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Release Planning
How to land your important project safely

Host: Alex Brown
Presenter: Jeff Sutherland

scruminc.: Who We Are

Scrum Inc. is the Agile leadership company of Dr. Jeff Sutherland, co-creator of Scrum. We are based in Cambridge, MA.

We maintain the Scrum methodology by:
- Capturing and codifying evolving best practices,
- Conducting original research on organizational behavior
- Adapting the methodology to an ever-expanding set of industries, processes and business challenges

We also help companies achieve the full benefits of Scrum through our full suite of support services:
- Training (Scrum Master, Product Owner, Agile Leadership, webinars, etc.)
- Consulting (linking Scrum and business strategy, customizing Scrum)
- Coaching (hands-on support to Scrum teams)
- Publishing and new content development

We run our services company using Scrum as the primary management framework, making us a living laboratory on the cutting edge of "Enterprise Scrum"

Find out more at www.scruminc.com.

Agenda

- The traditional approach to release planning

- Release planning in Scrum, and how it lets you break the "Iron Triangle"

- Different approaches to release planning
  - Deadline-based release
  - Regular departure release
  - Value-based release

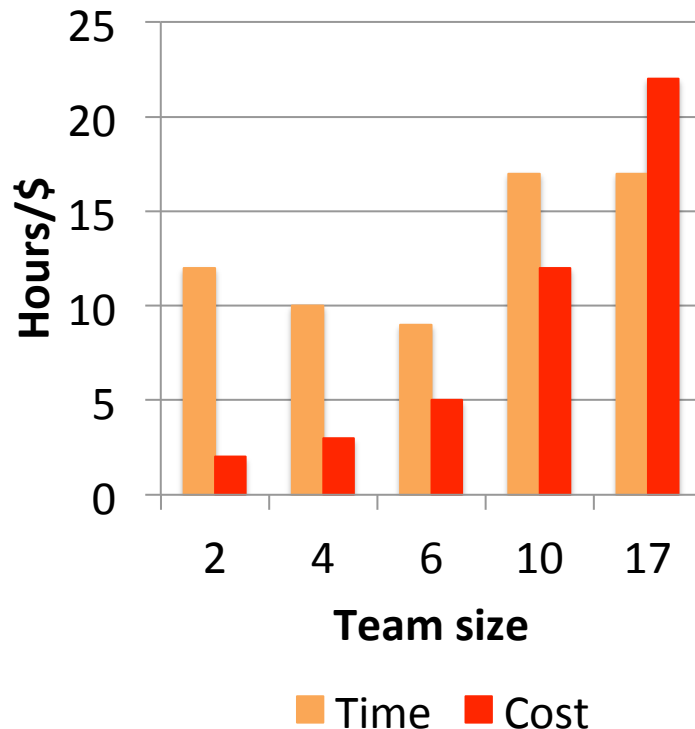- Pushing the limits – the potential of using release planning well

Traditional Release Planning
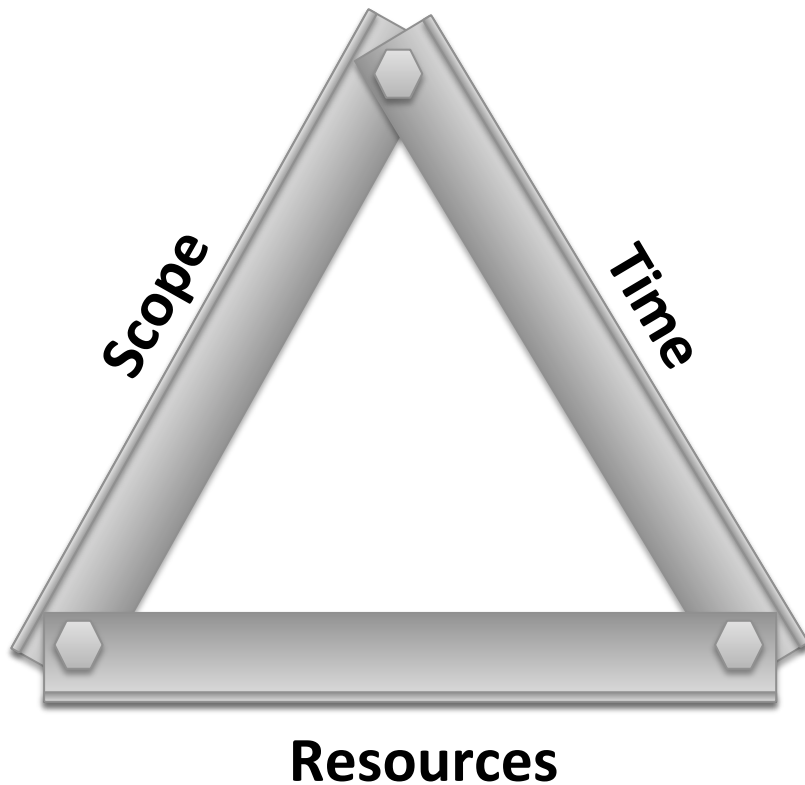
- Scope, Time and Resources are locked in a fixed relationship
  - Scope – the work that needs to be done
  - Time – how long you have
  - Resources – the number of people

- In theory, any one of these dimensions can be changed to meet release requirements…

