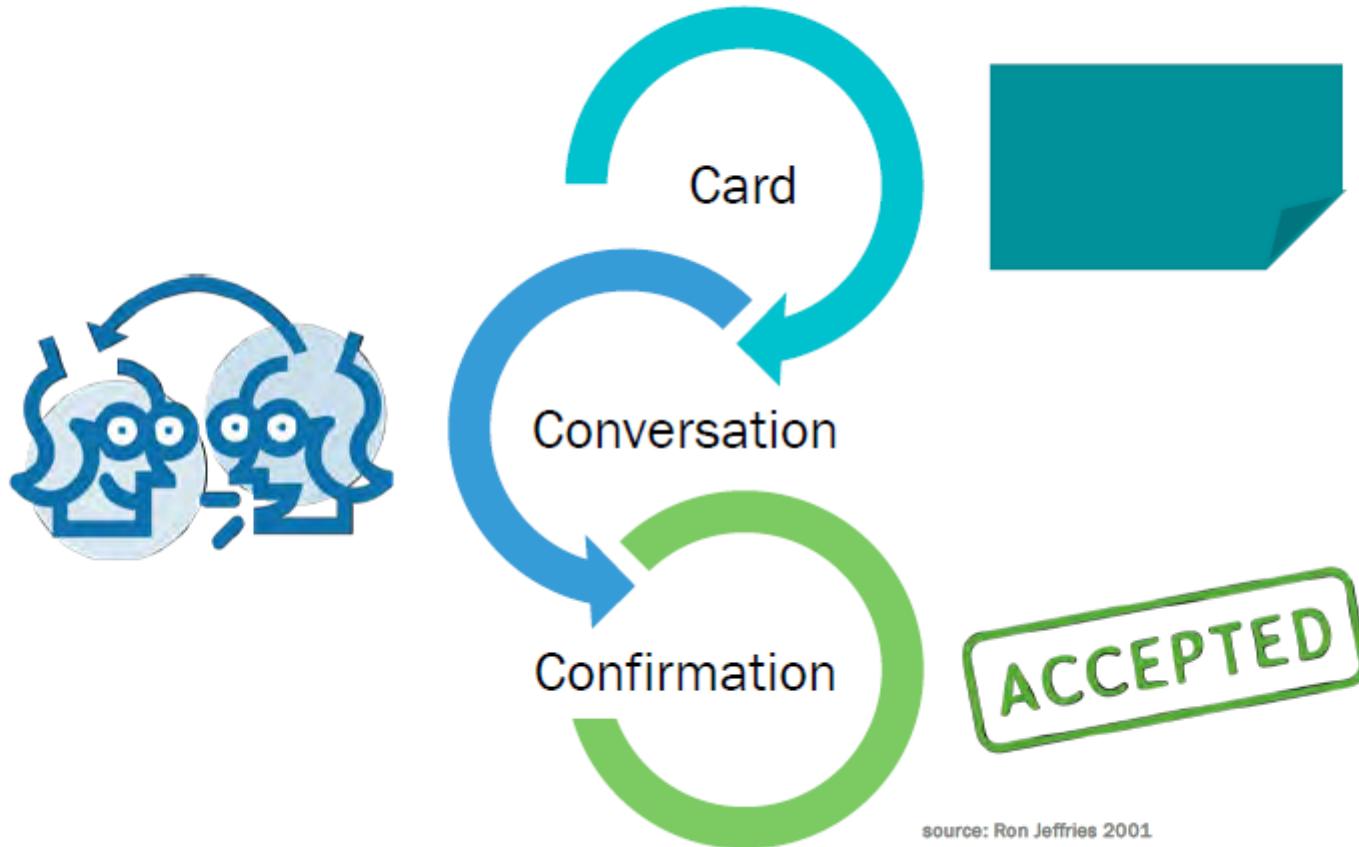
Bugs/Defects

Use Cases

Capabilities

...

# The Three C's of User Stories





# User Story

User Story is a promise for a conversation.

*It is more about the conversation than the User Story itself. The conversation provides the underlying reason for why something should be done.*

