Work -> Data -> Insight -> Action

“Let’s Play Agile Coach!” with Agile Metrics Case Studies

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5/9/2016

2016 Agile Project and Portfolio Summit
Harrisburg University

Rally Software is now part of CA Technologies

Memes!

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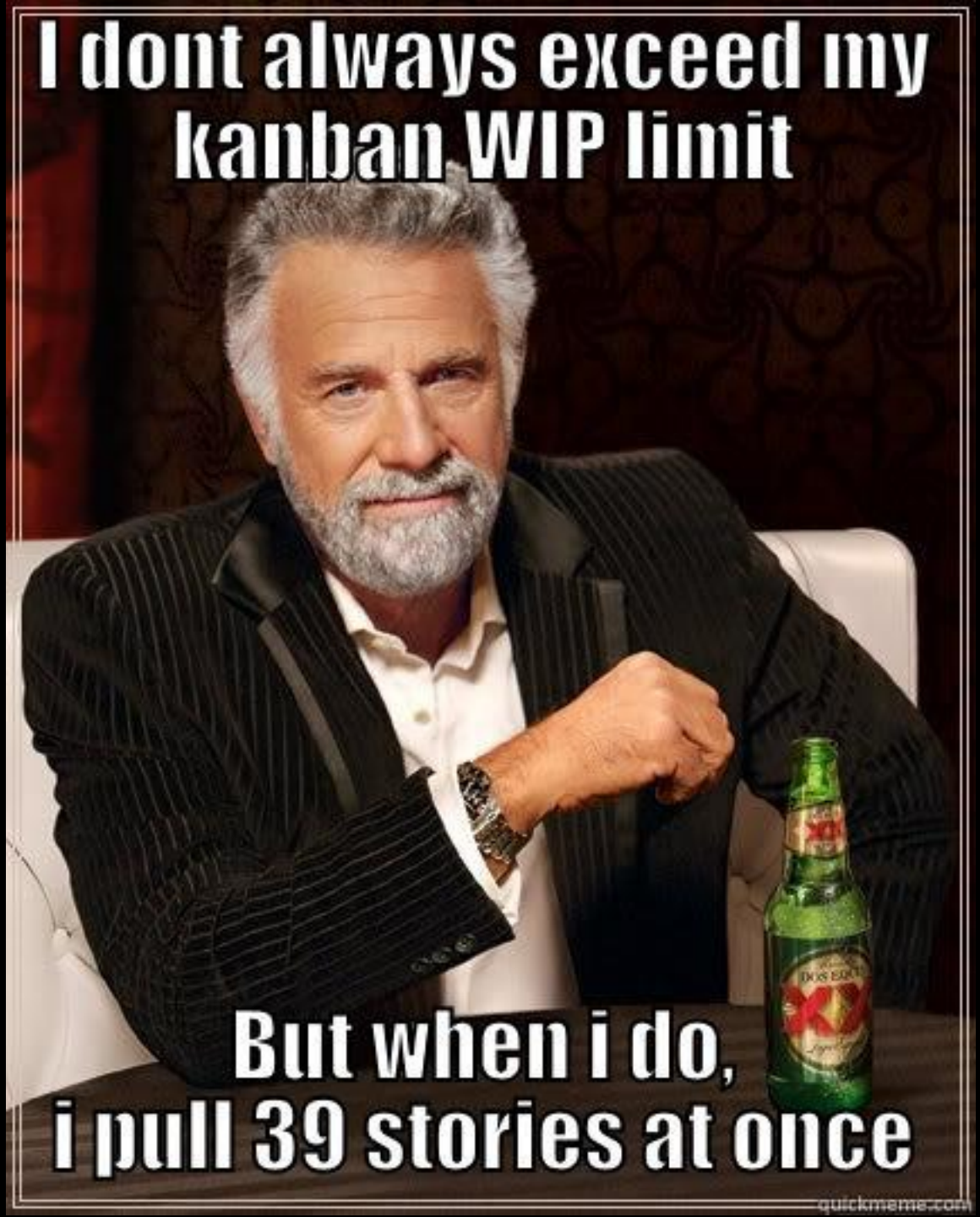

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Me (without gray hair)

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You?

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Why a presentation on metrics?

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Why a presentation on metrics?

Too many organizations don't measure anything

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Why do we measure?

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Why do we measure?

If you can’t measure it, you can’t manage it

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What are metrics for?

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What are metrics for?

Finding your problems

(aka Continuous Improvement)

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For feedback to improve your own performance

Virtue vs Sin

As a lever to drive someone else's behavior

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What's the most important measurement in Agile?

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What's the most important measurement in Agile?

Working software is the primary measure of progress.

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9,192,631,770

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Don’t be fooled by the fallacy of precision

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Let’s look at some practice metrics