- …However, in practice resources are seen as easiest to change
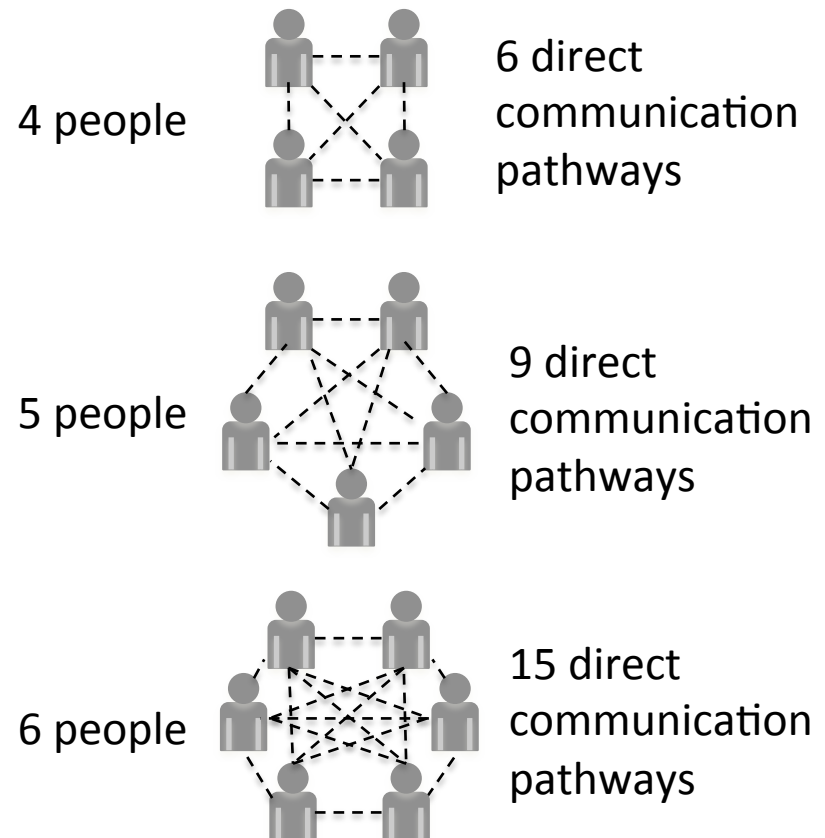 - Scope viewed as a fixed constraint
  - Time generally seen as fixed

Scope

Time

Resources

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But Adding People to Late Projects Only Makes them More Late!

| This is called "Brook's Law" | Caused by deteriorating team **communication saturation** |

Team size

Hours/$

■ Time ■ Cost

Source: http://www.qsm.com/process_01.html
(491 projects)

4 people — 6 direct communication pathways

5 people — 9 direct communication pathways

6 people — 15 direct communication pathways

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In Scrum, We Recognize that Not All Scope Is Created Equal

80% of value typically resides in 20% of features

65% of features provide little to no value, are rarely used and/or aren't actually desired by the customer

The rest are OK, but not as important

Value to Customer

50 · 38 · 25 · 13 · 0
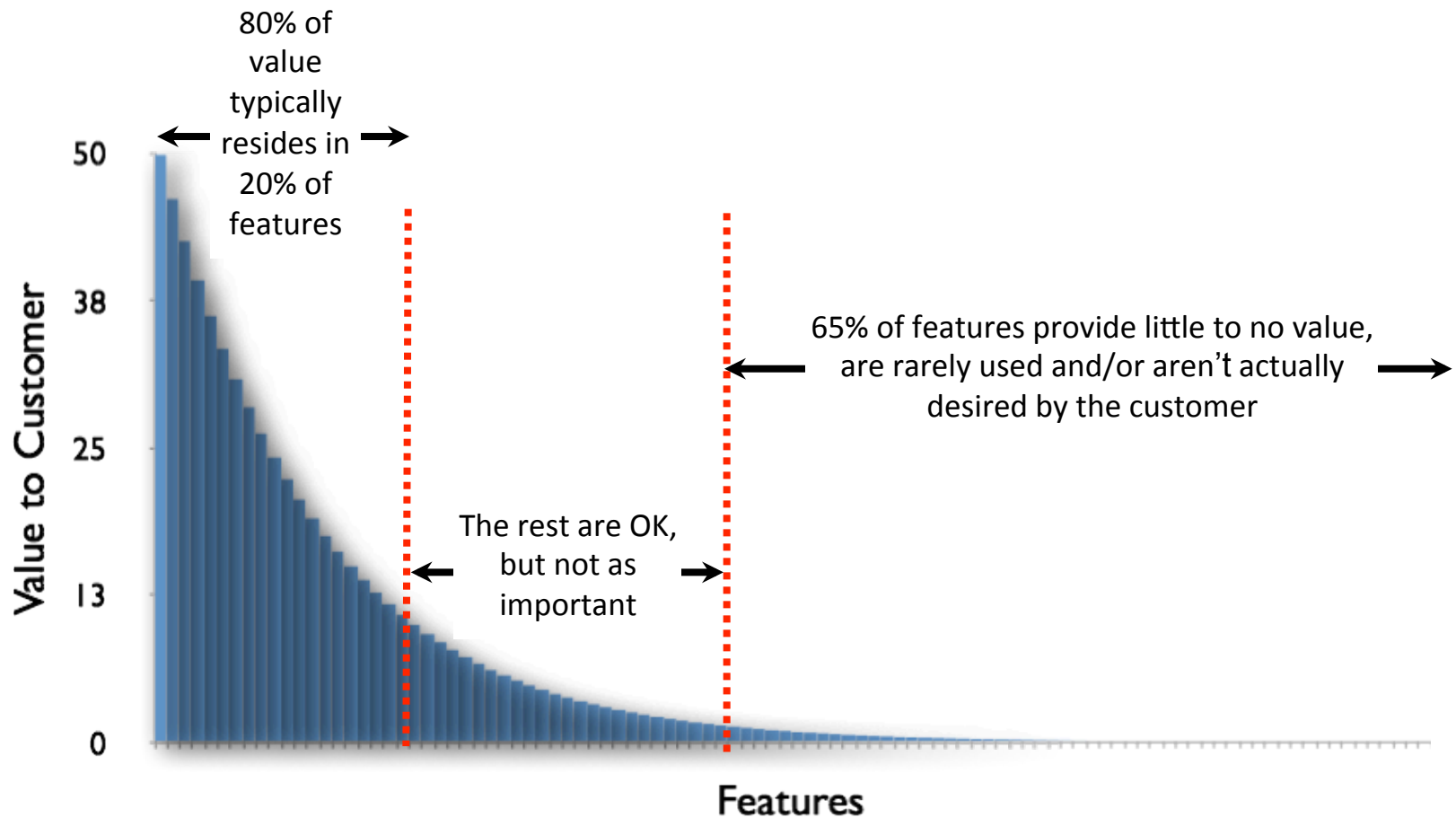
Features

Scrum Allows you to Break the Iron Triangle
Complete More Scope in Less Time with Fewer People