*The card is a reminder.*

# Popular User Story Template

**TITLE:** ...

**As a** ... [role, persona]

**I want** ... [behavior]

**So that** ... [why, the reason/value]

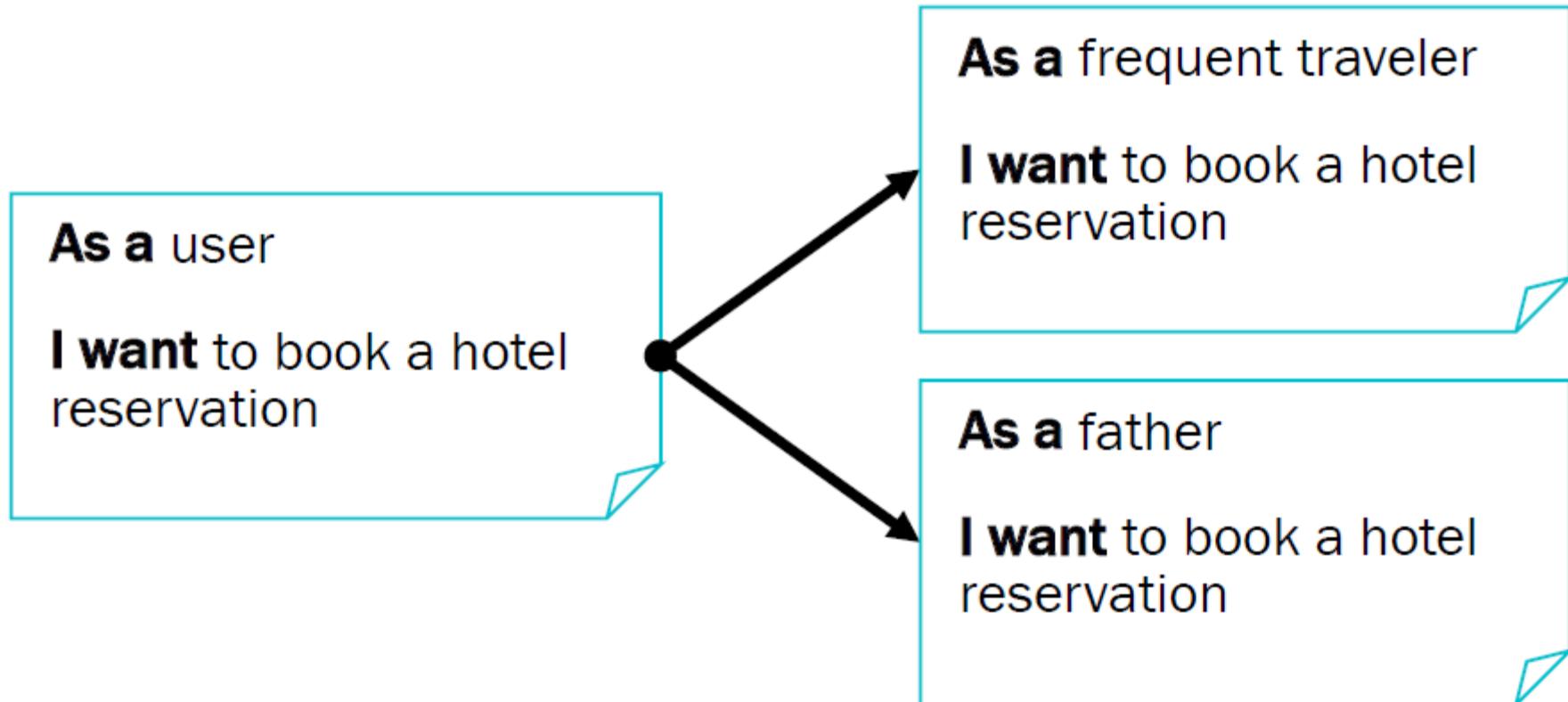
**TITLE:** Derive Racing Time

**As a** casual Runner

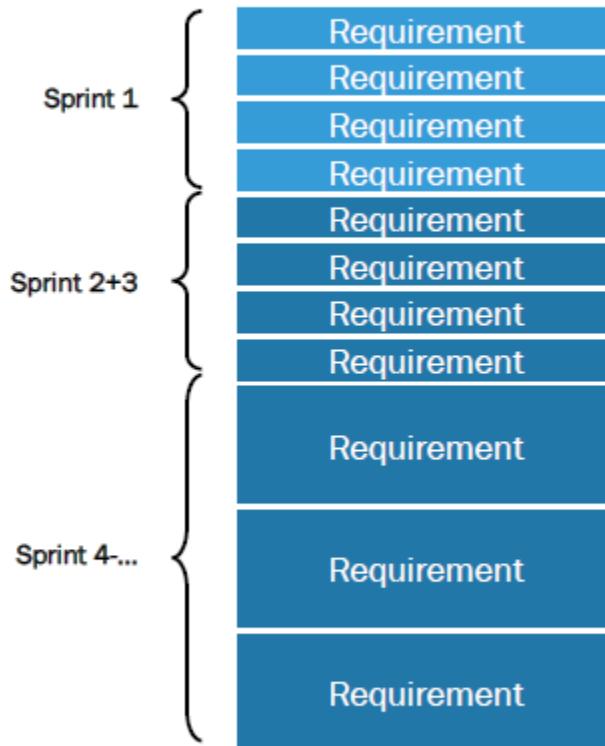
**I want** to be able to derive the race time for a new distance based on past times

**So that** I can better plan my training

# If Not Precise Enough, Split Them



# Upcoming Product Backlog Items Are Refined to Ready



- Top ordered PBIs are well understood and easily selected in Sprint Planning.
- Product Backlog is continuously refined to increase understanding, granularity and transparency.
- Refinement usually consumes no more than 10% of the capacity of the Development Team.
- Whether the PBIs are ‘Ready’ is determined by the Development Team.

# Acceptance Criteria

**TITLE:** Derive Racing Time

**As a** casual Runner

**I want** to be able to derive the race time for a new distance based on past times

**So that** I can better plan my training

## Acceptance Criteria

- Calculated time is rounded to next half or full minute for all distances of less than 1 hour racing time
- Calculated time is rounded to next minute for all distances of more than 1 hour racing time
- Time of calculation is < 1 second
- Maximal allowed distance is a Marathon
- Shortest allowed distance is 1km

# Specification by Example

## TITLE: Derive Racing Time

As a casual Runner

I want to be able to derive the race time for a new distance based on past times

So that I can better plan my training

### Examples

5 km	10 km	15 km	½ Marathon	Marathon
00:15.00	00:31.30	00:48.30	01:10.00	02:27.00
10 km	10 km	15 km	½ Marathon	Marathon
00:30.00	01:03.00	01:37.00	02:20.00	04:53.00
00:35.00	00:35.00	00:54.30	01:19.00	02:45.00
00:50.00	00:50.00	01:18.00	01:52.00	03:55.00

### Error Examples

negative distance	-10km	E:negative
zero distance	0km	E:zero
too long distance	42.196km	E:toolong
too short distance	0.99km	E:tooshort

### Boundaries

ok distance upper	42.195km	ok
ok distance lower	1km	ok

## Acceptance Criteria

- Calculated time is rounded to next half or full minute for all distances of less than 1 hour racing time
- Calculated time is rounded to next minute for all distances of more than 1 hour racing time

on is < 1 second  
extrapolated distance is a



# Experiments: A/B Test and Technical Spike

## **TITLE:** Upfront Postage increases Sale

Determine if showing the postage for each preselected catalog item increases sales compared to only showing the total postage on the order confirmation page.

## **TITLE:** Does library XYZ meet our needs

Implement library XYZ as a proof of concept to see if it:

- has Right data precision
- it meets our performance requirements
- is threadsafe

## Retrospective – “Stakeholders Need More Information”

5

minutes



Executives and other stakeholders are having problems understanding the vision of your product, or even its next release, given the state of your Product Backlog.

### What should we do to improve?



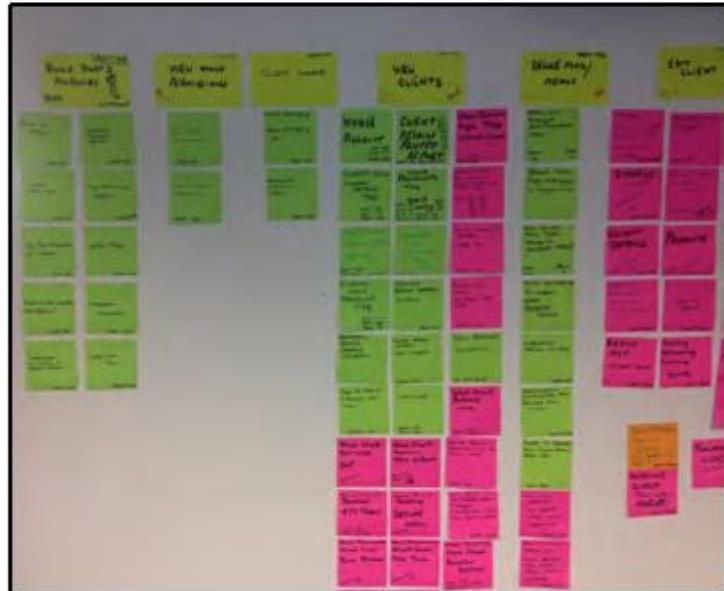
# Story Mapping

Product Backlogs are one-dimensional

- This makes it difficult to see the workflow, relationships, and dependencies

Story maps help visualize and plan upcoming work

- They foster collaboration by providing a different perspective



# Create a Product Backlog

15

minutes

Create a preliminary Product Backlog for your team's Product.