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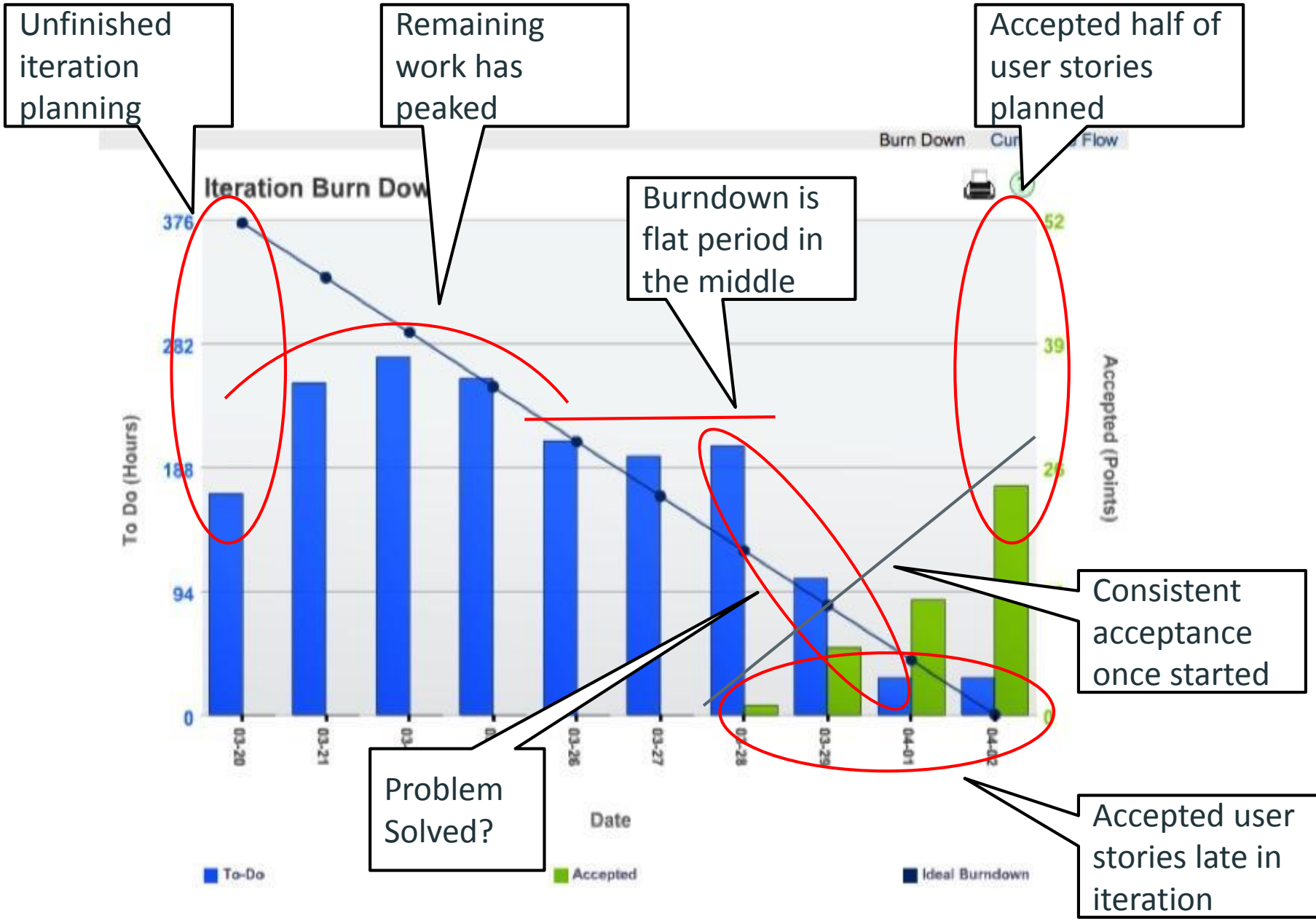

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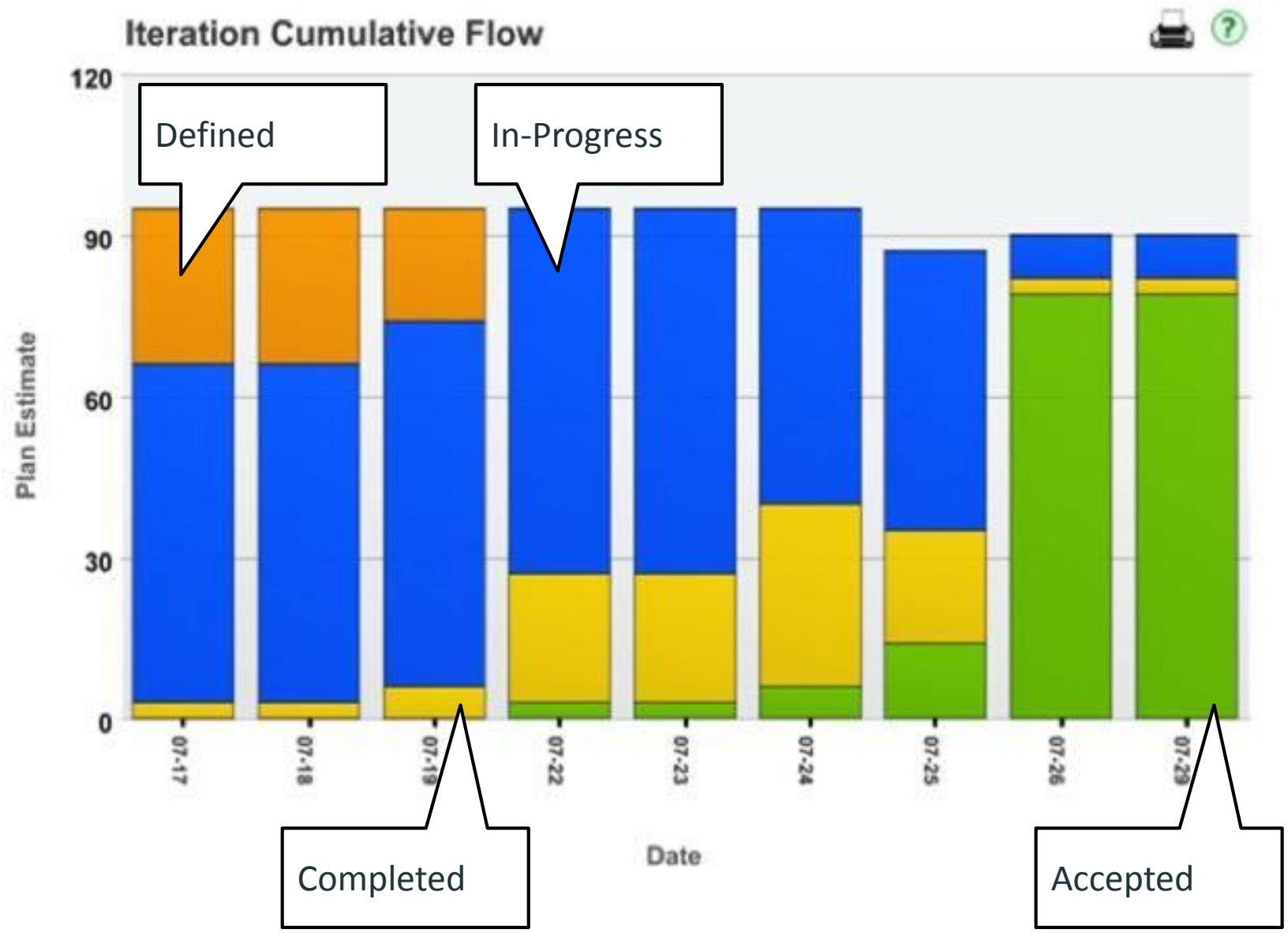