Scope

Time

Velocity
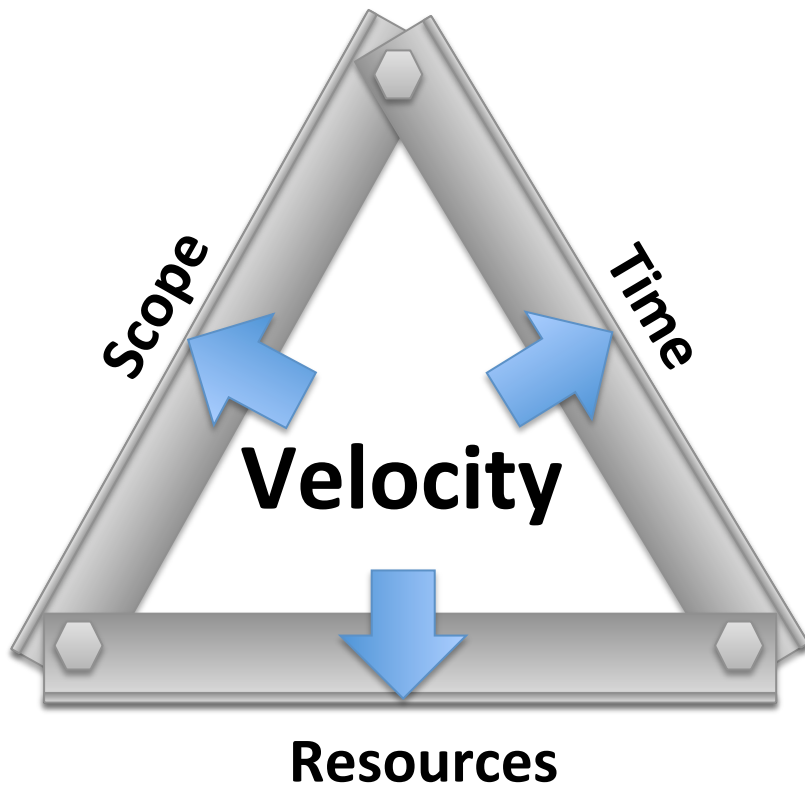
Resources

- Small & stable teams are key

- Flexing scope actually much easier than changing resources
  - Requires scope defined as independent features, and prioritized by value

- Increasing velocity allows team to get more done in the same time
  - Accomplished by removing impediments

As a bonus, product quality and team satisfaction also improve

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Elements of a Scrum Release Plan

1 Clear Vision
- Tied to concrete business value
- Aligns stakeholders
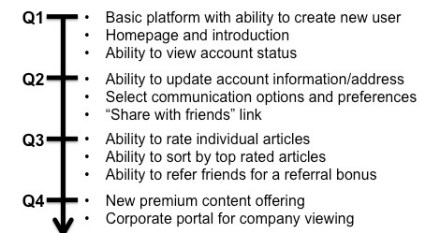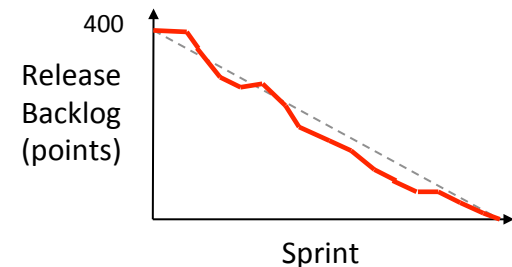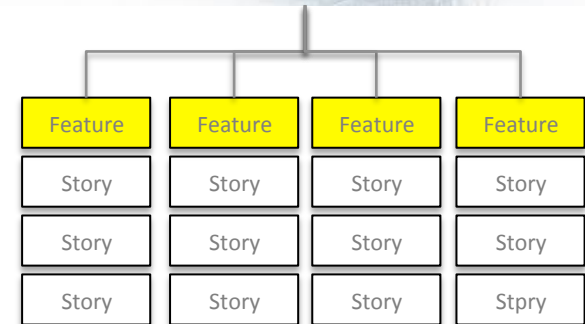
2 Vision decomposed into independent features
- Prioritized and estimated
- Explicit ROI considered

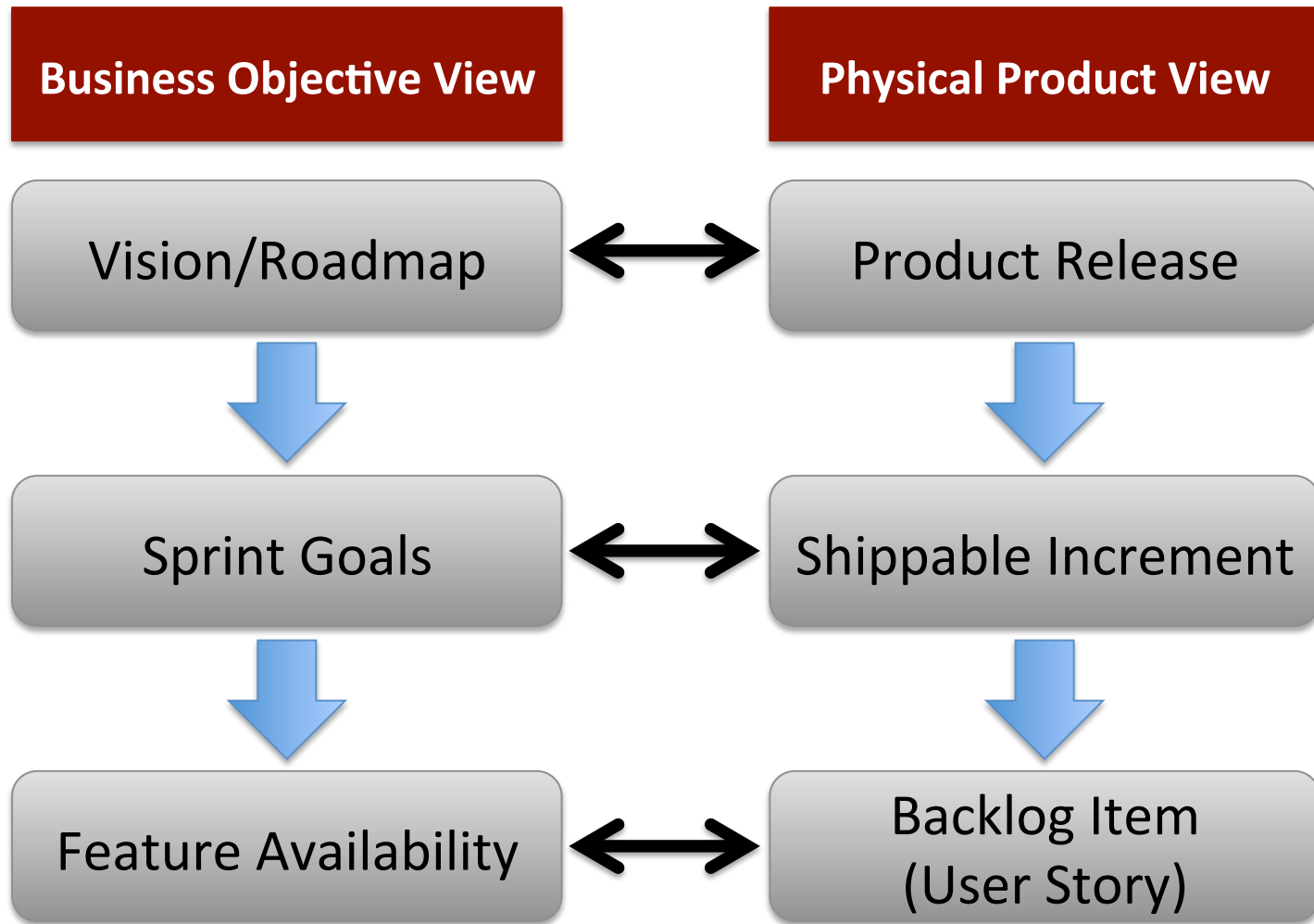**3** Burndown chart of progress on prioritized backlog items
- Measured in Points!

