



Planning for Contract Agile Projects

Mike Cohn
Copenhagen
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1

Mike Cohn

- Founding member and director of Agile Alliance and Scrum Alliance
- Founder of Mountain Goat Software
- Doing Scrum since 1995
- Started my career as a programmer
- VP Engineering in 4 companies



2

User stories & velocity



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3

User stories

As a sports announcer, I can see a list of all athletes in an event.

As a sports announcer, I can view details about a specific athlete.

As a content editor, I have basic control over how data is formatted.

A template

“As a <user role>, I want/can/am able to <goal> so that <reason>.”



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A requirements document

Athlete browsing

As a sports announcer...

1. I can view details about a specific athlete
 - Name (multiple, could be long, include pronunciation)
 - Nickname (include pronunciation)
 - Prior performance at Olympics
 - World and Olympic records held
 - Interesting anecdotes
2. I can bookmark athletes of interest
 - At least 200 bookmarks

As a content editor...

3. I have basic control over how data is formatted



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As a sports announcer, I can see a list of all athletes in an event.

10

As a content editor, I have basic control over how data is formatted.

5

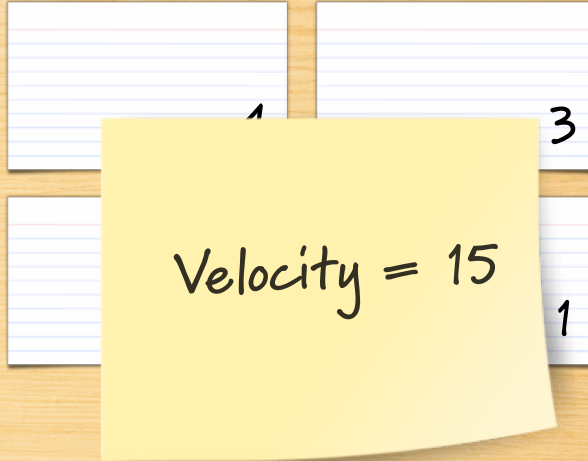


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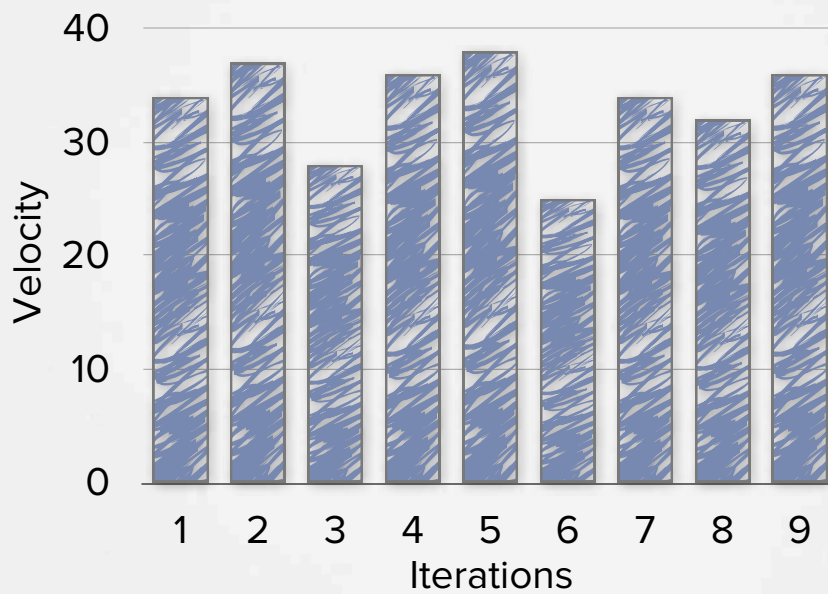
Velocity

An iteration



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1
Planning with historical data

2
Fixed-date & fixed-scope projects

3
Fixed-everything projects

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Calculate a confidence interval from historical data

27	90% confidence interval
34	
35	
38	
39	
40	
40	
41	
45	

Sorted Velocities

# of historical iterations	Iterations to throw out from each end
0-7	0
8-10	1
11-12	2
13-15	3
16-17	4
18-20	5
21-22	6
23-25	7
26+	8