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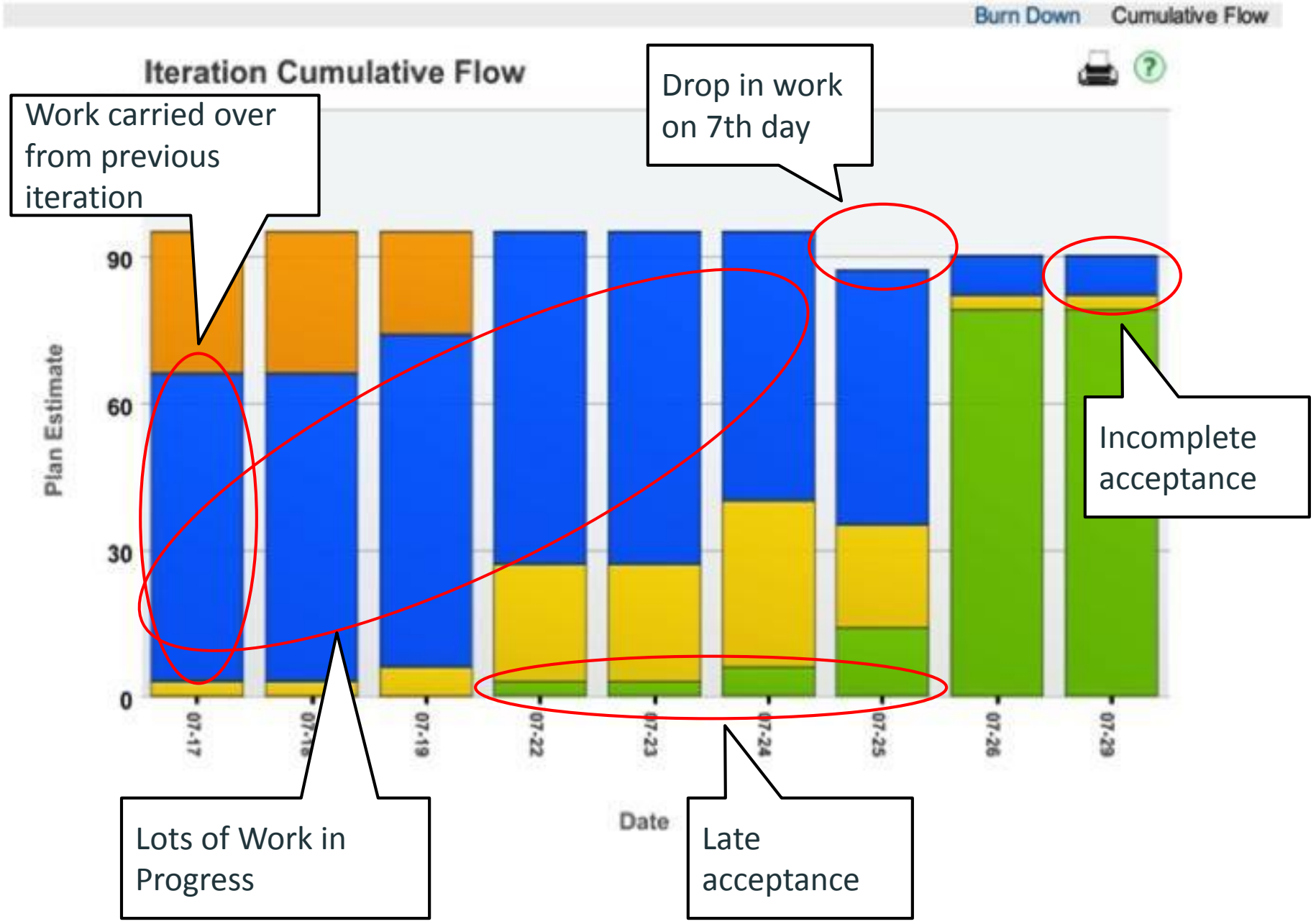

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Considerations

- You're an Agile coach
- Arrived today
- Know no history
- Have the metrics

- What do we see in the data?
- What would we recommend?

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Scenario 1

- Company 1
  - Large engineering program (15 Teams)
  - Adopted SAFe (Scaling Agile)
- Team 1 Data:
  - Velocity - Iteration 2.3 thru 5.3
  - Iteration 5.1, 5.2 & 5.3