**4** Feature availability timeline
- Best guess – subject to change

Feature	Feature	Feature	Feature
Story	Story	Story	Story
Story	Story	Story	Story
Story	Story	Story	Stpry

400

Release Backlog (points)

Sprint

Q1
- Basic platform with ability to create new user
- Homepage and introduction
- Ability to view account status

Q2
- Ability to update account information/address
- Select communication options and preferences
- "Share with friends" link

Q3
- Ability to rate individual articles
- Ability to sort by top rated articles
- Ability to refer friends for a referral bonus

Q4
- New premium content offering
- Corporate portal for company viewing

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Release Plan Links Business and Physical Views

| Business Objective View		Physical Product View
Vision/Roadmap	⟷	Product Release
⬇		⬇
Sprint Goals	⟷	Shippable Increment
⬇		⬇
Feature Availability	⟷	Backlog Item (User Story)

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Vision Decomposed into Independent Features, then Actionable Backlog Items

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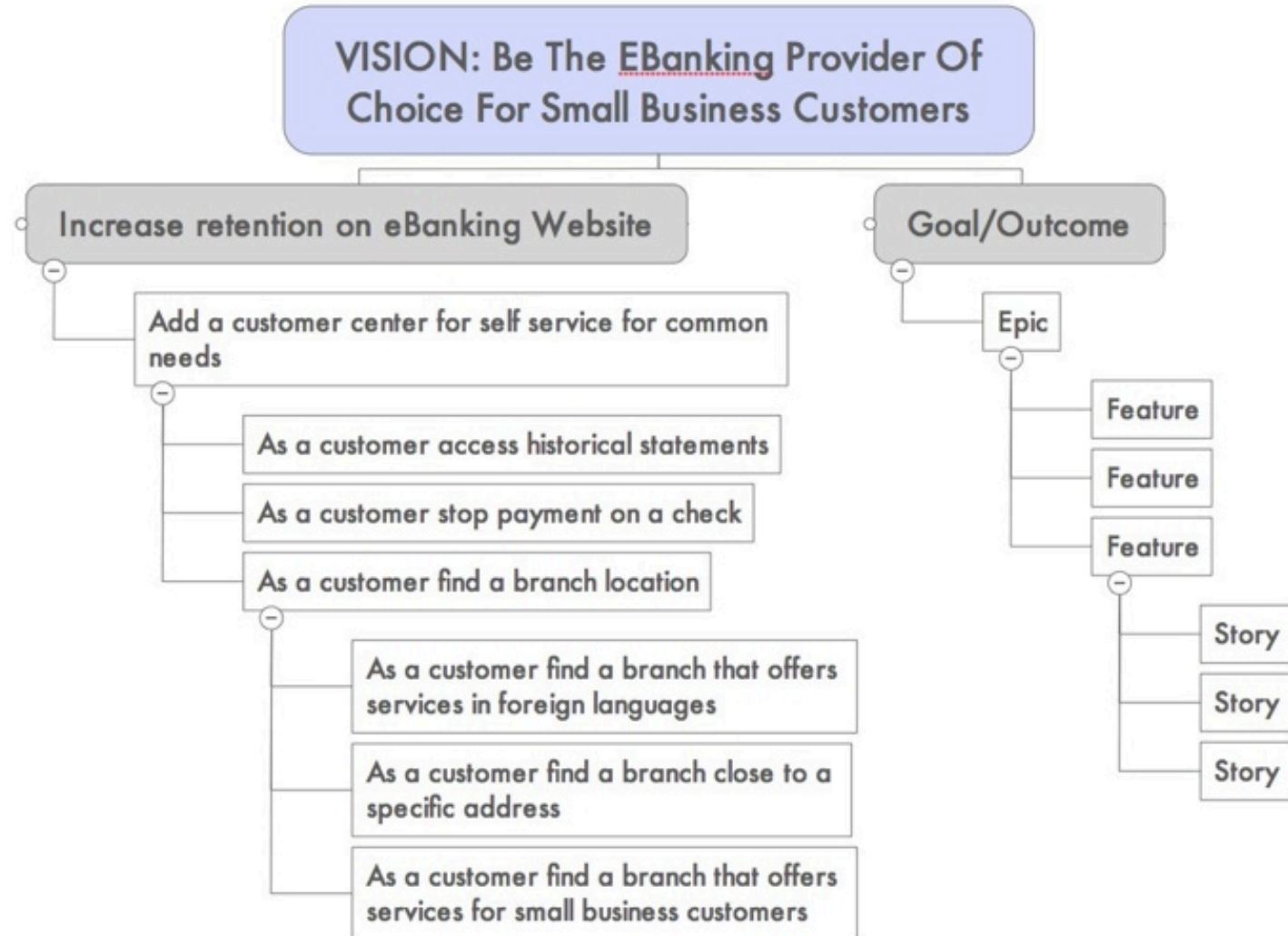
Release Burndown Chart Key to On Time Project Delivery

- Answers the key question "Will we be done on time?"