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Fixed-date



Fixed-date planning

Three steps

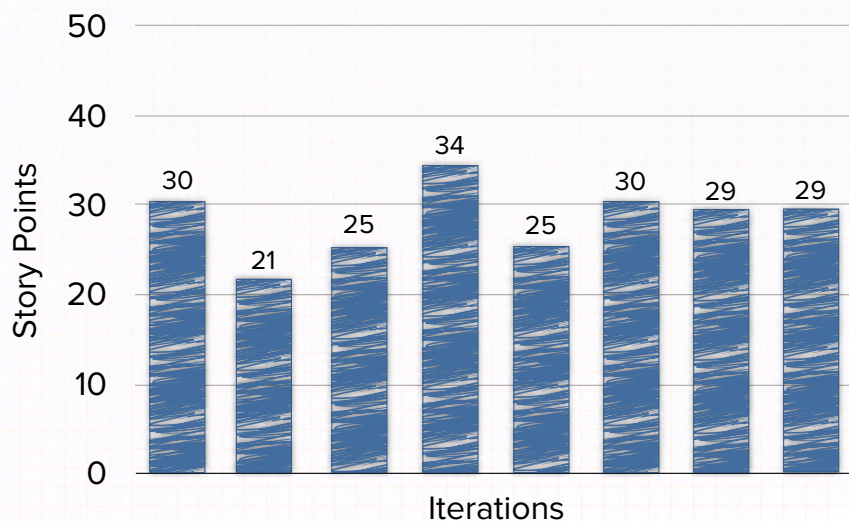
1. Determine how many iterations you have.
2. Estimate velocity as a range.
3. Use that range \times the number of iterations to partition the backlog into Will Have, Might Have, and Won't Have.