- Review both functional and non-functional items
- Create a card for each Product Backlog Item

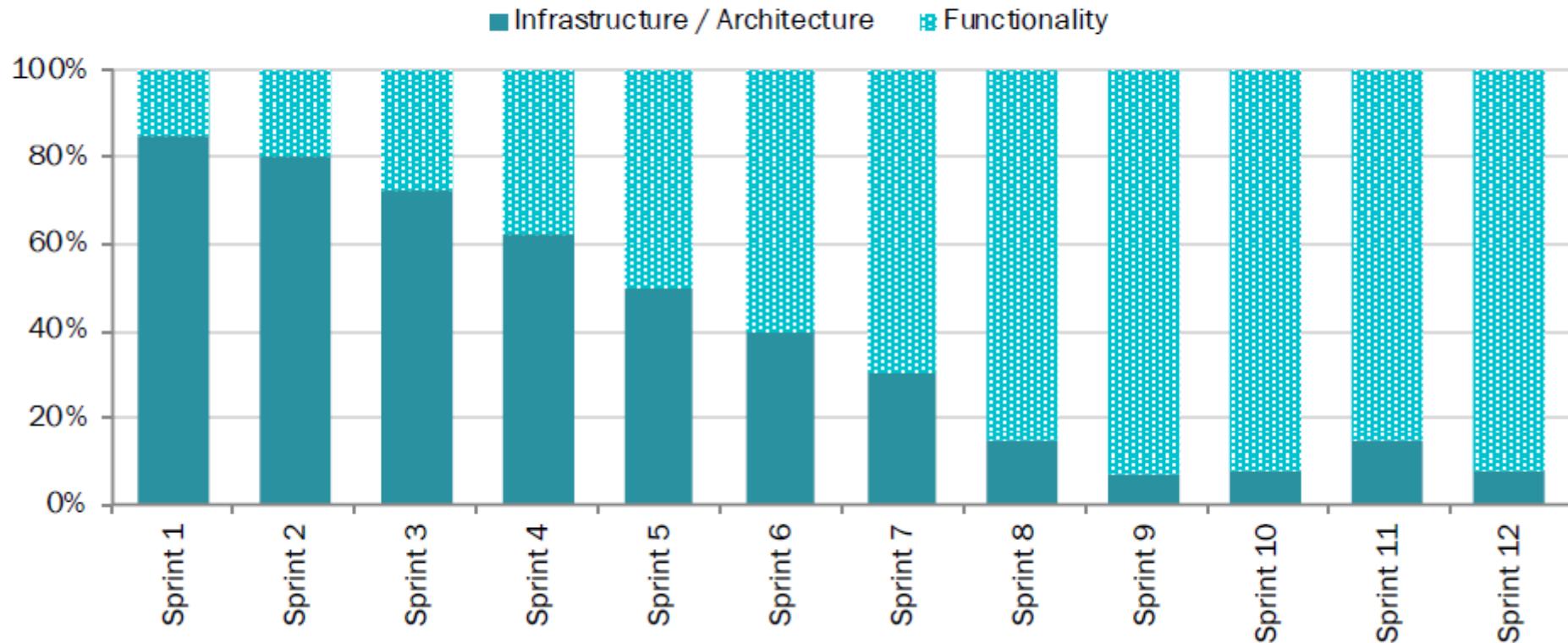
**Prepare to present your Product Backlog to the class.**

Do not strive for perfection, just do the best you can!

# Product Backlog Supports Emergent Architecture Development

- Architecture and infrastructure are high ordered non-functional requirements.
  - Or included in the Definition of “Done.”
- Every Sprint must still deliver at least some valuable business functionality.
  - To prove that architecture or infrastructure works
  - To prove to customer that work they care about is taking place
  - Basis for estimating

# Architecture Changes



# How Do You Prioritize Work?

5

minutes

Why is it important that the Product Backlog is always ordered?

- Discuss in your team how your company or product area prioritizes work?
- How do you resolve conflicts that occur when people think their “stuff” is more important than other people’s “stuff”?
- Do you quantify the results?
- How do you handle dependencies?

# Product Backlog Order Influenced by Many Factors

## Size

- Smaller
  - Less uncertainty
  - Re-orderable

## SIZE

Refine

Large

## VALUE

Low

High

Good

## Risk

- Feature
- Technical
- Dependencies
- Market Trends

## RISK

Do First

## Value

- ROI
- Existing Customers
- Prospects
- Cost of Delay

$$\frac{\text{Value} + \text{Risk}}{\text{Size}} \approx \text{Relative ROI}$$



# Techniques for Product Backlog Ordering & Value

## 500 Value Points

*Allocate points from a fixed total*

## Business Value Poker (aka Planning Poker)

*Assign relative value points (instead of size)*

## Buy a Feature

*Innovation Game using money*

## 20/20 Vision

*Innovation Game for simple ordering*

## Thirty Five

*Collaboration activity for ordering*

Have you used  
any others?

# Product Backlog Ordering

10  
minutes

Order your Product Backlog:

1. Select a technique for ordering by Value
2. Add value to each PBI card
3. Sort PBI cards

**Prepare to present your Product Backlog  
to the class.**



# Map Product Backlog Items to Value Proposition

1	2	3	5	8	13	21	Value Proposition	Metric
							NONE	

Product Backlog Item

**size**

This anticipated value is not addressed

# TAKE AWAY

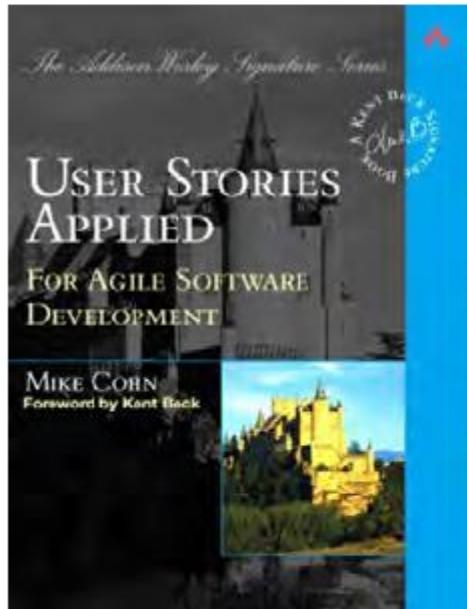
## Product Backlog Management

- Product Backlog holds all the work for the Product.
- Product Backlog gives transparency.
- Product Backlog is a living artifact.
- There are many techniques beyond Scrum to help create and order Product Backlogs.