- Useful for "what if?" analysis and managing tradeoffs of Scope, <u>Velocity</u> and Time

- Vital for identifying and addressing unreasonable expectations

Work remaining (story points)

Sprint
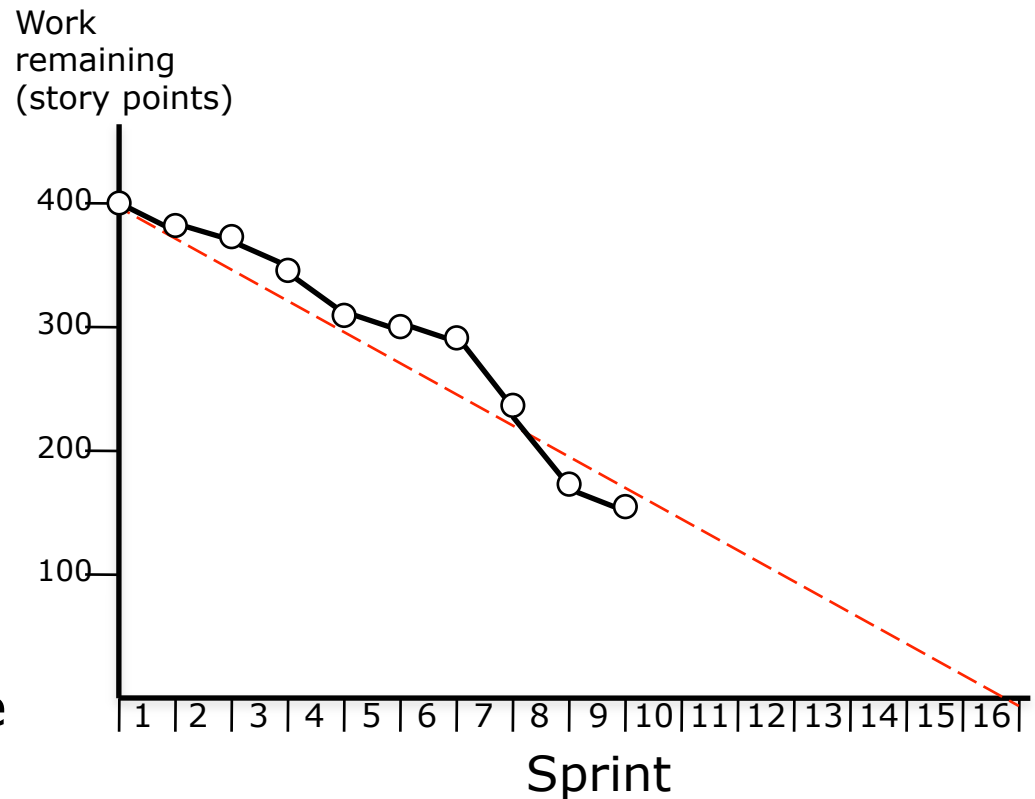
Source: Henrik Kniberg

Two More Considerations for Burndown

Emerging Requirements

Additional user stories beyond those known in the backlog that are "discovered" as the project evolves and require the team to do more work

Generally happens as a consistent percentage of estimated work, which can either be added to the backlog as a "buffer" or subtracted from velocity in calculating burndown
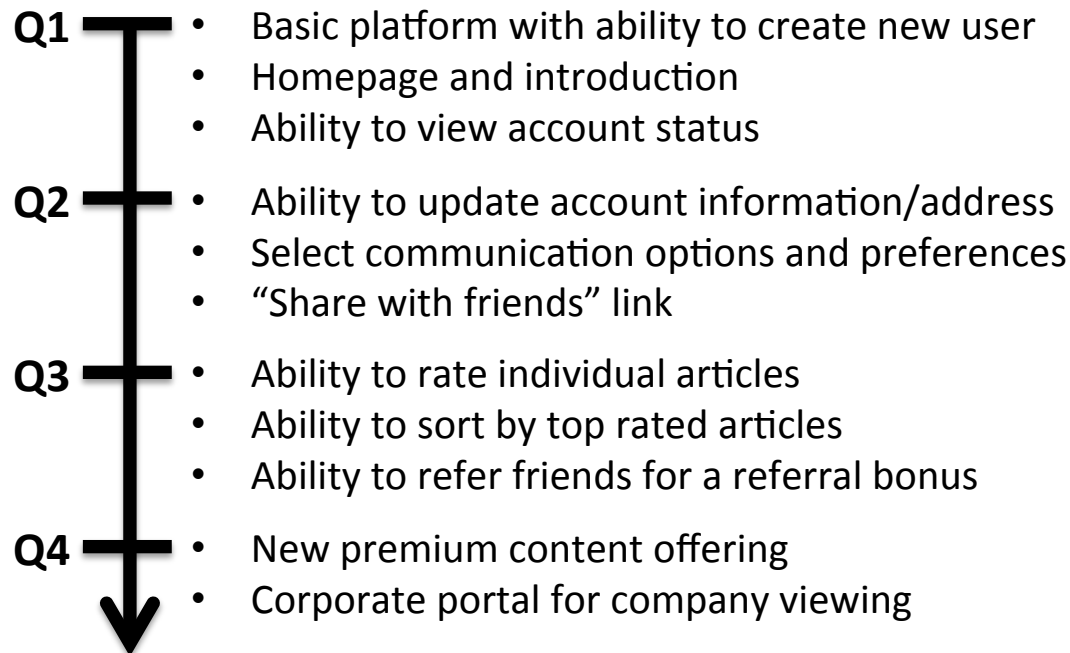
Bugs and Customer Feedback