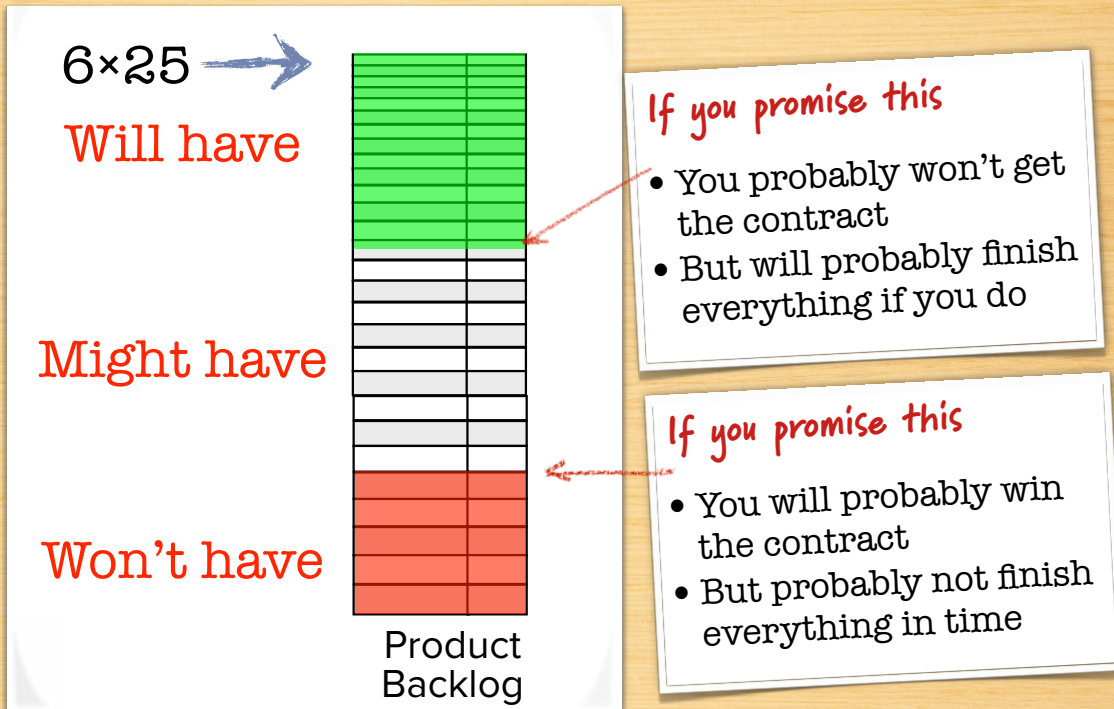
Count the iterations



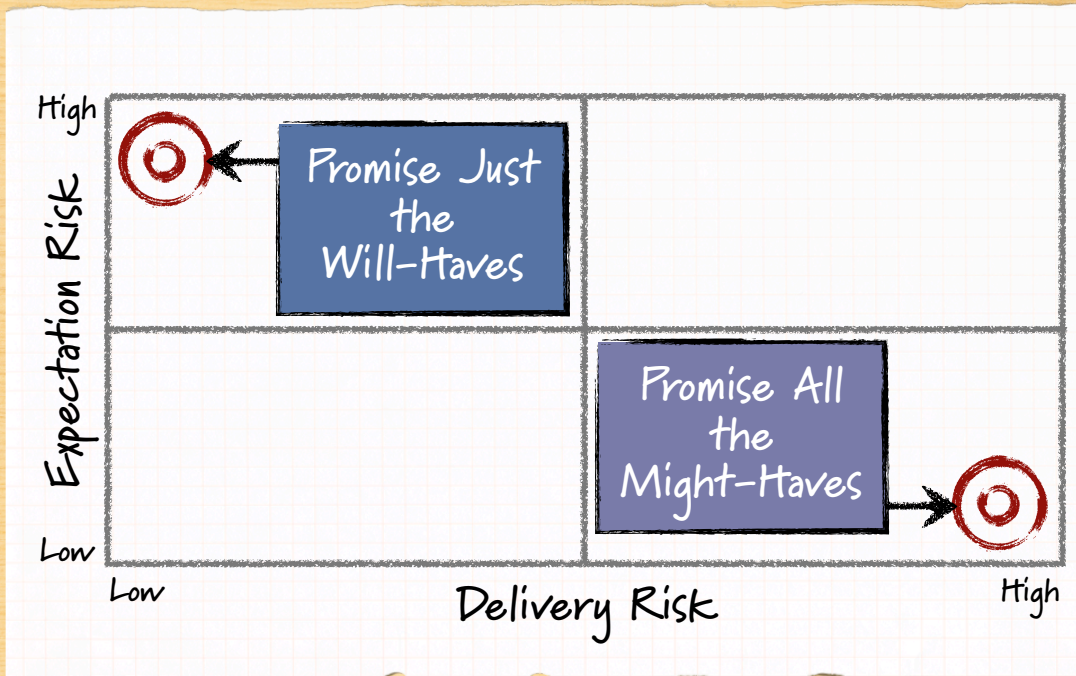
Determine a velocity range



Determine what to commit to



Balancing risk



Fixed-scope projects



Fixed scope planning

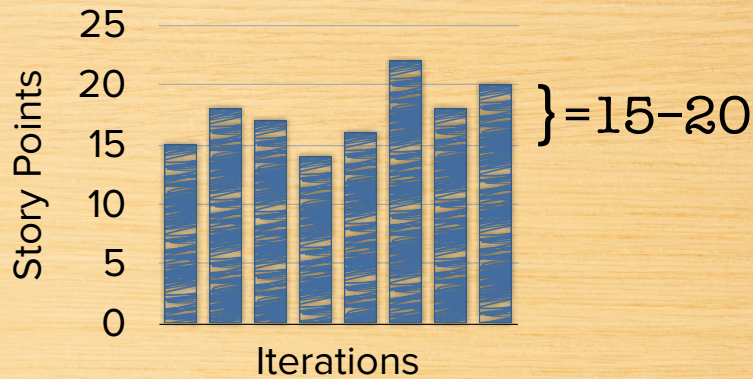
Three steps

1. Sum the product backlog items.
2. Estimate velocity as a range.
3. Use the sum of the backlog divided by the velocity range to determine a date range.