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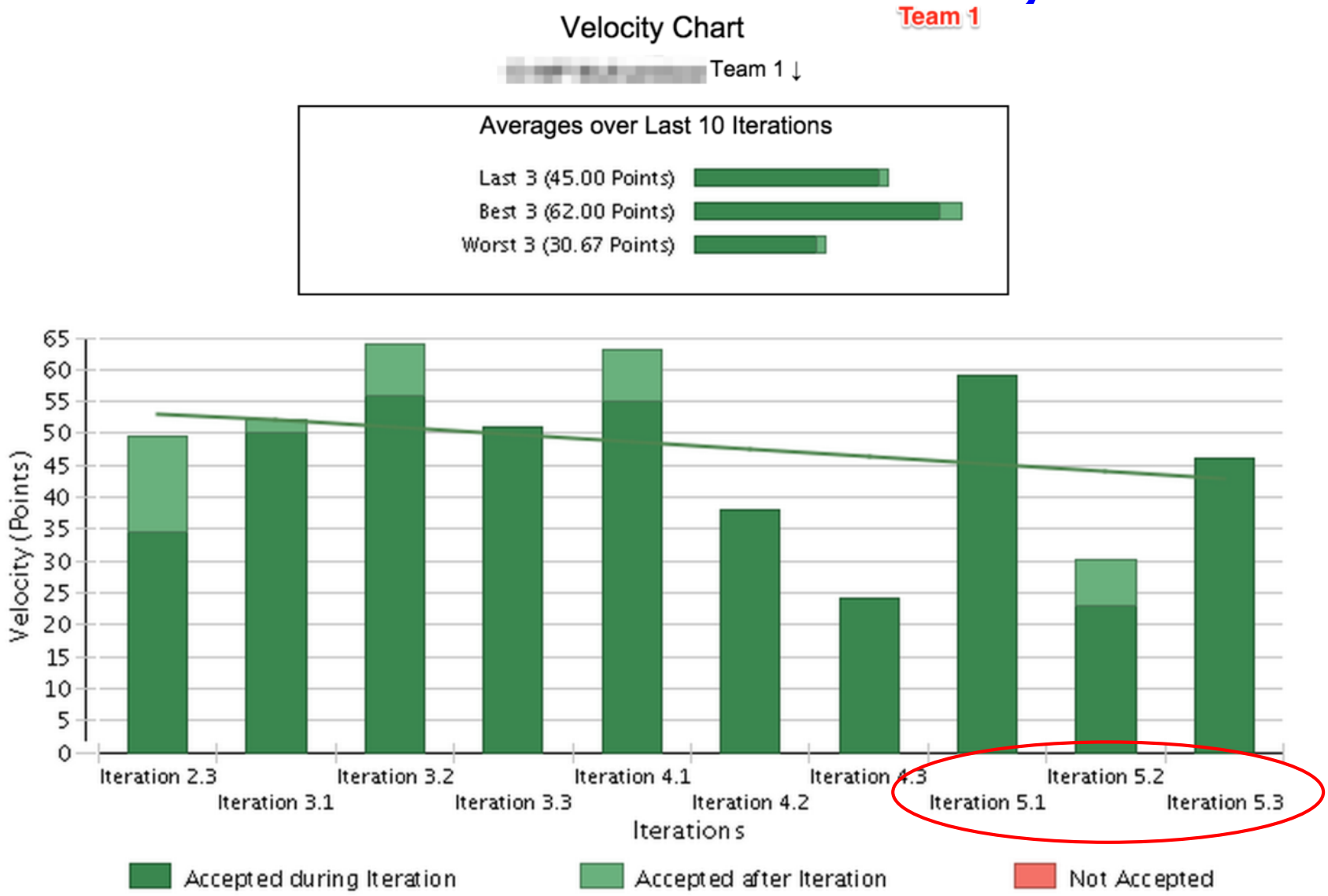
Scenario 1 - Team 1 - Velocity



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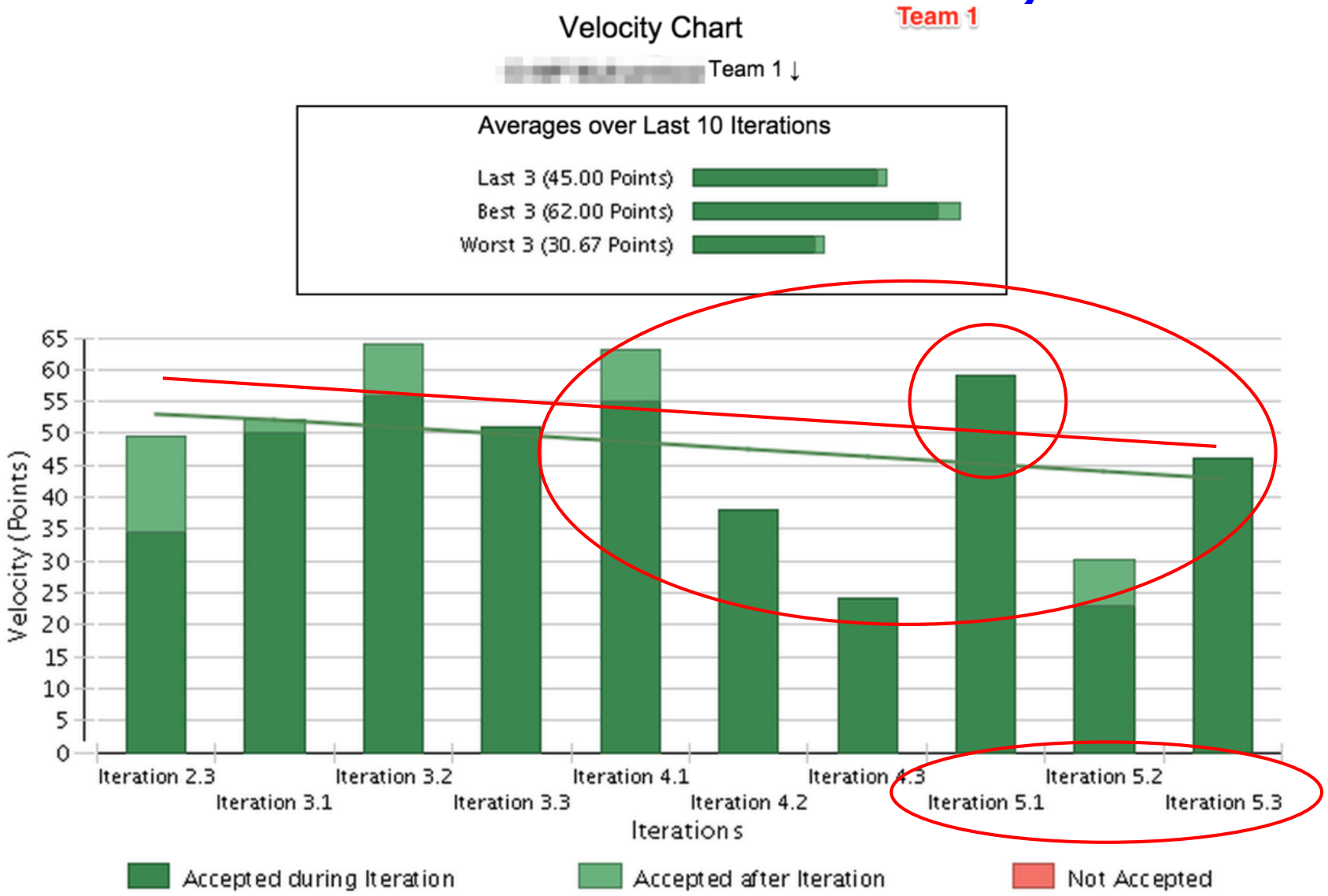
Scenario 1 - Team 1 - Velocity