Additional work that cannot be anticipated in the release plan, but you know it will come up as product functionality is released

Track as a separate buffer as a percent of estimated work, and try to manage down the percent of velocity devoted to bugs as a way to speed up the team

Both factors must be accounted for to determine accurate burndown

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Feature Timeline Helps Stakeholders Know when to Expect New Functionality

- Facilitates conversations on feature priority
- Aligns stakeholders and heads off distraction

- Ground rule: Timeline is only an estimate, and subject to change

Q1
- Basic platform with ability to create new user
- Homepage and introduction
- Ability to view account status

Q2
- Ability to update account information/address
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Q3
- Ability to rate individual articles
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Q4
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Three Common Approaches to Release Planning

- ## Deadline-based
  - External deadline specified for team, they must complete as much of a given backlog as possible before that date

- ## Regular-Departure
  - Set cadence of product releases. (e.g. quarterly)
  - Ready features are included in the release, non-ready ones wait for next release


Incremental Product Release

- ## Value-Based
  - Team produces incremental potentially-shippable product each Sprint
  - When PO decides enough new value has been created, features are released to customers

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Deadline–Based Release Planning
Medco case study

On July 7 2006, Medco CEO promised Wall Street analysts a completely new pharmacy fulfillment system to be implemented by July 7, 2007
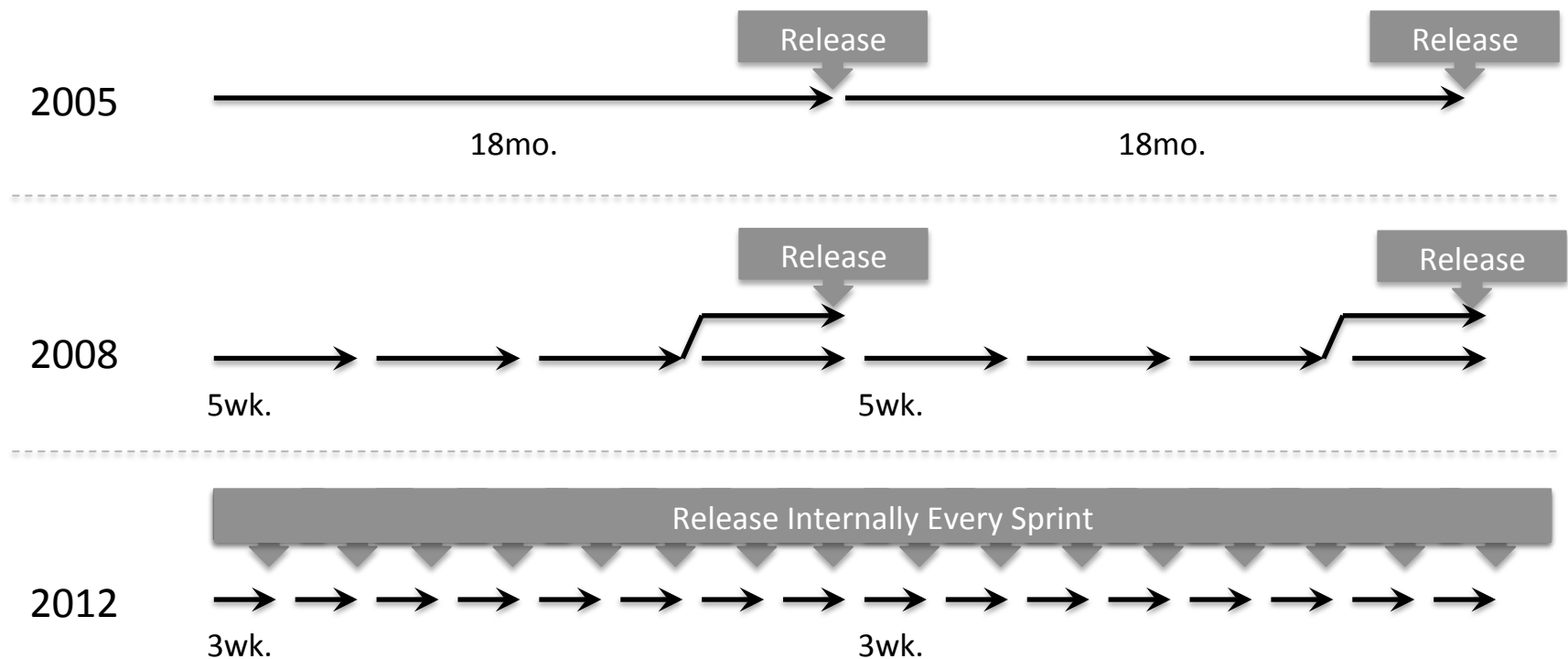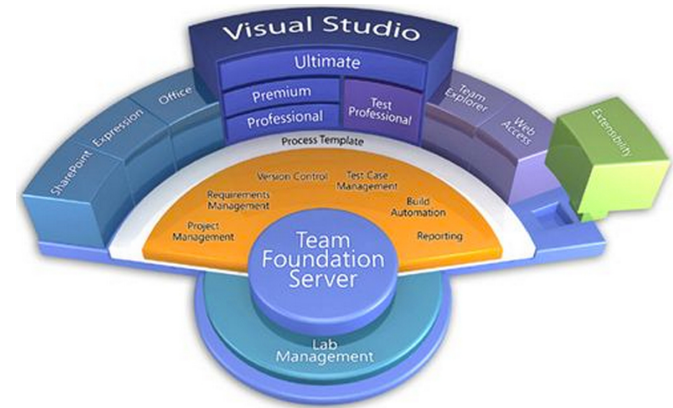- Unfortunately, he didn't check with the development team first!?!!
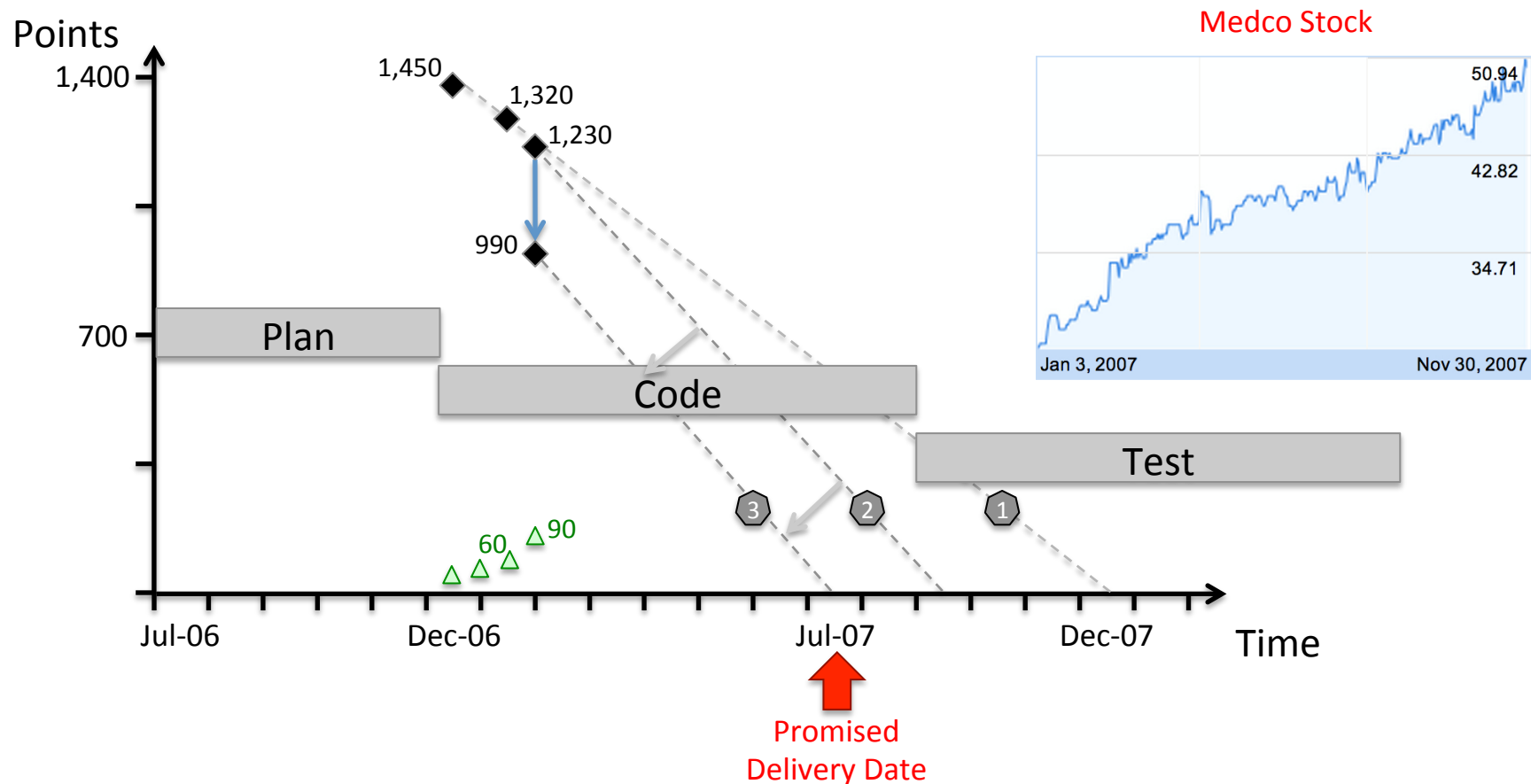
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Regular Departure Release Planning
Microsoft Case Study

