

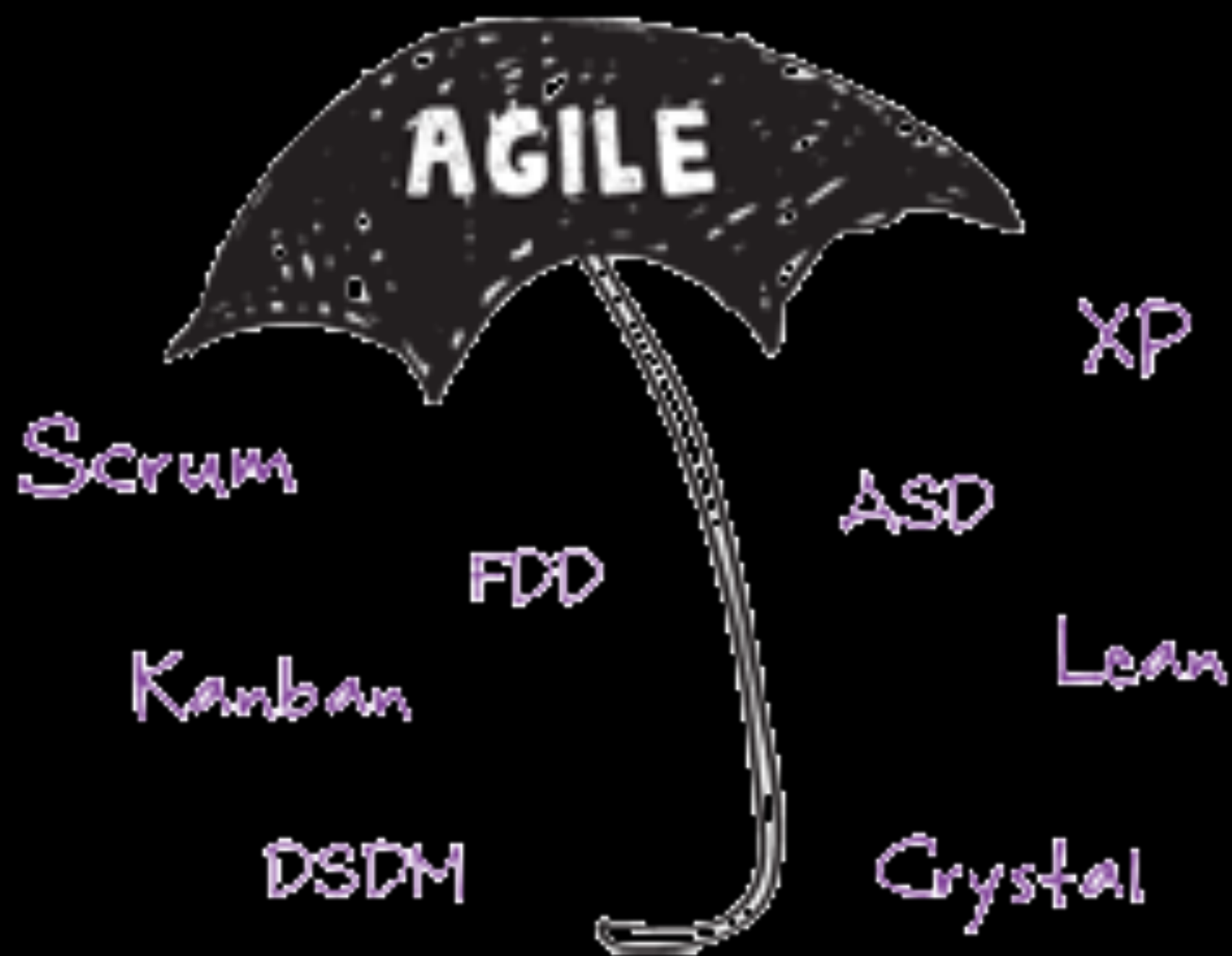
AGILE PROJECT MANAGEMENT USING

# SCRUM

by Kris Anderson







# The Agile Movement



# AGILE

- Working software is primary measure of success
- Welcome changing reqts, even late in development
- Deliver working software frequently
- Regular reflections on how to become more effective