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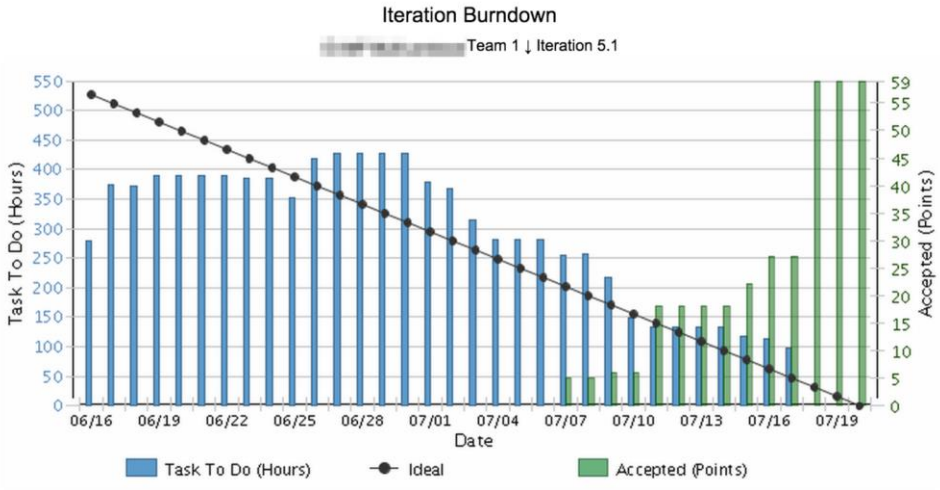
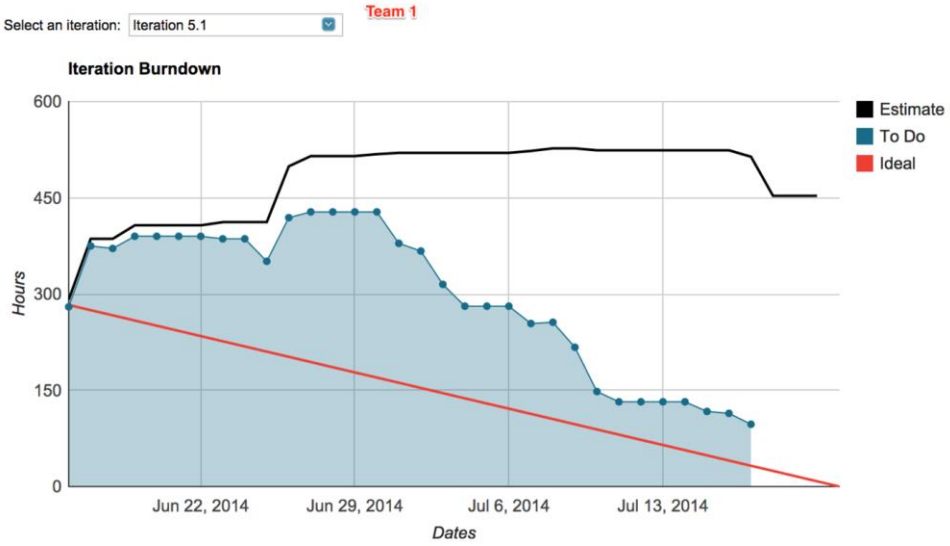
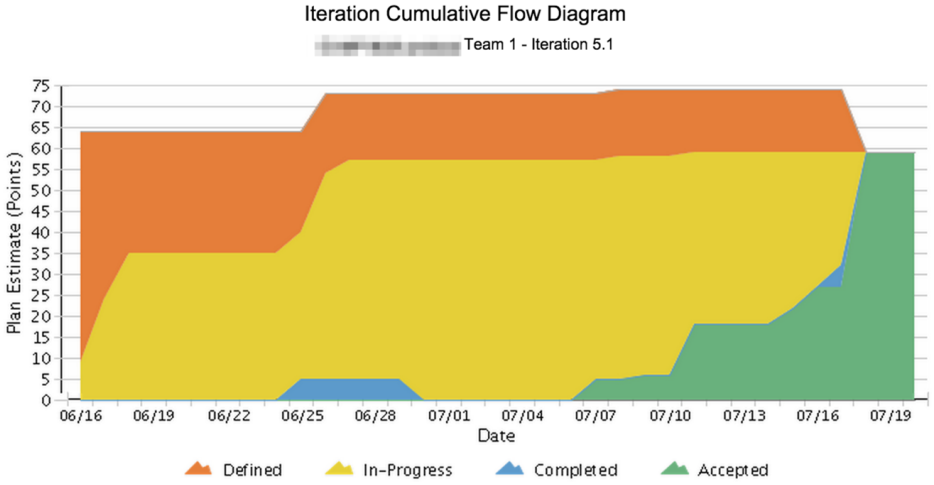
Scenario 1 - Team 1 - Iteration 5.1







06/16/2014 - 07/20/2014 (35 Days, Done)