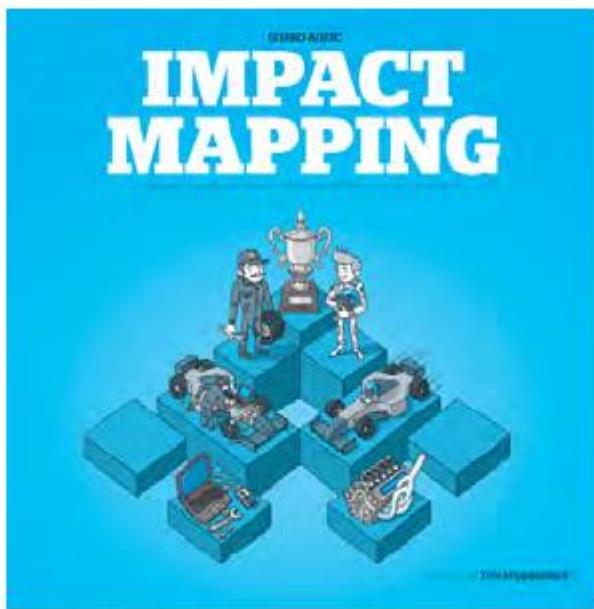


# Suggested Reading

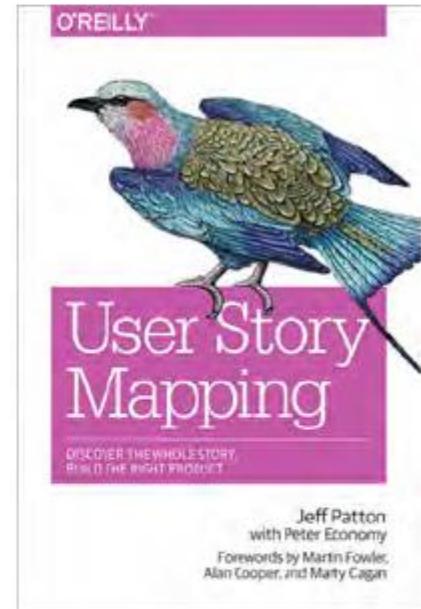
**"User Stories Applied"**  
(Mike Cohn)

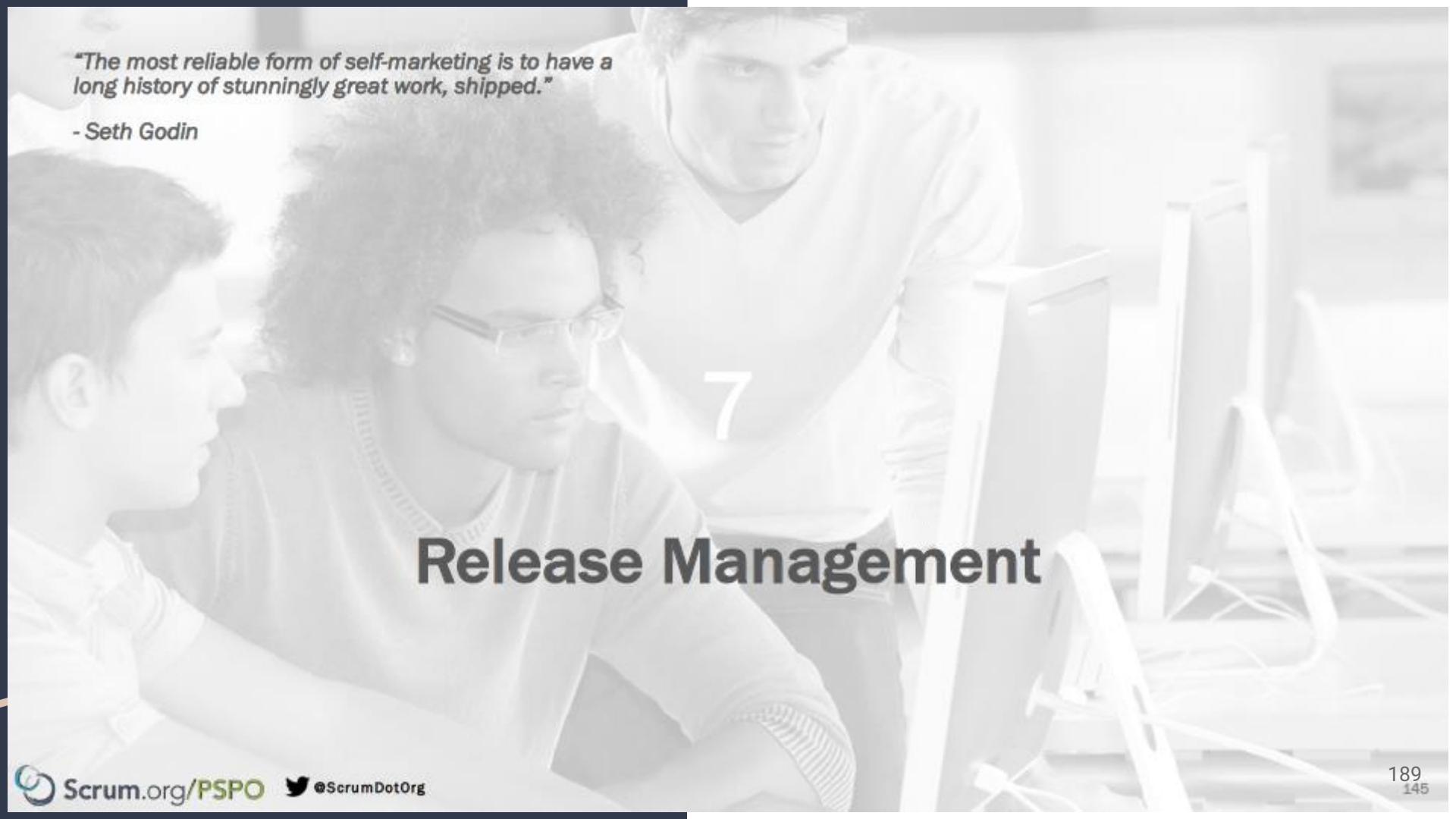


**"Impact Mapping"**  
(Gojko Adzic)



**"User Story Mapping"**  
(Jeff Patton)





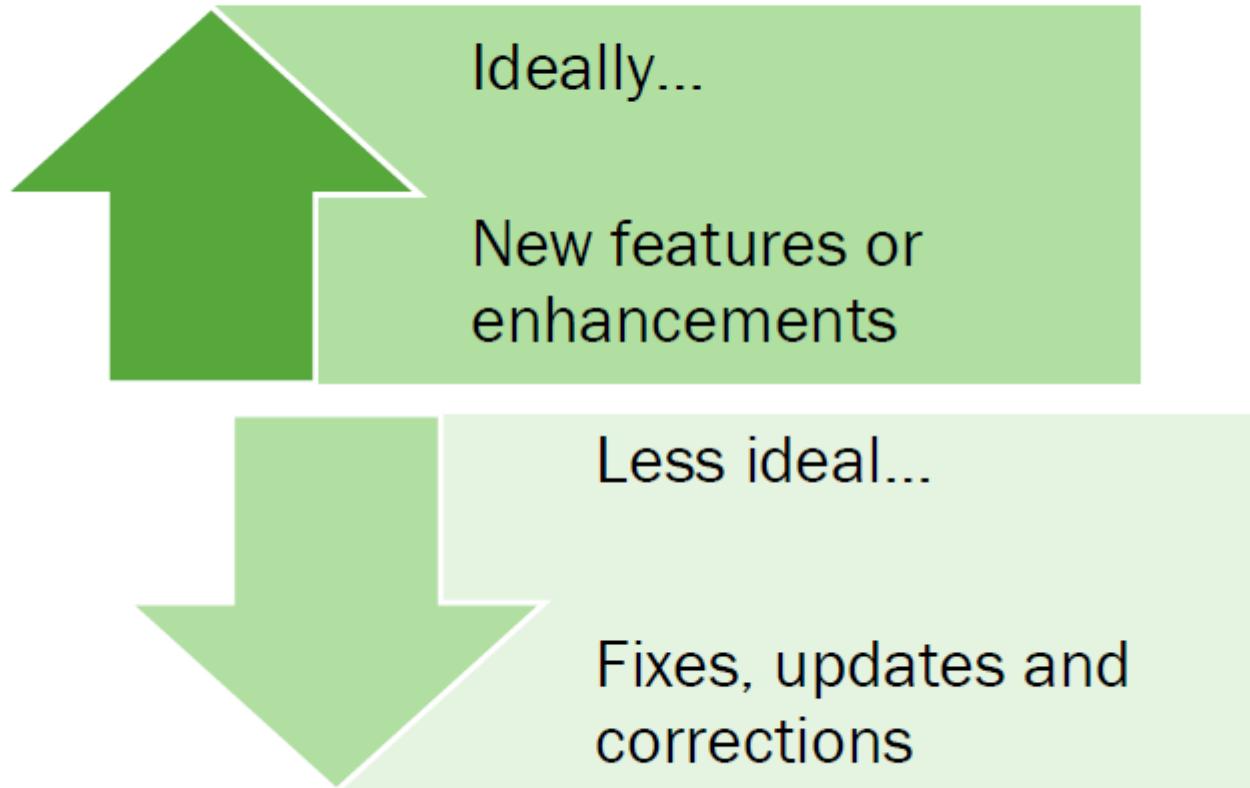
*"The most reliable form of self-marketing is to have a long history of stunningly great work, shipped."*