- Prior to 2005, Microsoft released a new version of its Team Foundation Server (TFS) product roughly every 18 months
- Using Scrum, it now deploys a new version internally every 3 weeks

2005

Release   Release

18mo.   18mo.

2008

Release   Release

5wk.   5wk.

2012

Release Internally Every Sprint

3wk.   3wk.

Source: Sam Guckenheimer and Neno Loje. Agile Software Engineering with Visual Studio. Microsoft Press, 2012.
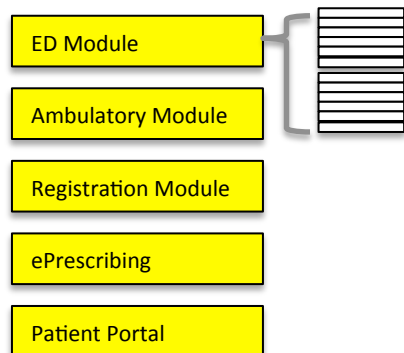
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Value-Based Release Planning
Healthcare Startup Case Study

- Venture-backed healthcare startup looking to raise additional investment
- Needs to demonstrate value creation rapidly to court investors

1

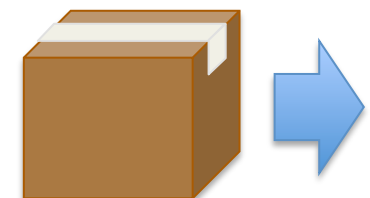Divide work into Epics, prioritized by expected revenue

ED Module
Ambulatory Module
Registration Module
ePrescribing
Patient Portal

2

Decompose epics into actionable user stories and start working

24 hrs

Sprint
1-4 Weeks

3

As each Epic is completed, release into market

PO

Product Owner
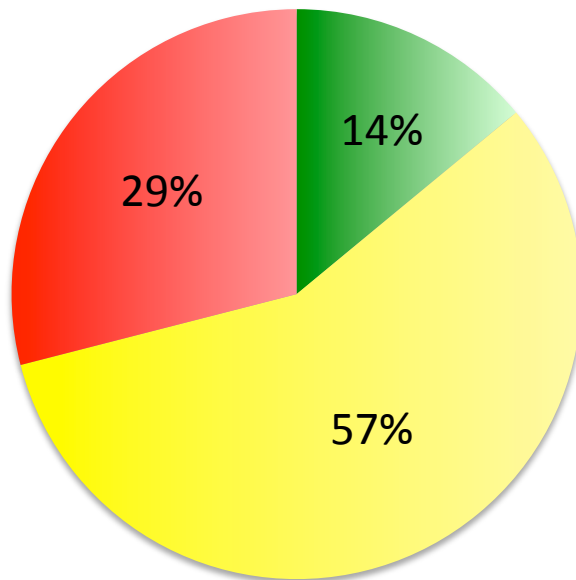
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Parting Thought - The Logical Conclusion
Radically <u>Better</u> Value Delivery with Less Investment