	Count	Points
Total Added	4	17.0
Total Removed	1	9.0
Net	**3**	**8.0**

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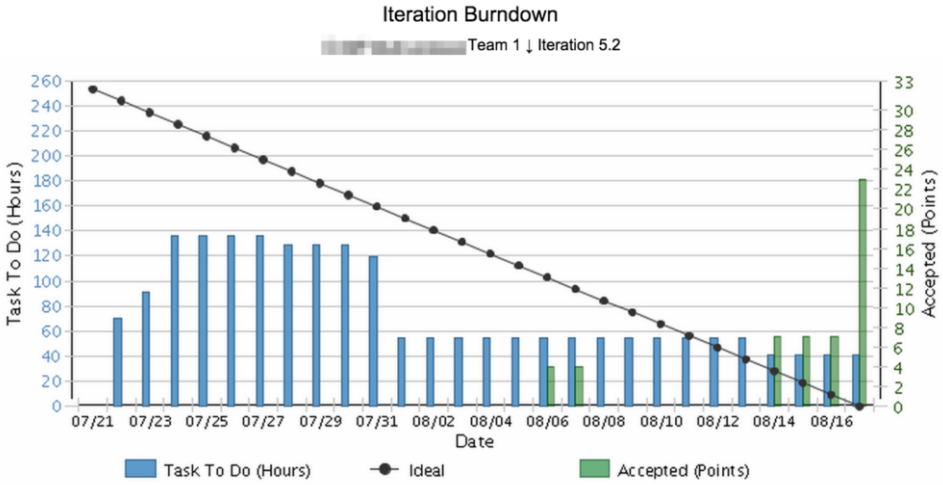
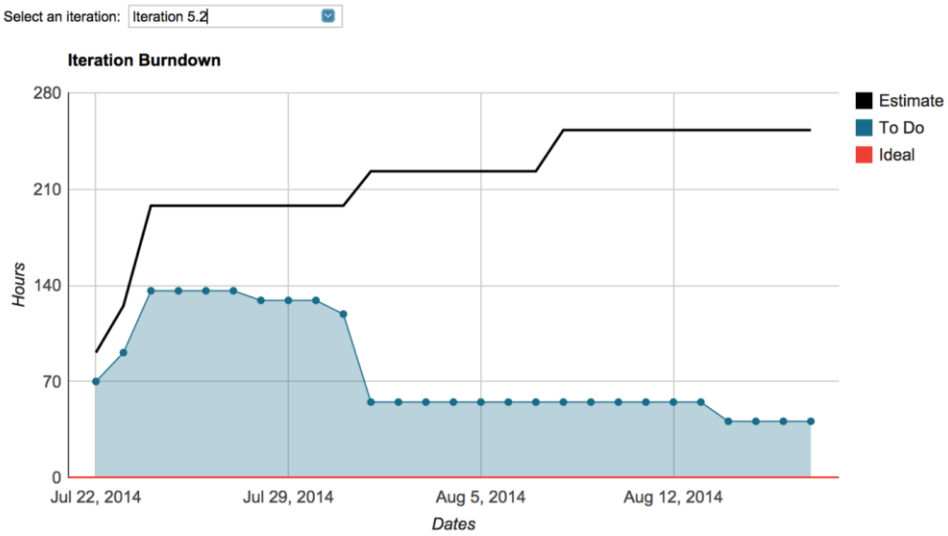
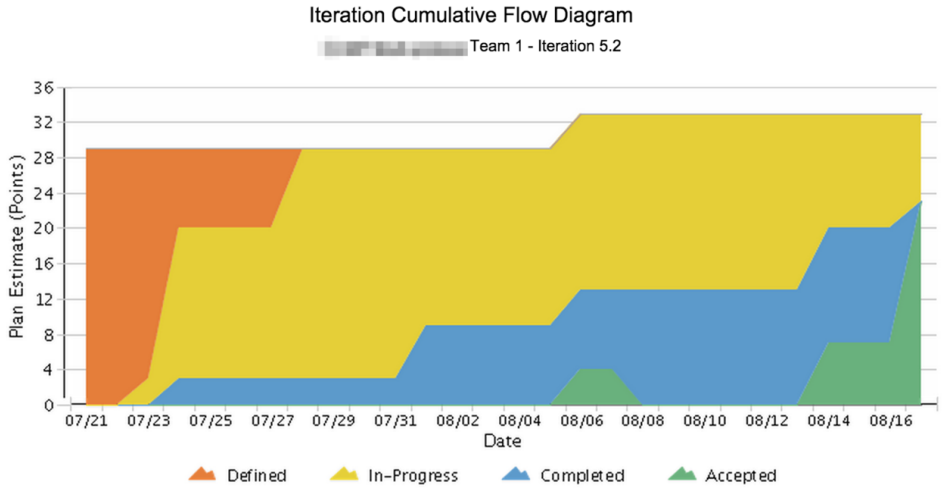
Scenario 1 - Team 1 - Iteration 5.2







07/21/2014 - 08/17/2014 (28 Days, Done)

	Count	Points
Total Added	9	22.0
Total Removed	5	14.0
Net	**4**	**8.0**

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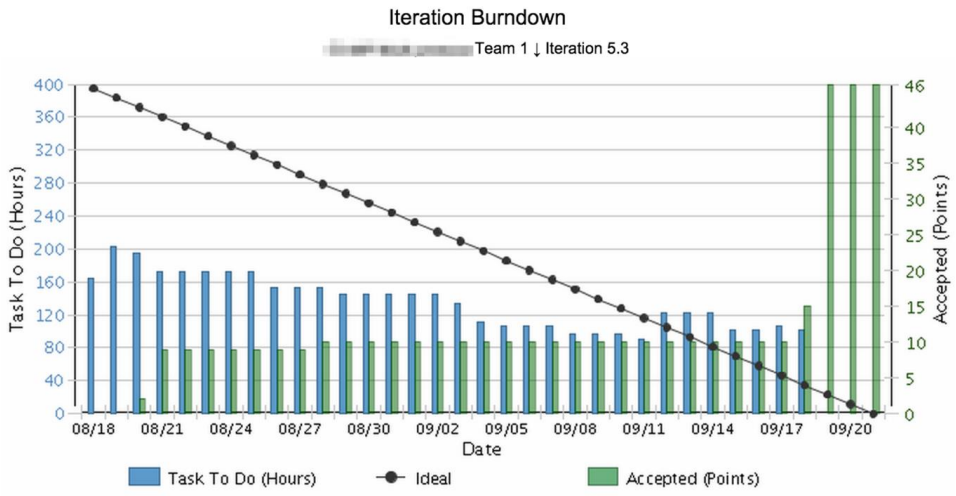
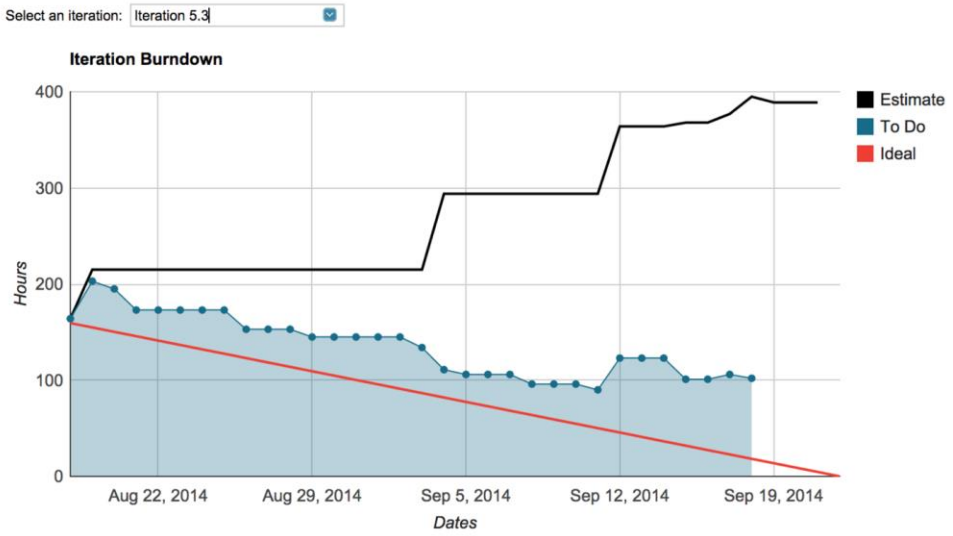
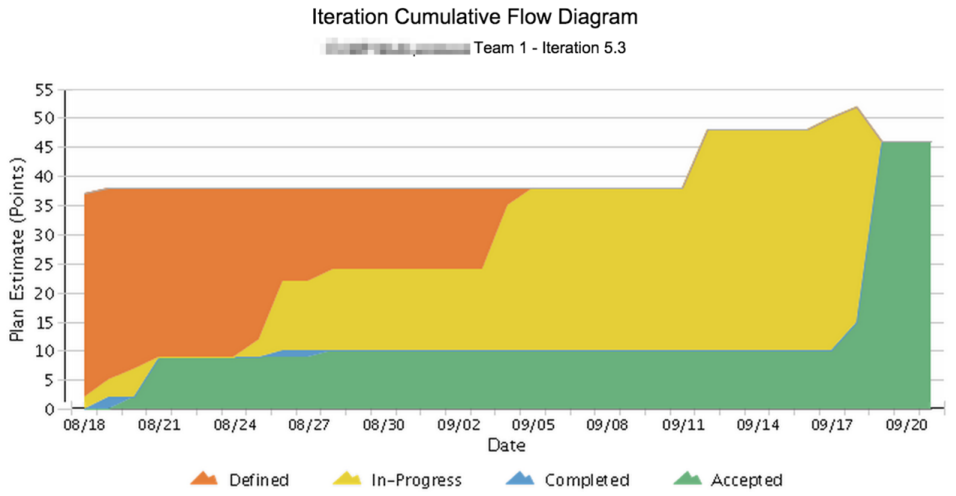
Scenario 1 - Team 1 - Iteration 5.3