- Seth Godin

7

# Release Management

# A Release Serves to Actually Deliver Value



# Some Reasons Are Better Than Others (For Planned Releases)

Better

## Customer Request

- Something a customer requested that will create value for them

## Market Opportunity

- Changes that take advantage of an opportunity to gain market share or grow the market

## Required Release

- Made to comply with a legal requirement

## Commitments

- Meets agreement to deliver specific functionality to a customer, prospect, or partner

## Competitive Response

- Changes to ensure offering matches or exceeds competitors' capabilities

## Major Release

- Commitment to the market to release new features and/or fixes, driven by a certain schedule

## Maintenance

- Correction of defects

# Release Strategies

## MAJOR



- Many large changes
- Infrequent (often aligns with organization timelines)
- Freezes other work
- High customer absorption costs
- High business risk

## MINOR



- Broad changes
- Pre-scheduled (often aligns with Sprint boundaries)
- Often not cohesive
- Often bug fixes and patches
- Less business risk

## FUNCTIONAL



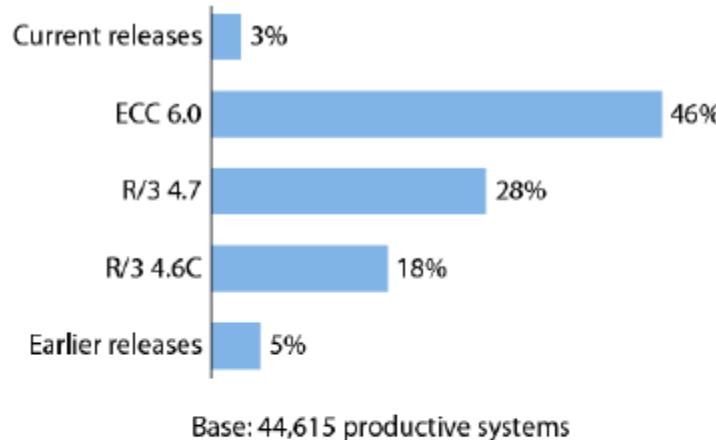
- Individual functionality
- Continuous delivery (often during a Sprint, even daily)
- Immediate value
- Low customer absorption costs
- Minimal/no business risk

*Different release processes involve different investment into testing*

# Customer Absorption Is One Constraint

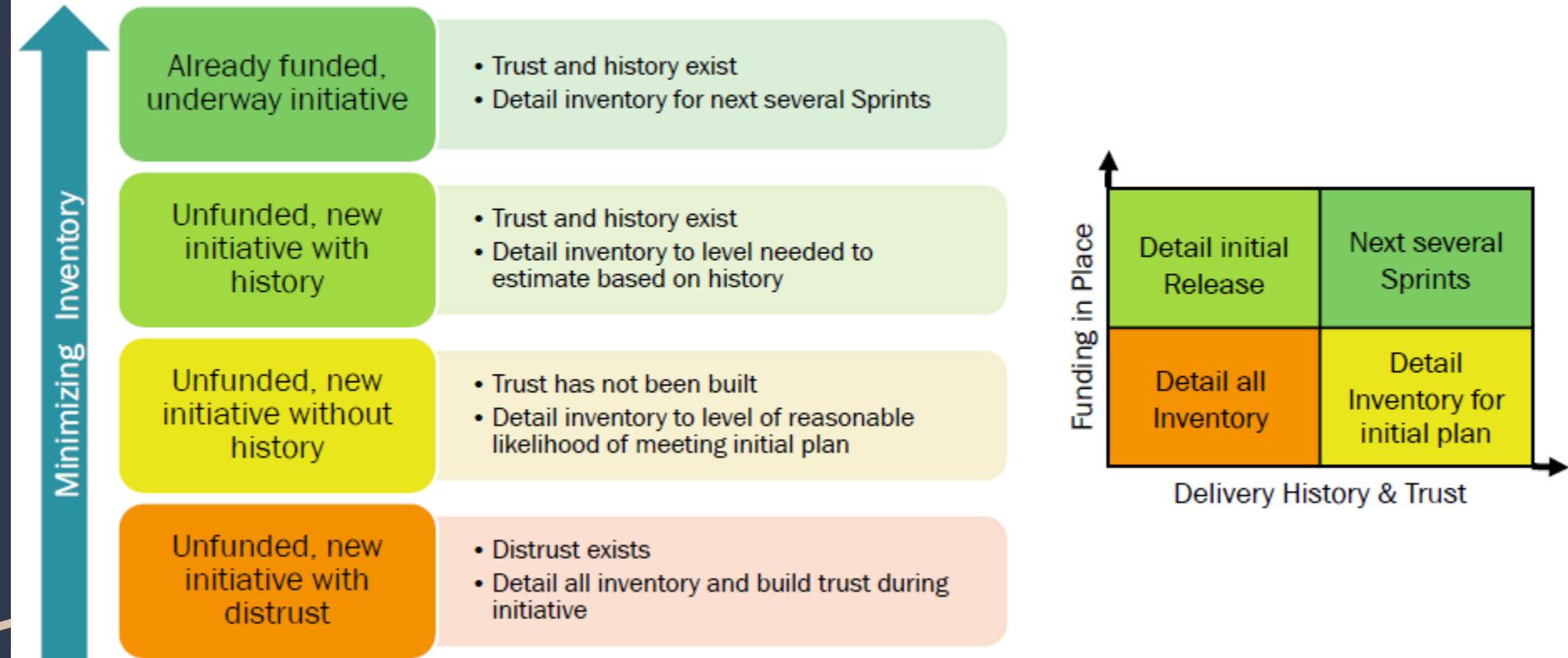
Customers can't necessarily use everything you give them. Focus on what it takes for them to get value from your product.