= 120 story points



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If you promise the short duration

- You probably get the contract
- But may not finish everything in time

$120 \div 20 =$



$120 \div 15 =$



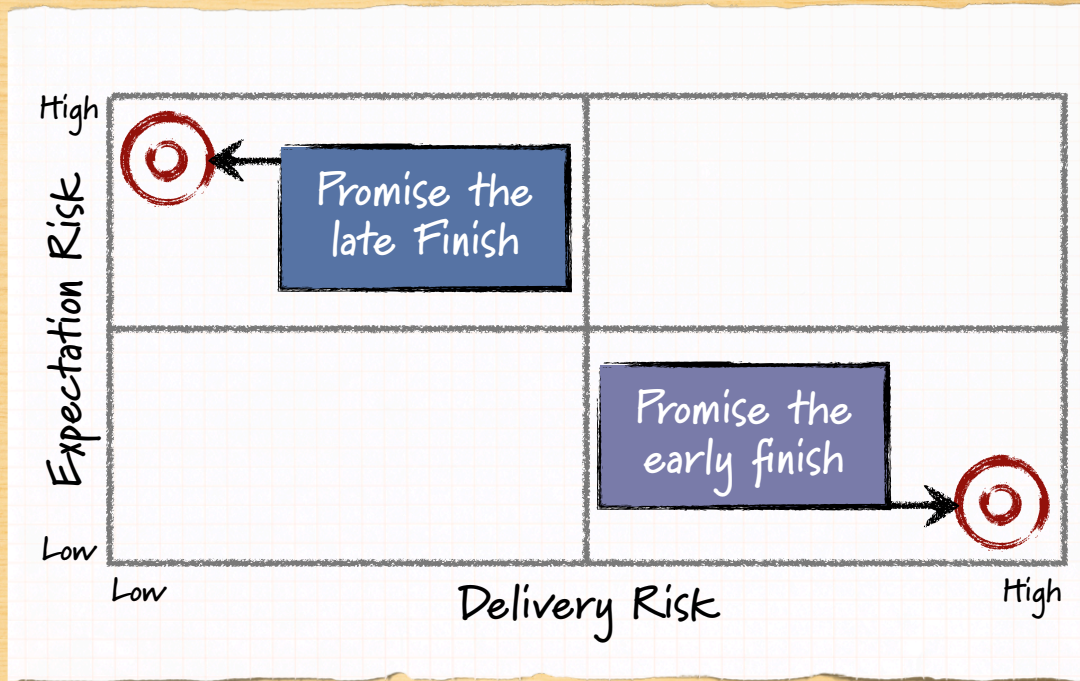
If you promise the long duration

- You probably will not get the contract
- But it should be easy to finish everything



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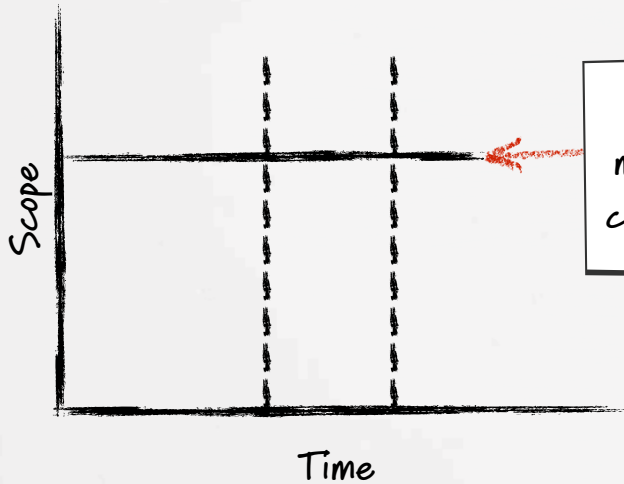
Balancing risk



Fixed-
everything
projects



A fixed-scope project



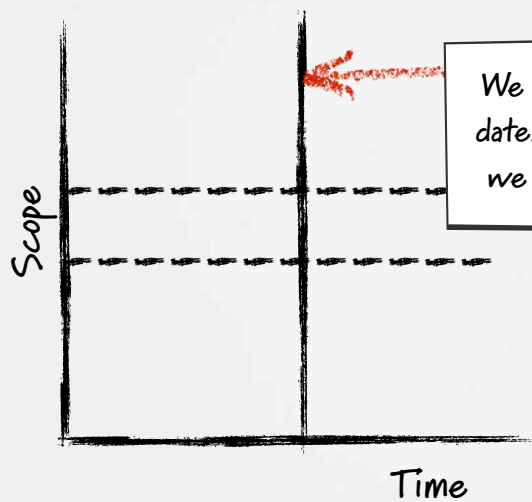
I want this much. When can I get it?