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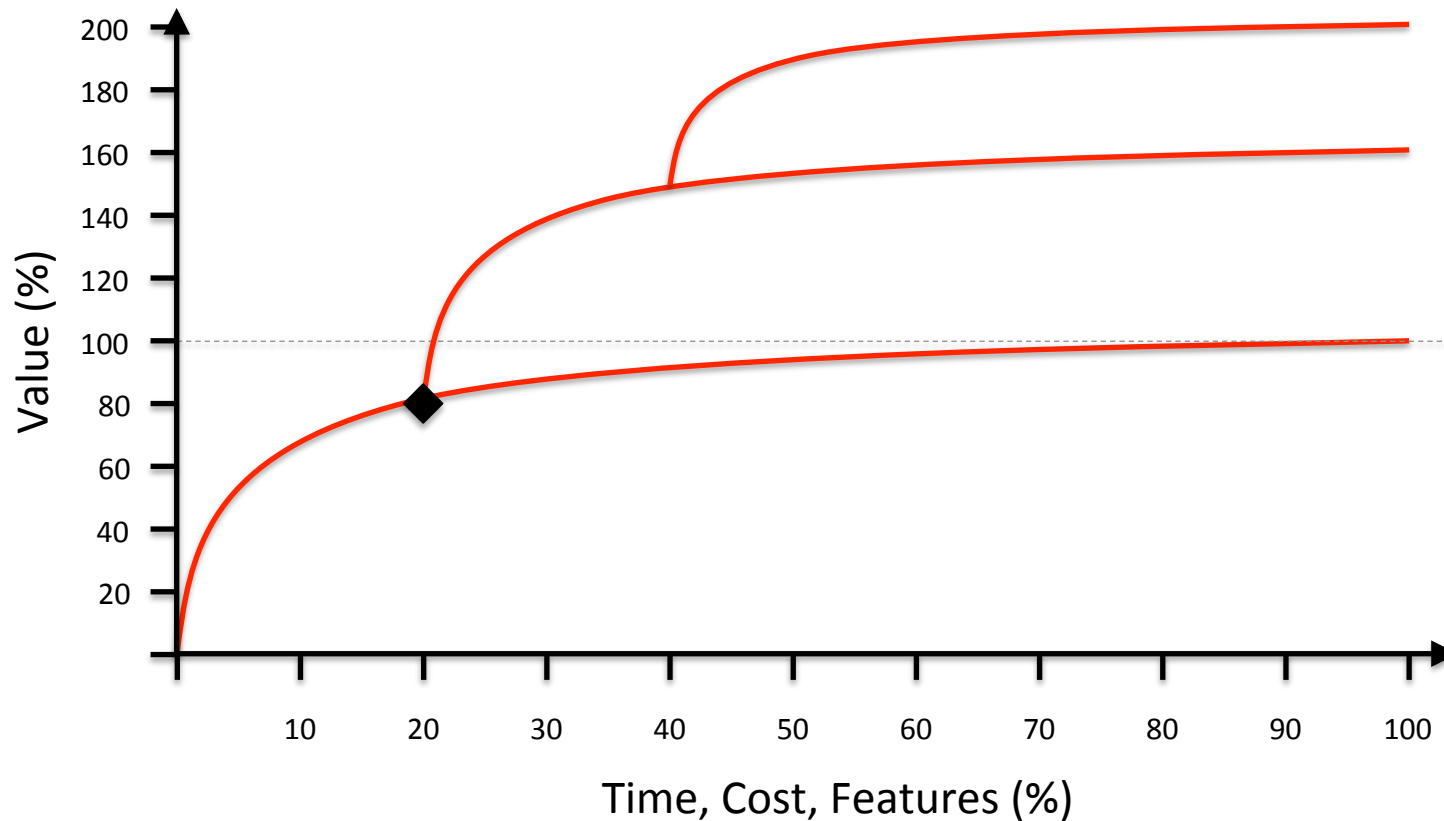
Using Scrum Drives 3x Increase in Successful Project Outcomes

Traditional Waterfall Projects

14%

29%

57%

Agile Projects

9%

42%

49%
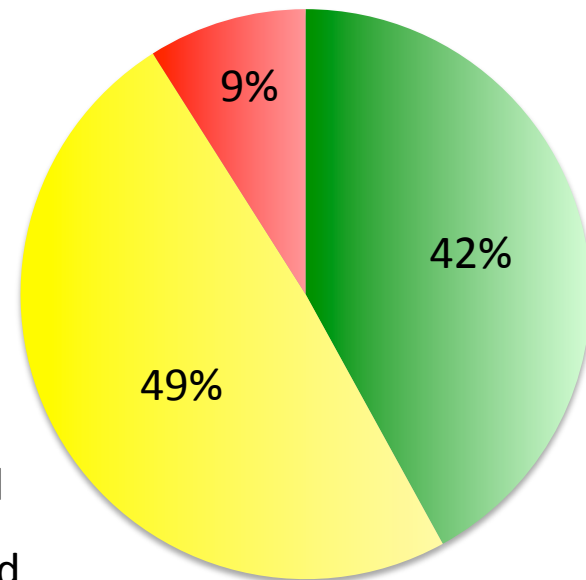
- 🟩 Successful
- 🟨 Challenged
- 🟥 Failed

Source: the Standish Group 2002-2010 CHAOS manifesto survey

"Challenged" means the project was completed behind schedule and/or over-budget;
"Failed" means the project was abandoned and no product was ever used

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Combined Result up to 30x Value Delivery

Waterfall Project

1 project – taken to 100% feature completion

X

14% chance of success on each project

=

14% expected value delivery

Scrum Project(s)

Fund 5 projects for the price of 1 waterfall project

X

10x

Each project potentially delivers 200%+ value (iterative feedback)

X

42% chance of success on each project

3x

=

420% expected value delivery

30x!

Questions?

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