- Additional hardware
- Pilots
- Training
- Installation
- Data migration



Source: SAP SAPPHIRE NOW keynote by SAP Supervisory Board  
Chairman and co-founder Hasso Plattner, May 19, 2010

# Build Plan as Needed





# Techniques for Estimating Product Backlog Size

## Planning Poker

*Assign relative story points*

## T-Shirt Sizing

*Assign xs, s, m, l, xl, xxl sizes instead of points*

## Affinity Estimation

*Size PBIs by constantly comparing to others*

## Counting PBIs

*Assume PBI sizes will average out*

Have you used  
any others?

## Estimating Size

10  
minutes

Size your Product Backlog:

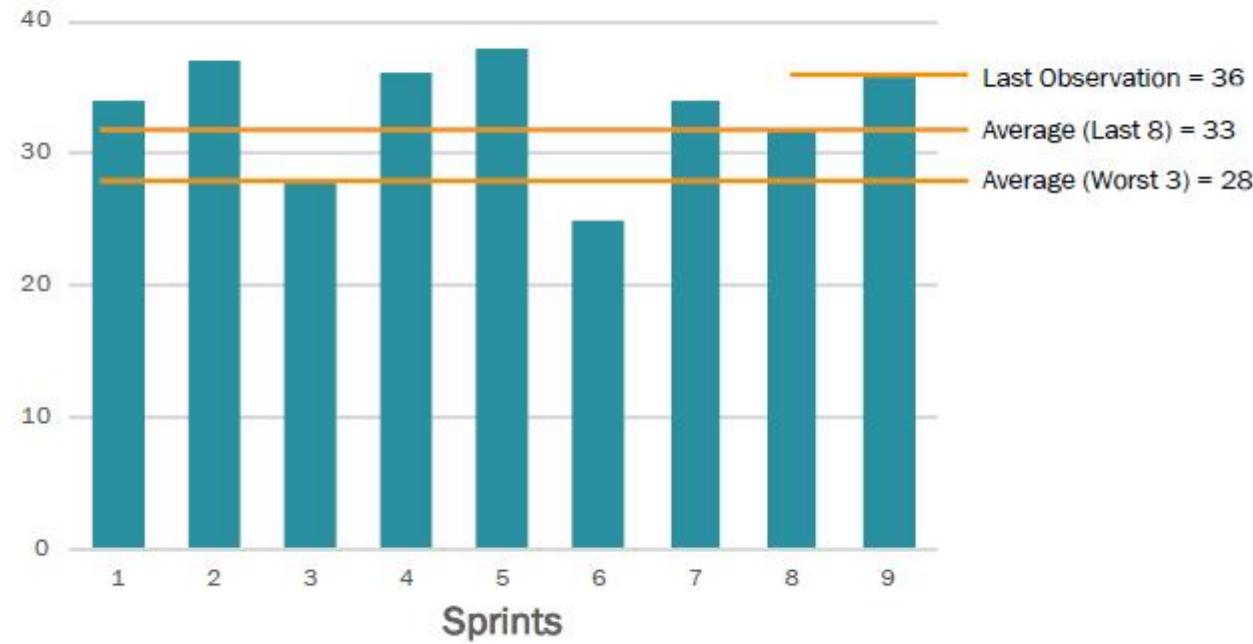
1. Select a technique for sizing
2. Write the relative size on the PBI
3. Total the estimated sizes

Prepare to present your Product Backlog to the class.

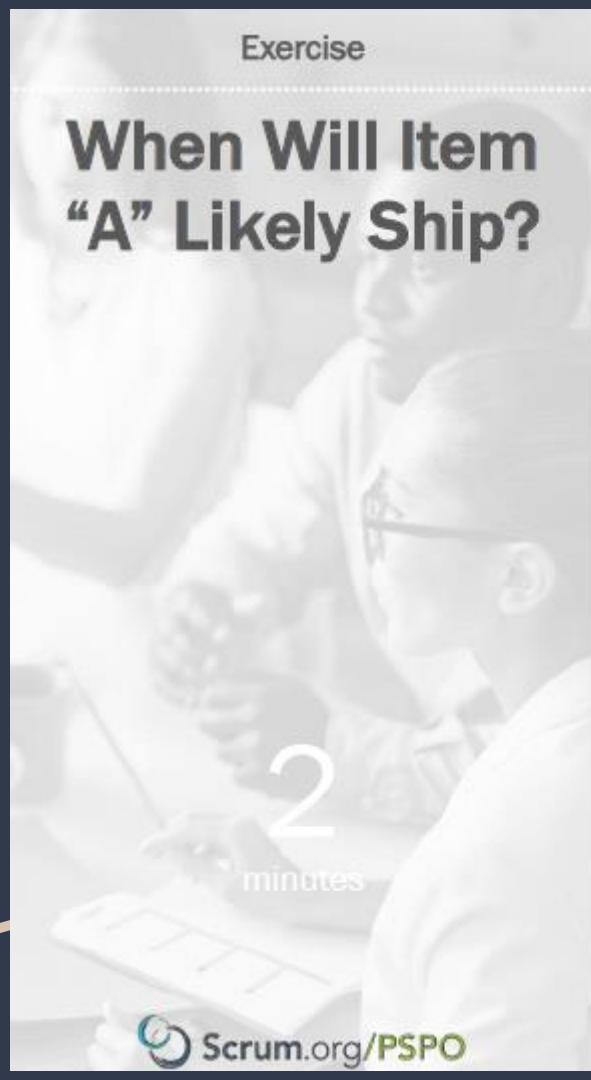


**Velocity is an indication of the ability to turn Product Backlog into shippable functionality across time, or for a specified price.**

## Velocity Is an Option to Measure Progress



# When Will Item "A" Likely Ship?

A grayscale photograph of a person wearing glasses and a white shirt, sitting at a desk and looking down at a laptop. A digital timer in the bottom right corner of the slide shows "2 minutes".

2  
minutes

At a Sprint Review one of the stakeholders wants to know when item A is likely to ship.

How would you deal with this question?

- Average Team Velocity = 33
- Sprint Length = 2 weeks



## PRODUCT BACKLOG

Size: 13
Size: 21
Size: 21
Size: 3
Size: 5
Size: 1
Size: 8
Size: 13
Size: 3
Size: 21
Size: 13

## What Is likely to Ship in 8 Weeks?

At a Sprint Review one of the stakeholders wants to know what is likely to ship in 8 weeks.

How would you deal with this question?