Agile vs Waterfall

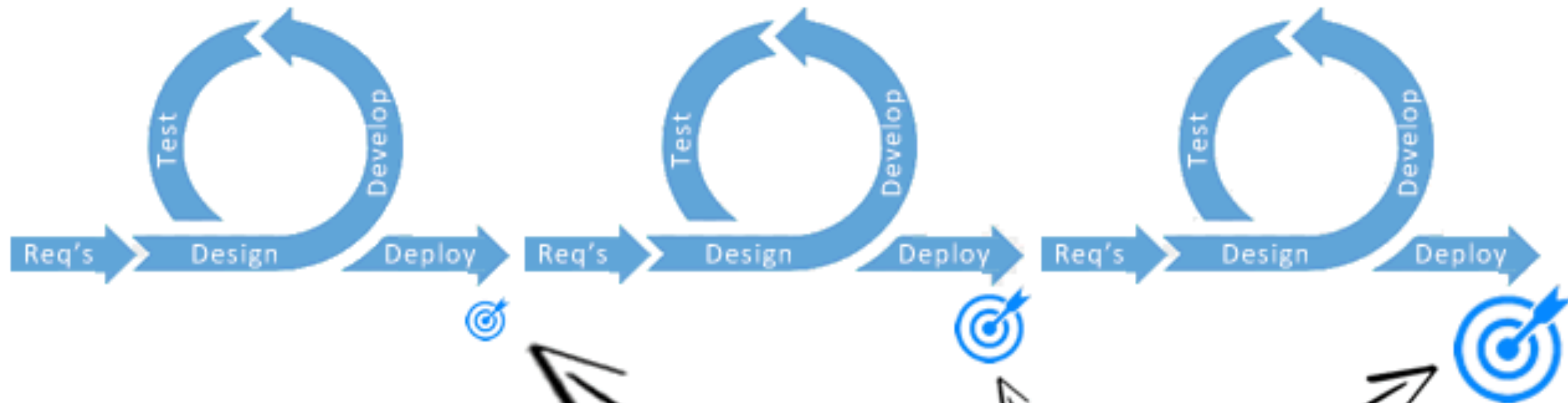


# Waterfall



*Big outcome at end*

# Agile



*Cumulative outcomes*

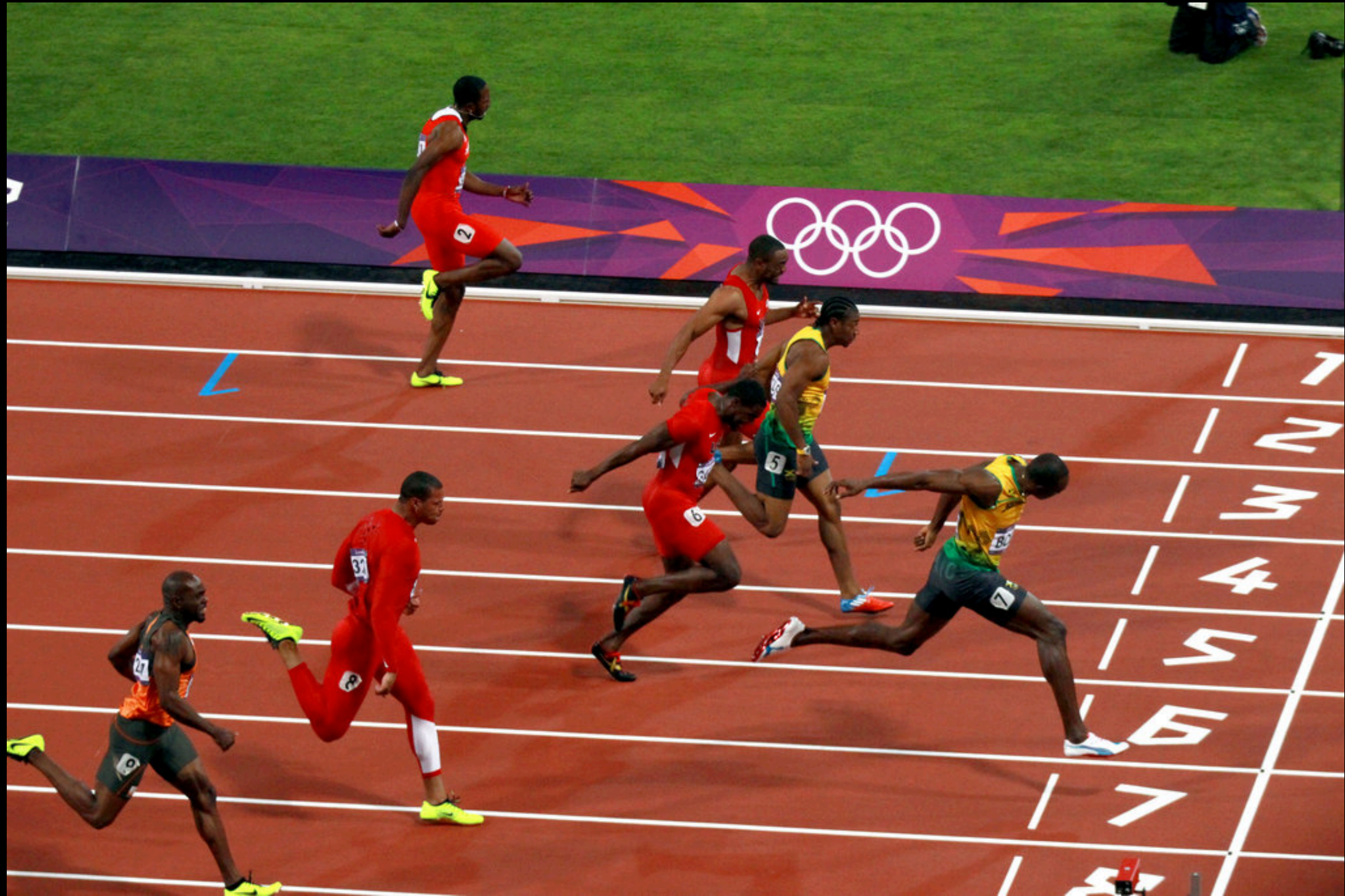




Scrum

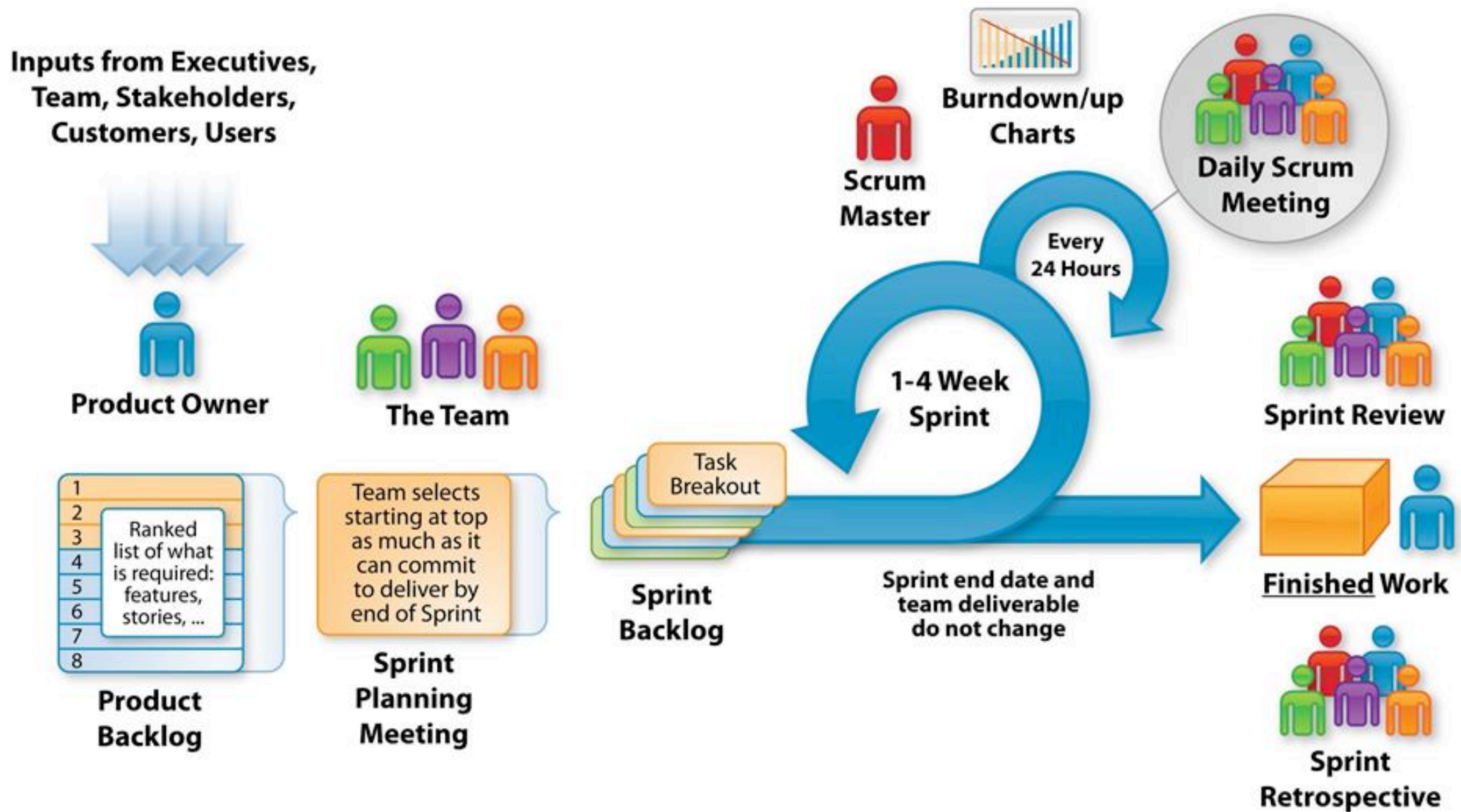


# The Sprint





# The Agile - Scrum Framework



# Roles

Scrum Master

Development Team

Product Owner

*Chickens*



SCRUM MASTER

# FULL-TIME JOB

## **Program Manager 2**

Microsoft - ★★★★★ 3,345 reviews - Redmond, WA 98052

Certified Scrum Master. Certified Scrum Product Owner. Microsoft is an equal opportunity employer. Familiarity with VSTS, ITIL, Agile and DevOps....