08/18/2014 - 09/21/2014 (35 Days, Done)

	Count	Points
Total Added	25	55.0
Total Removed	14	28.0
Net	**11**	**27.0**

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Scenario 1 - Observations

Team 1

- Inconsistent Velocity
- Acceptance work at iteration end
- Lots of WIP
- Not planning iteration well
- Adding scope during iteration
- Changing iteration length

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Scenario 2

- Same Company 1
  - Large engineering program (15 Teams)
  - Adopted SAFe (Scaling Agile)
- Team 2 Data:
  - Velocity - Iteration 2.3 thru 5.3
  - Iteration 5.1, 5.2 & 5.3

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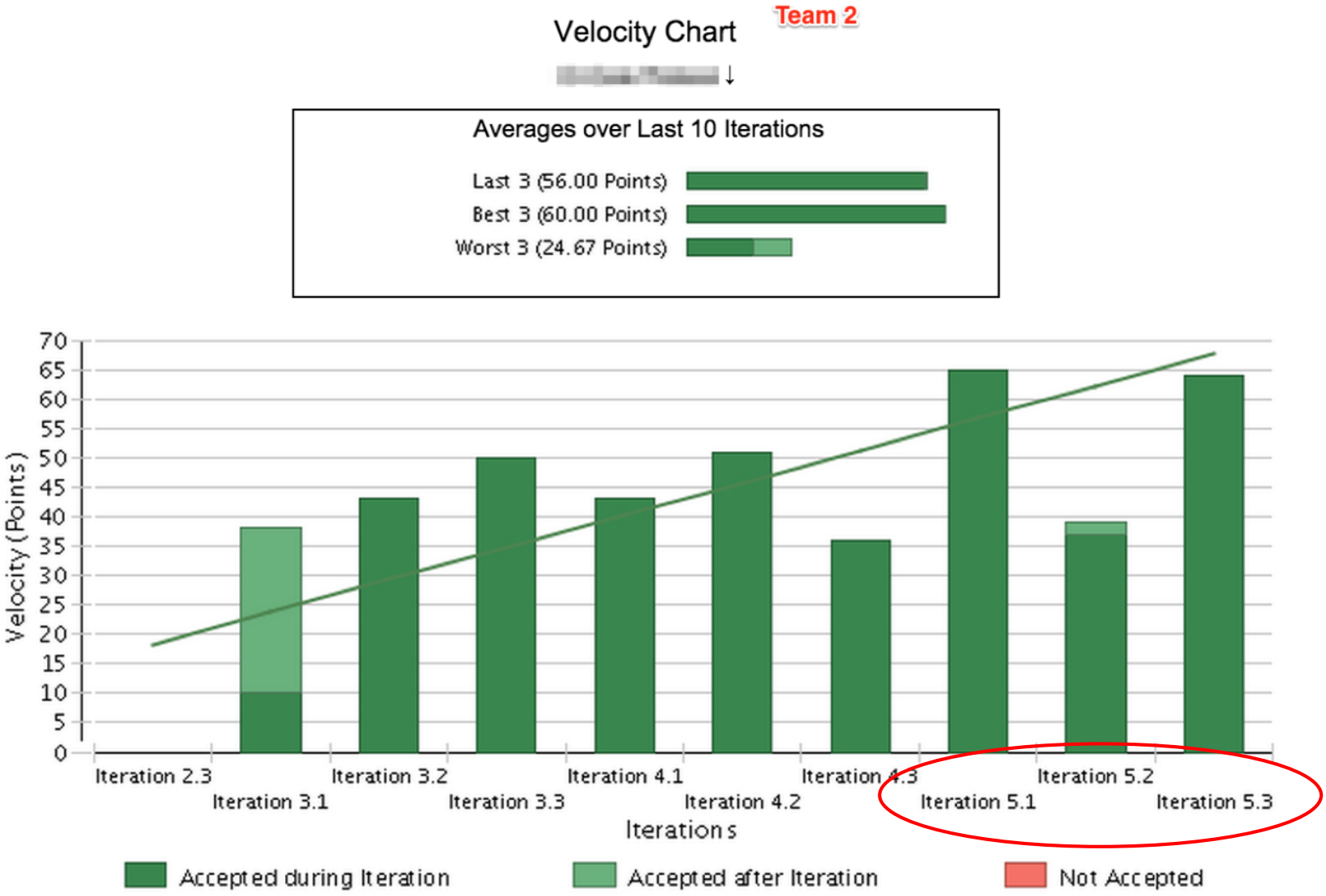
Scenario 2 - Team 2 - Velocity