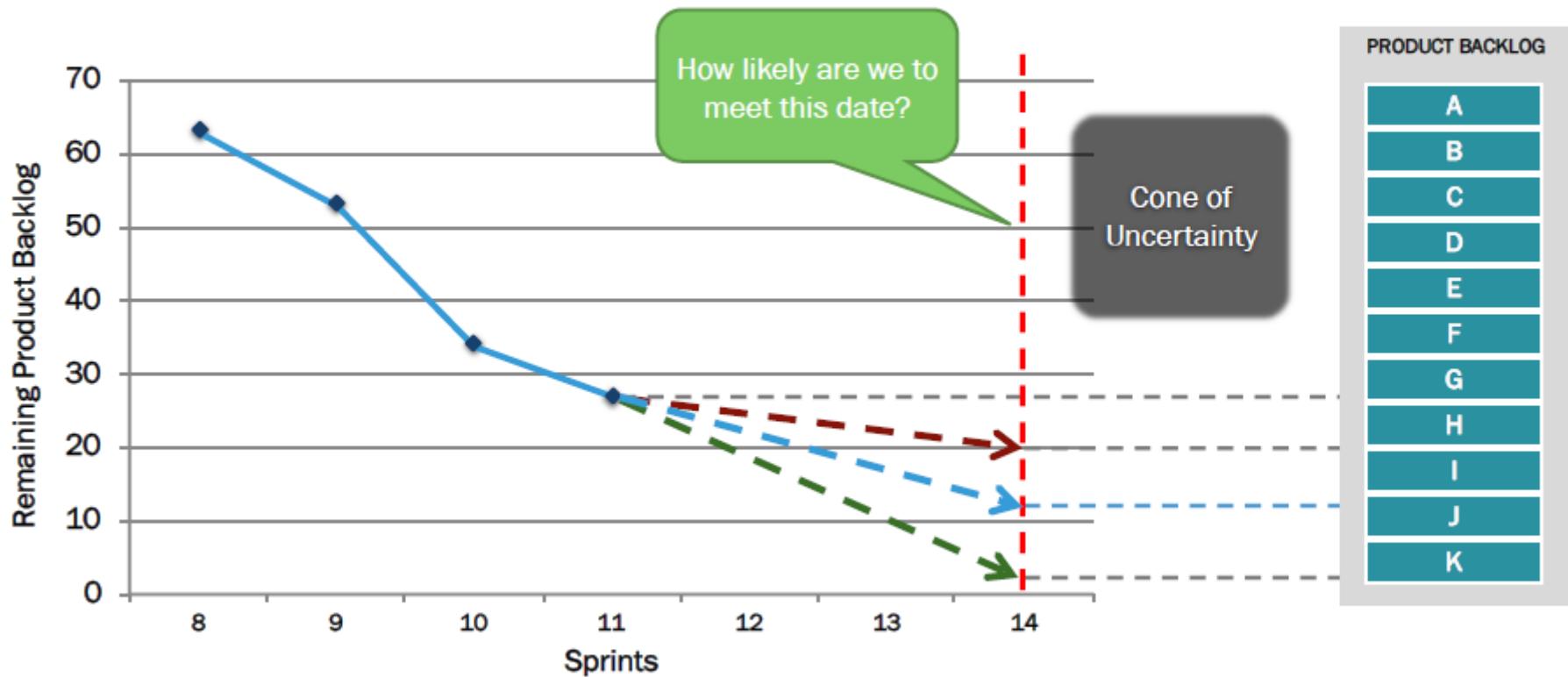
- Average Team Velocity = 18
- Sprint Length = 2 weeks

### PRODUCT BACKLOG

Size: 13
Size: 1
Size: 2
Size: 8
Size: 5
Size: 13
Size: 3
Size: 13
Size: 5
Size: 8
Size: 2