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25

A fixed-date project



We need it on this date. How much can we have by then?



26

Step 1: Estimate velocity

- Use a range

Step 2: Fix the scope

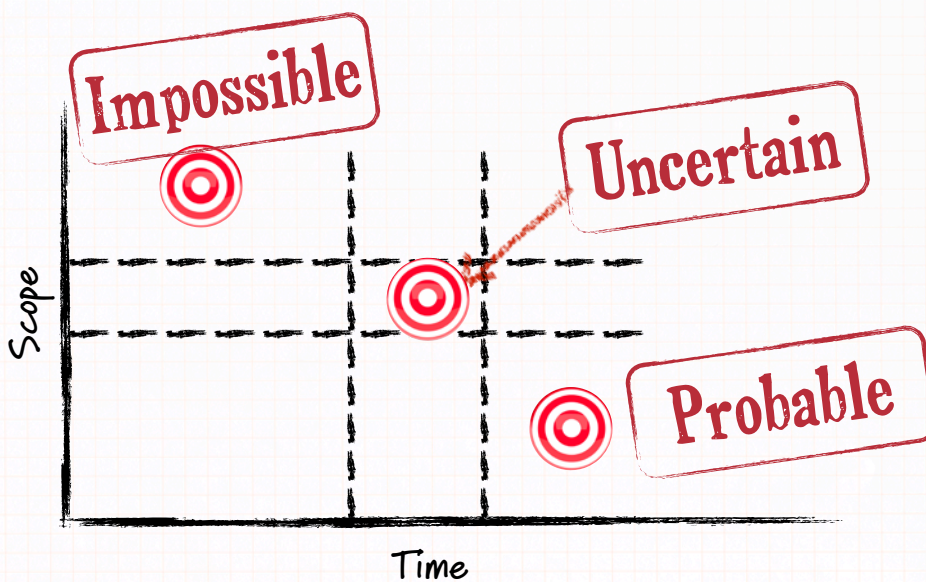
- Divide fixed scope by the velocity range
- Draw the vertical lines

Step 3: Fix the schedule

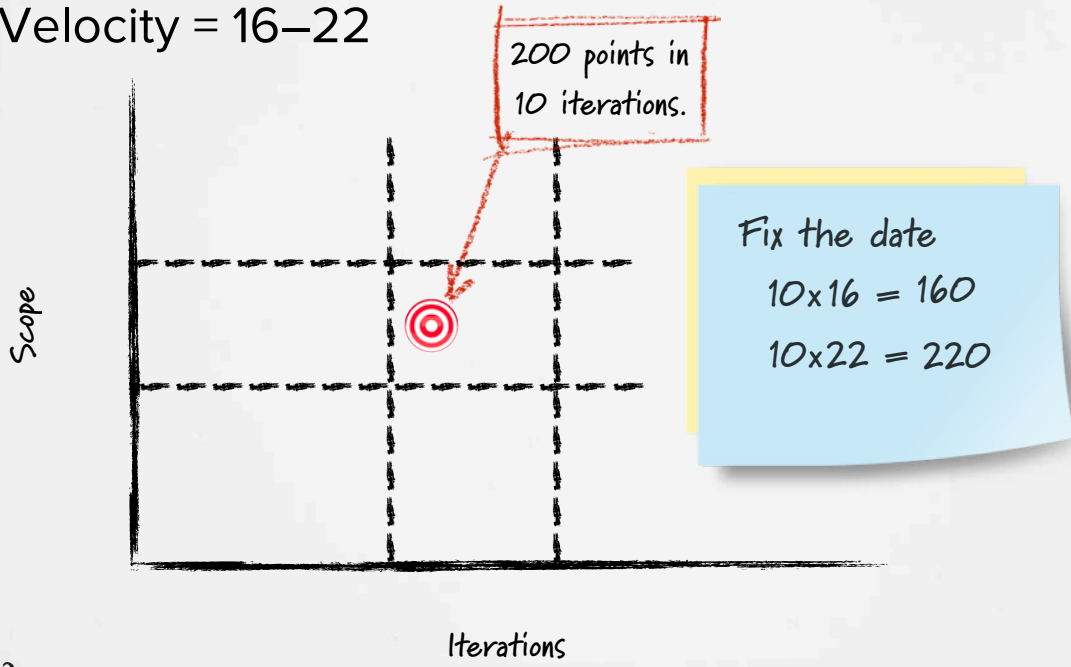
- Determine the number of iterations the team has
- Multiply by the velocity range
- Draw the horizontal lines