13 days ago - [save job](#) - [more...](#)

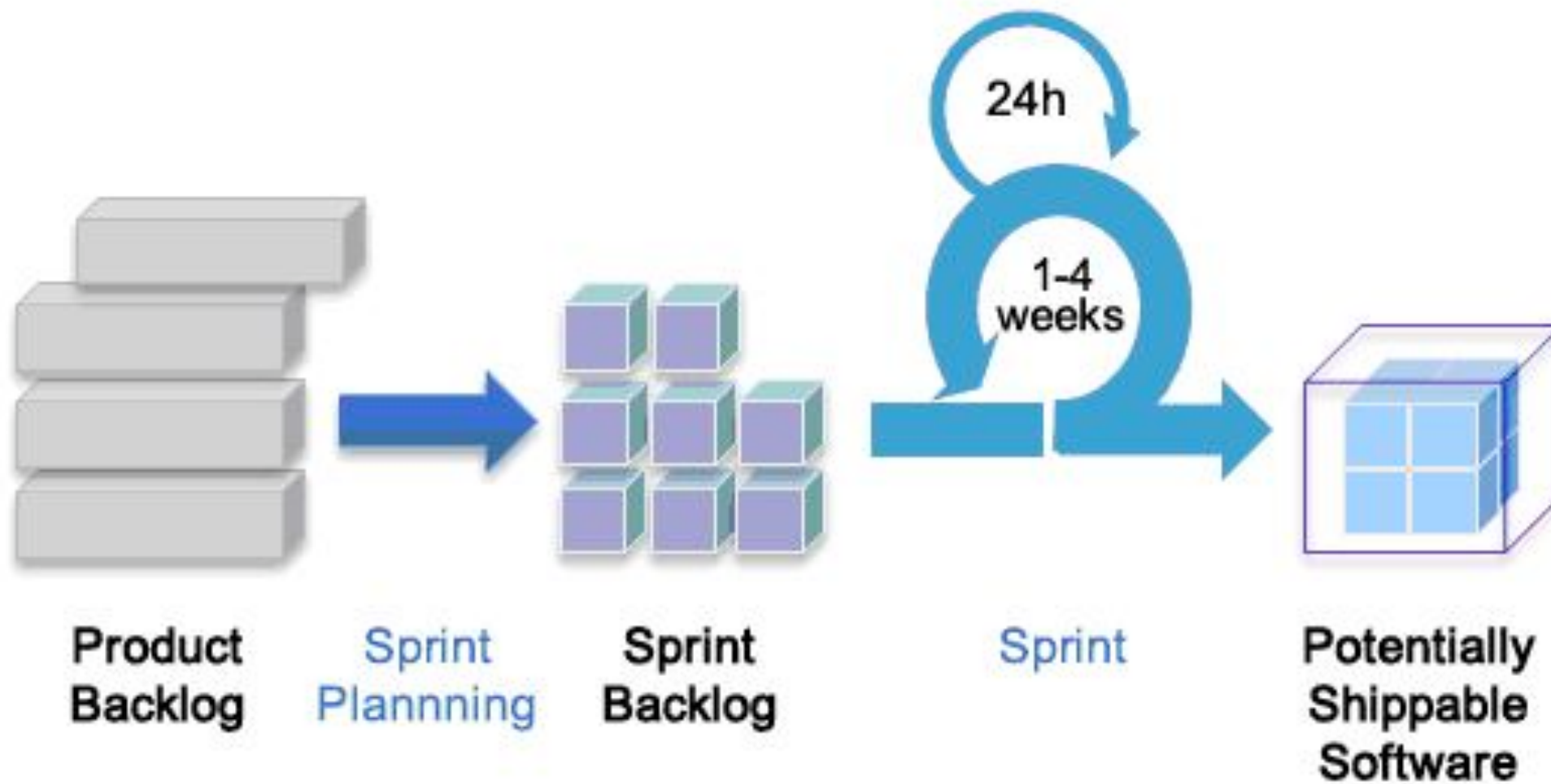
## **Senior Program Manager**

Microsoft - ★★★★★ 3,345 reviews - Redmond, WA 98052

Certified Scrum Master and preferably also Certified Product Owner. Microsoft is an equal opportunity employer....