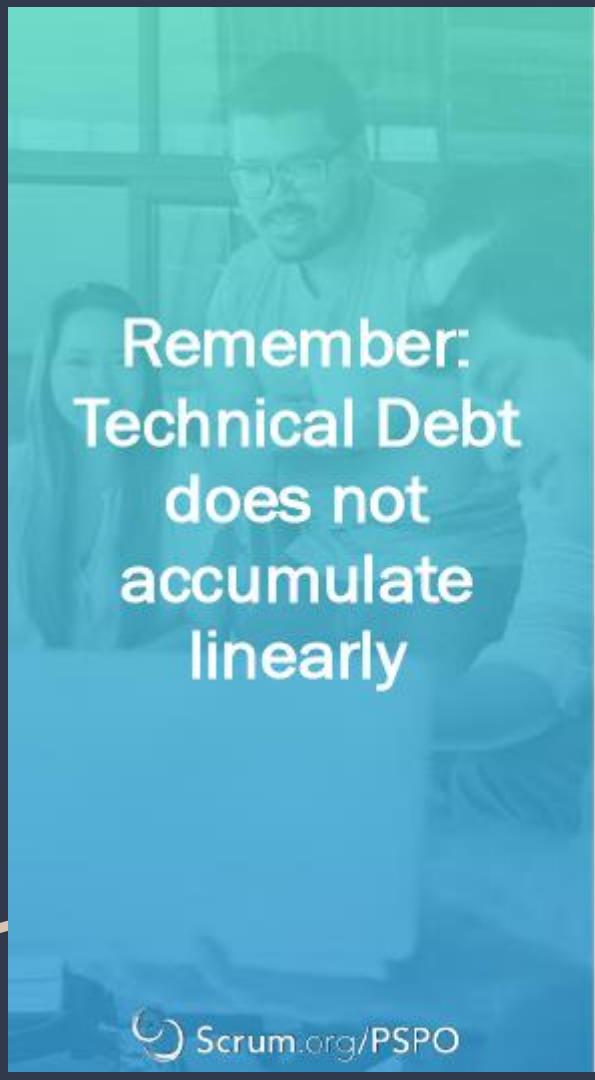


# Monitoring Progress and Uncertainty



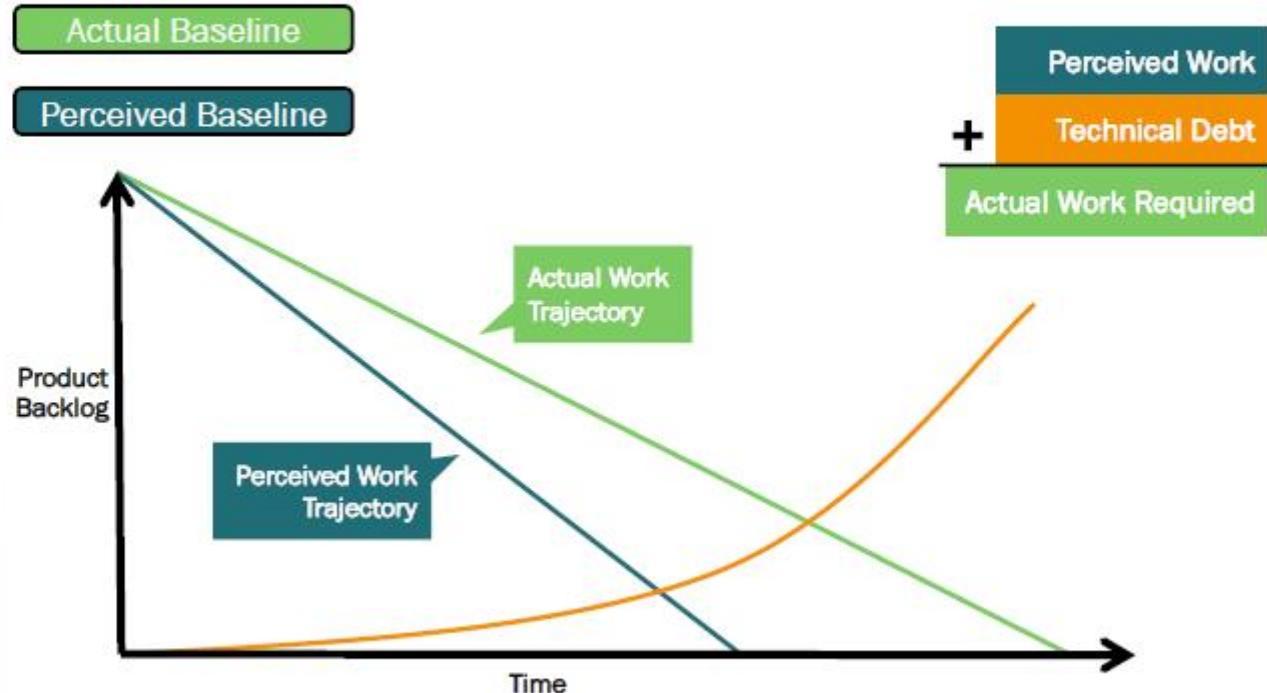
PRODUCT BACKLOG

A
B
C
D
E
F
G
H
I
J
K



**Remember:**  
Technical Debt  
does not  
accumulate  
linearly

## Technical Debt Uplifts the Work Baseline



## Technical Debt affect on future Value

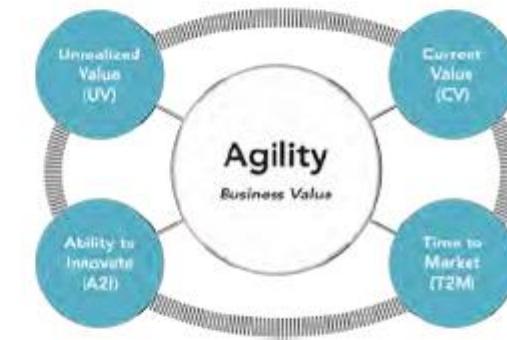
Understanding the long term  
impact of Technical Debt.

5

minutes

List the EBM value metrics that could  
be negatively affected by Technical Debt.

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Question: Is there ever a good reason to incur  
Technical Debt?

## Good Velocity

5

minutes

In your team, decide what is a desirable velocity.

What can you do for teams that don't have the velocity you want?

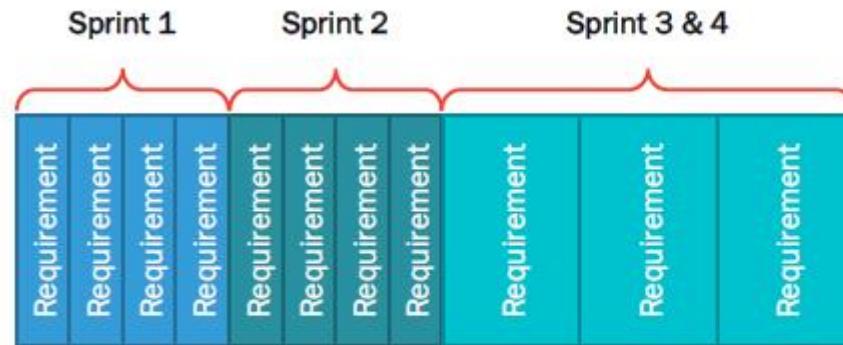
# Refinement

10  
minutes

Your team thinks they can deliver ~11 points in one Sprint (Velocity). Sprints are two weeks.

- Refine the PBIs of the two upcoming Sprints into PBIs with no greater relative size than **3 points**.
- Suggest a candidate **Sprint Goal** for Sprint 1.

**Present your Release Plan to the class.**



# TAKE AWAY

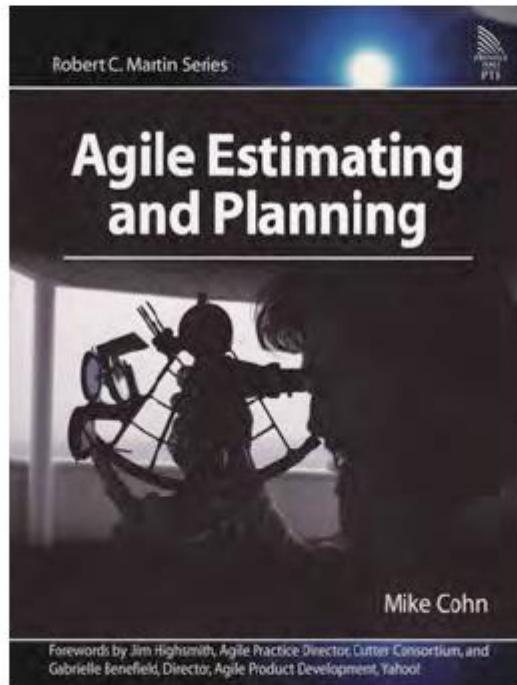
## Software Releases

- Product Backlog holds all information needed for forecasting, planning, and reporting.
- Increasing release frequency of new features or enhancements is a competitive advantage.
- There are many techniques beyond Scrum to help size Product Backlogs.



# Suggested Reading

“Agile Estimating and Planning” (Mike Cohn)



A black and white photograph of a diverse group of professionals in a meeting. They are gathered around a table, looking at a whiteboard and discussing cards. The scene is set in a modern office environment with large windows in the background.

*“Nothing focuses the mind like a noose.”*

- Mark Twain

# Closing

# Product Owner Skills

10  
minutes

List the skills and traits a Product Owner needs to be effective and successful.

SKILLS	TRAITS

## Three Things You Wanted to Know (Re-Visit)

- Did we cover what you absolutely wanted to know?
- Did we set some questions aside that we still need to go into?



## It's Your Call



I've had 2 great days of discovery about being a Professional Scrum Product Owner. But, when I go back to work I still have to deal with many old ways of working (dates, actuals, predictions).

**Identify 3 actionable ideas or improvements from this class you will try.**

# Inspect Your Knowledge – Feedback in 14 Days or Less!



Over the past 2 days, you have learned the importance of inspection, adaptation, and fast feedback cycles. To reinforce these concepts, if you attempt the Professional Scrum Product Owner I (PSPO I) certification assessment within 14 days and do not score at least 85%, you will be granted a 2<sup>nd</sup> attempt at no further cost.



- Test your basic knowledge of Scrum and learn from immediate feedback by taking an Open assessment:  
[www.scrum.org/assessments/open-assessments](http://www.scrum.org/assessments/open-assessments)
- Use the Open assessments to prepare for Level I assessments

# Thank You!