A fixed-everything project



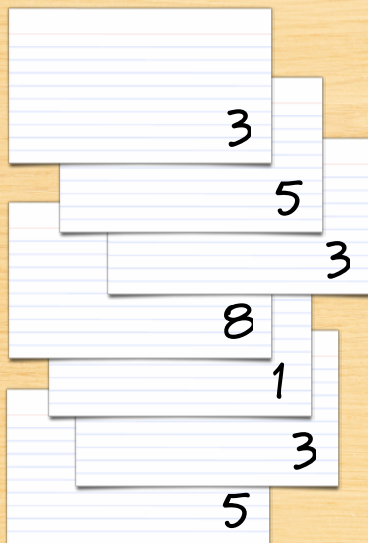
Goal: Deliver 200 units of work in 10 iterations
Velocity = 16–22



Estimating
velocity



Iteration planning



Iteration Plan

Code the ... 8
Test the ... 5
Confirm ... 2

Code a ... 12
Test the ... 4

Code the ... 6
Automate ... 8



Consider this team

Person	Hours/Day	Hours / Iteration
Sergey	4-6	40-60
Yuri	4-6	40-60
Carina	2-3	20-30
Total		100-150



Establishing their velocity

Capacity

100-150 hours per iteration

Code...	12
Desi...	6
T	8
Decide ...	8
Automate ...	12

46

Story	Points
As a frequent flyer ...	3
As a visitor ...	5
As a vacation planner ...	5
As a frequent flyer ...	2

Code...	8
Test	6
Desi	12
Test ...	5

31

	22
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22

	48
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48



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33

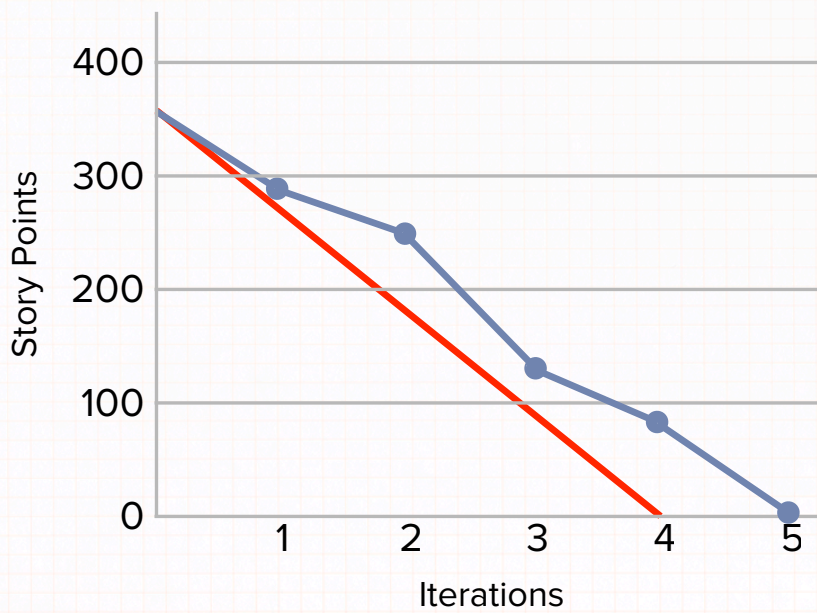
Tracking progress



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34

A relese burndown chart



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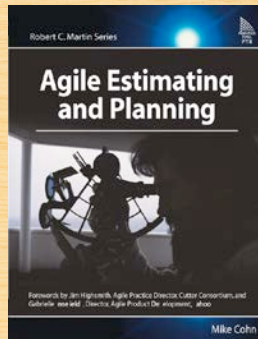
Mike Cohn

mike@mountaingoatsoftware.com

www.mountaingoatsoftware.com

twitter: mikewcohn

(888) 61-AGILE



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36