17 hours ago - [save job](#) - [more...](#)

# Artifacts

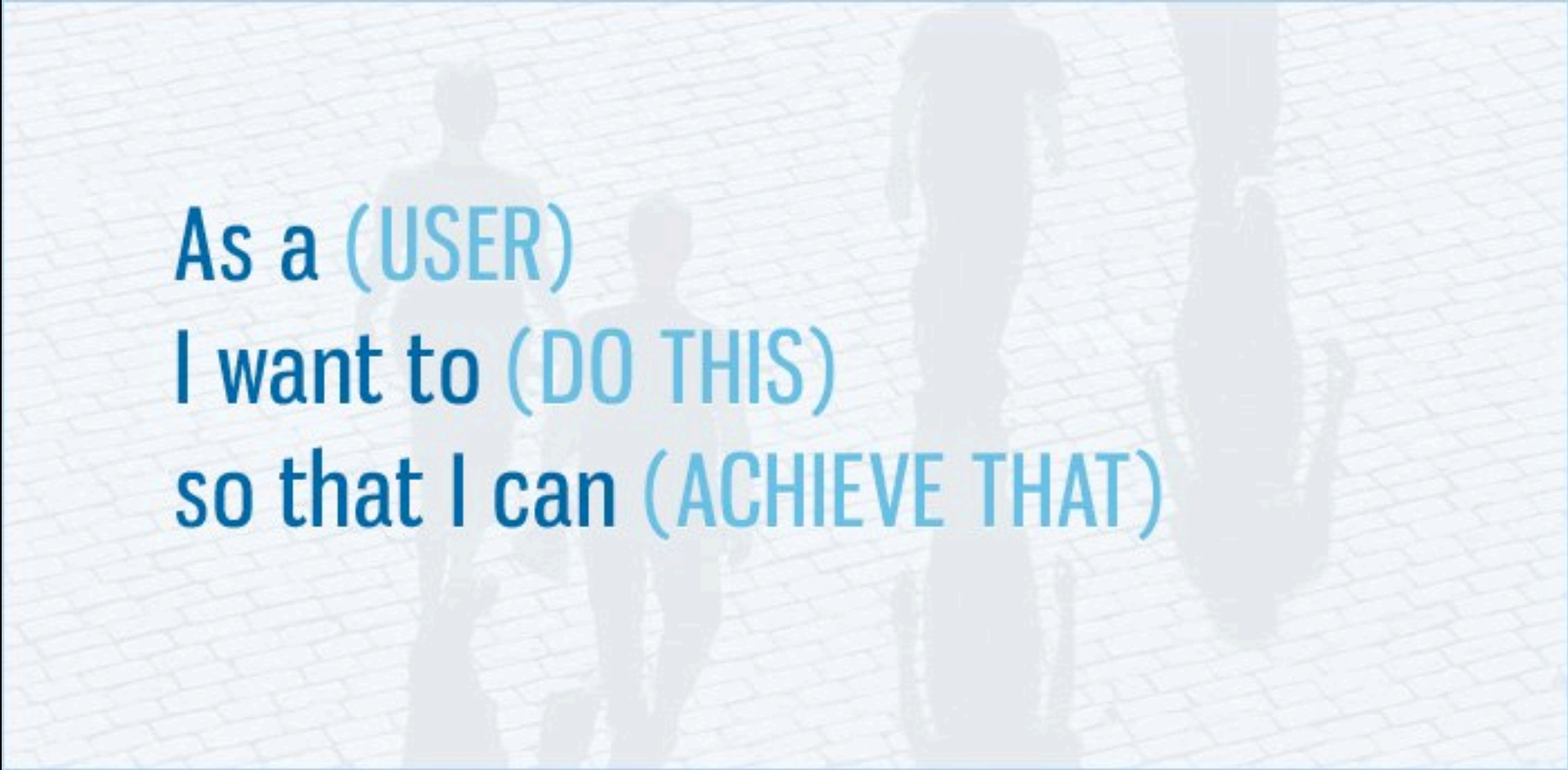




# Product Backlog List (PBL)

A prioritized list of User Stories

# User Stories



**As a (USER)  
I want to (DO THIS)  
so that I can (ACHIEVE THAT)**



# User Story Card example

User Story Card example as it is used by Agile / XP teams

- User Story statement in the front
- Acceptance criteria in the back

Front →

As a user, I want to be able to cancel my reservation at anytime so that I do not lose all the money if an incident occurs.

Back

- The product owner's conditions of satisfaction can be added to a story
- These are essentially tests

- Verify that a premium member can cancel the same day without a fee.
- Verify that a non-premium member is charged 10% for a same-day cancellation.
- Verify that an email confirmation is sent.
- Verify that the hotel is notified of any cancellation.

## User Stories Key Points

- User Stories are relatively small: a few days' effort for one or a pair of Team members.
- User Stories are focused on the what (the needs of the user), not the how (the technology / development).
- User Stories are the starting point for an ongoing collaboration between the Product Owner and Development Team.
- User stories are best framed in language that users and stakeholders are familiar with.
- Not everything in the Product Backlog needs to be a User Story.

# Is it Ready?

## Good User Stories are INVEST

Agile teams usually capture requirements in the format "As a <role> I want <solution> so that <value>". The whole team - business and development people together - improve stories by making them:

### **I**ndependent

Independent stories can be freely re-ordered in the product backlog. Sometimes you can't get rid of an order dependency but it should be an exception.

### **N**egotiable / Negotiated

A user story is the reminder to have a conversation. In that conversation the team negotiates the concrete solution, the "I want" part. The story may be enhanced or rewritten.

### **V**aluable / Vertical

Each story adds something useful for the end user / customer - the "so that" part. This leads to vertical increments: E.g. a working slice of front end, scripts & DB, instead of a finished DB without front end.

### **E**stimable

You need a rough effort estimate to guestimate ROI and order the backlog. If you can't estimate, you need to a) break the story into pieces or b) better understand what value it's meant to add or c) explore unknown tech in a time-boxed research spike.

### **S**mall

Small stories are easier to estimate and test and hide fewer misunderstandings. "Small" can be 1 day in a web shop or 3 person-weeks for a medical product. At the very least, the team must be able to finish a story ("done done") in 1 iteration.

### **T**estable

It must be possible to write a test (at least in theory) for each story. Otherwise, how will you confirm that the story is done? Sometimes test cases are given as acceptance criteria. If you can't think of a test, the story is probably to fuzzy.



# Sprint Backlog List (SBL)

The Sprint's To-Do list

TARGET VELOCITY - 30 STORY POINTS

# Backlog

# W.I.P

# Done

Unprepared  
0

For Kick Off  
2

Story  
1

To Do

In Progress

Out

Sprint:

139757  
LINK LABELS ARE NOT ALIGNED WITH THE MOVE NAME FUNCTION  
US3772

137115  
maly says deleting a schematic auto removes it  
US3732

138492  
Duplicate in Schematics list  
US3731

139528  
Load test debugging/confirming a feature  
US3762

139600  
Training with GIS road is deleted and updated  
US3764

139558  
Insertion for team to determine if we need to reflect back on the schematic  
US3765

139559  
Generalization loss see Tom's email  
US3766

139047  
Order fundamentally for the right design is not always intuitively as expected  
US3771

140 139521  
'zero length geometry' caused by closed lines collapsing too much  
US3762

139622  
Large number of Schematics implies application  
US3763

139622  
Setting both keep name same and detect disambiguated to "Y" please the UMLA team  
US3764

Stories Sized Understood

Kicked Off Task Created

Tasks

139756  
TRACE BACK HIT WHEN TRY APPLIED AFTER ROTATING LABEL AT CERTAIN LONGER ZOOM LEVELS  
US3767

139748  
Direction link labels is shown after an update  
US3750

US912  
US917  
US916  
SPIKE: Gather info on installing Schematics

139744  
139747  
139751  
Update all existing Schematics after HIR three features turned off

139751  
Planning NLSF  
US3571

More Merging

1412167  
Save & Update Spike  
US3767

139655  
TRACE BACK DURING SCHEMATIC UPDATE AND LINK GRAPH  
US3762

US3662  
TRACEBACK ON FORMING THE LABEL - THE CLASH SHOULD BE FORMED FROM THE OTHER WAY

Updating test results in QC & writing defects

139628  
139628  
US3768  
Tidy Schematics has lost its original message

139182  
US3551  
Trace back when trying to Publish a Schematic

US3552  
US3552  
CHECKING MORE PENDING WORK LOGS

To S Design Doc



# The Increment



AND NOW, AT LAST!

ANOTHER FILM COMPLETELY DIFFERENT FROM SOME OF THE OTHER FILMS WHICH AREN'T QUITE THE SAME AS THIS ONE IS

## MONTY PYTHON AND THE HOLY GRAIL

MAKES BEN HUR LOOK LIKE AN EPIC



HAT COHEN

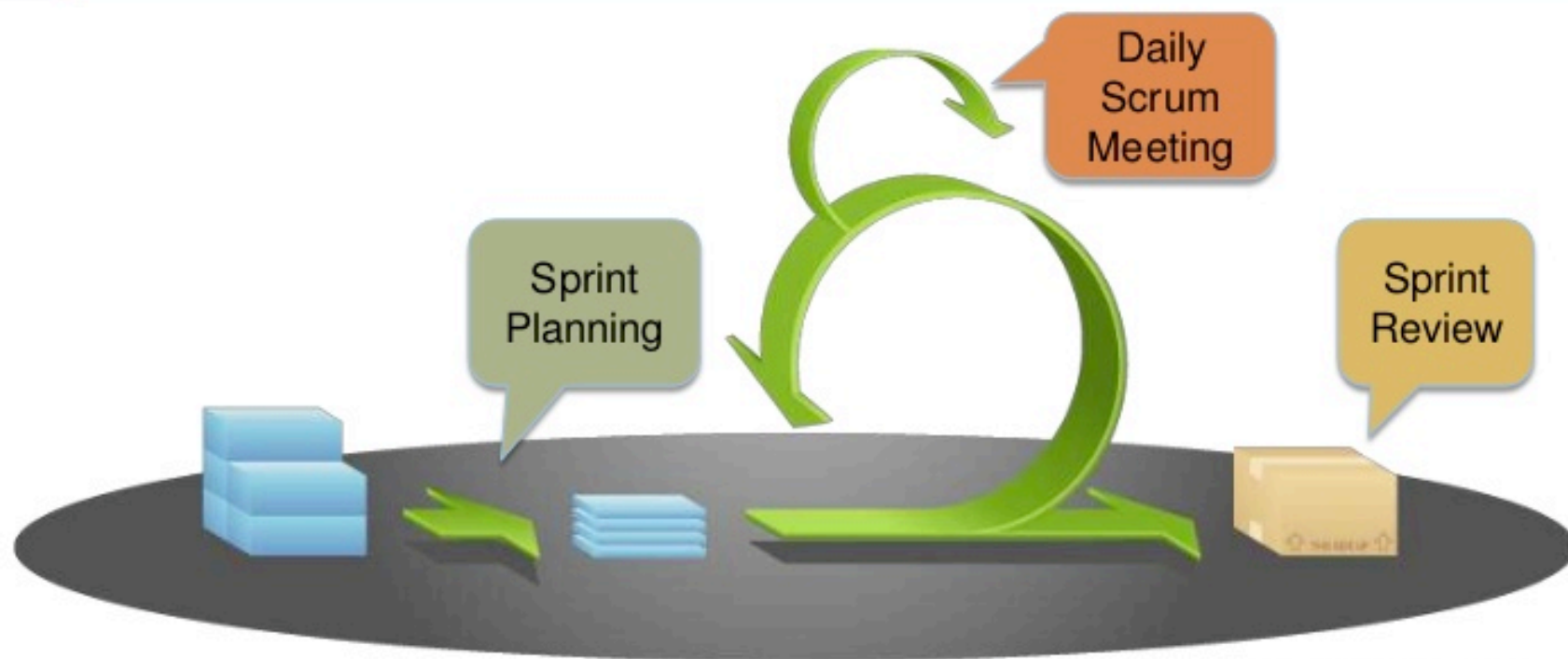
"MONTY PYTHON AND THE HOLY GRAIL"

GRAHAM CHAPMAN, JOHN CLEESE, TERRY GILLIAM, ERIC IDLE, TERRY JONES, MICHAEL PALIN

Songs by NICK KINGS - Executive Producer JOHN GOLDSTONE - Produced by MARK FORESTATER - Screenplay by TERRY JONES and TERRY GILLIAM

# Rituals

## Rituals



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Sprint Retrospective

Erin Beierwaltes  
<http://agile.conscires.com>



# Sprint Planning

<b>Team Support %</b>	15%
<b>Days in Sprint</b>	10

<b>Team Member</b>	<b>Time Off Hours for Sprint</b>	<b>Meeting Hours/Day</b>	<b>Support Hours/Day</b>	<b>User Stories Capacity Hours for Sprint</b>
Joe Smith	8	1	1.2	50
Jenna Martin	0	1	1.2	58
Pierre Trudeau	16	1	1.2	42

**Total Capacity for User Stories (Hours)** 150

# The Daily Scrum(Standup)



## Daily Standup

- Each day during the sprint, *the **daily standup** happens.*
- The meeting starts precisely on time.
- All are welcome, but normally only the core roles speak
- The meeting is timeboxed to 15 minutes
- During the meeting, each team member answers three questions:
  - What have you done since yesterday?
  - What are you planning to do today?
  - Any impediments/stumbling blocks?
- It is the role of the ScrumMaster to facilitate resolution of these impediments, although the resolution should occur outside the Daily Scrum itself to keep it under 15 minutes.





# Sprint Review



# Sprint Retrospective

## Sprint Retrospective



### 3 roles

- Product owner
- Scrum master
- Team

### 3 artifacts

- Product backlog
- Sprint backlog
- Sprint burndown

### 3 activities

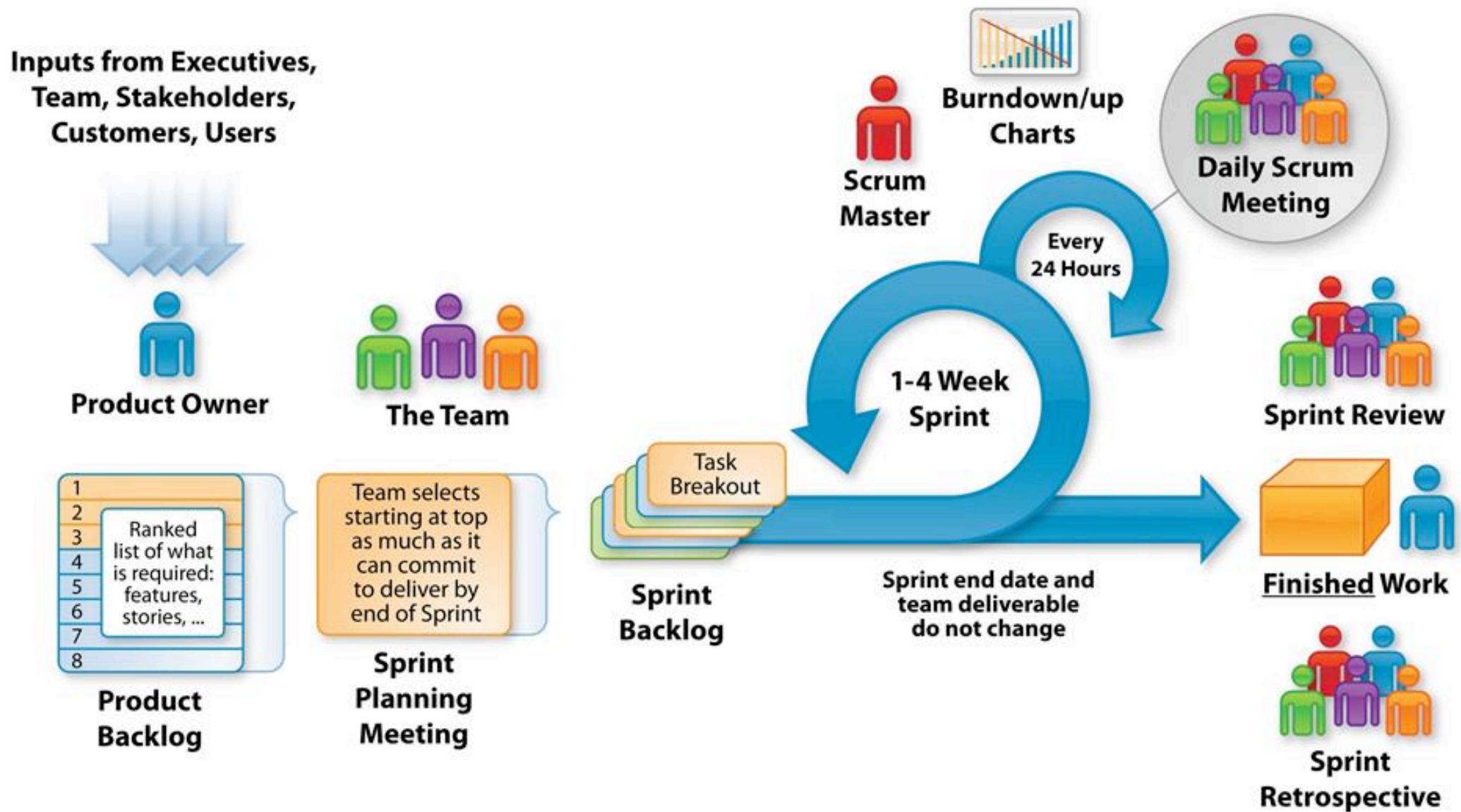
- Sprint planning
- Daily scrum
- Sprint review
  - Demo
  - Retrospective

Source: Henrik Kniberg



Monday	Tuesday	Wednesday	Thursday	Friday
		1 Sprint Planning (up to 4 hours)	2 Daily Scrum	3 Daily Scrum
4 Daily Scrum	5 Daily Scrum	6 Daily Scrum Grooming	7 Daily Scrum	8 Daily Scrum
9 Daily Scrum All Code in QA	10 Daily Scrum Review Retrospective	1 Sprint Planning	2 Daily Scrum	3 Daily Scrum
4 Daily Scrum	5 Daily Scrum	6 Daily Scrum Grooming	7 Daily Scrum	8 Daily Scrum
9 Daily Scrum All Code in QA	10 Daily Scrum Review Retrospective			

# The Agile - Scrum Framework





# You Can Scrum

Build PBL

Write User Stories

Sprint Planning

Daily Scrum

Review/Retrospective



I'm available to assist.

Kris Anderson

[kpa2@humboldt.edu](mailto:kpa2@humboldt.edu)