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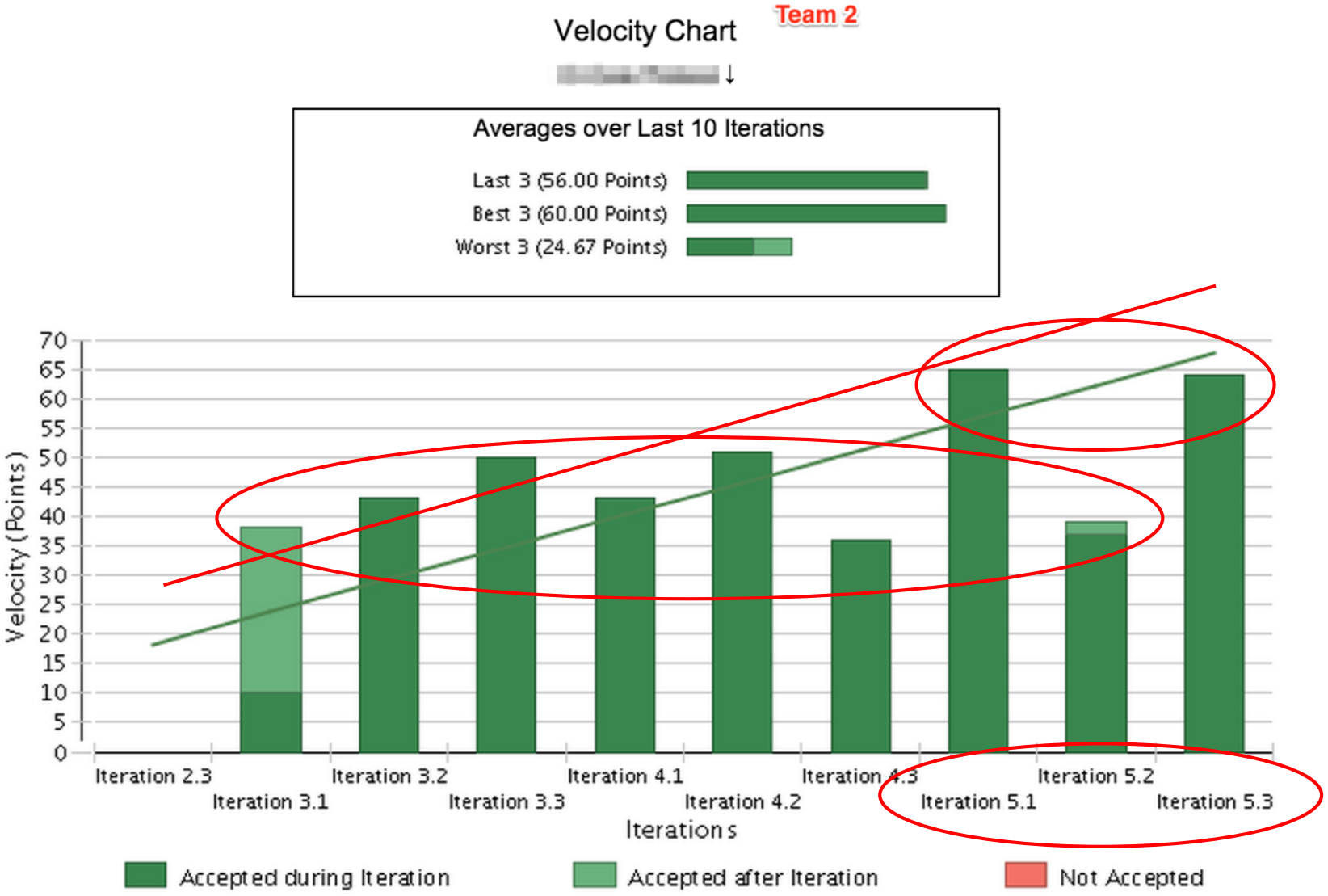
Scenario 2 - Team 2 - Velocity



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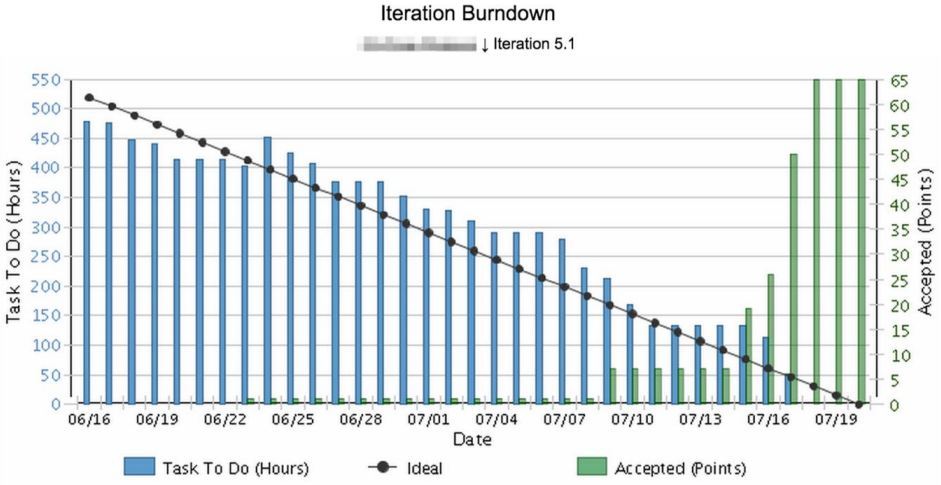
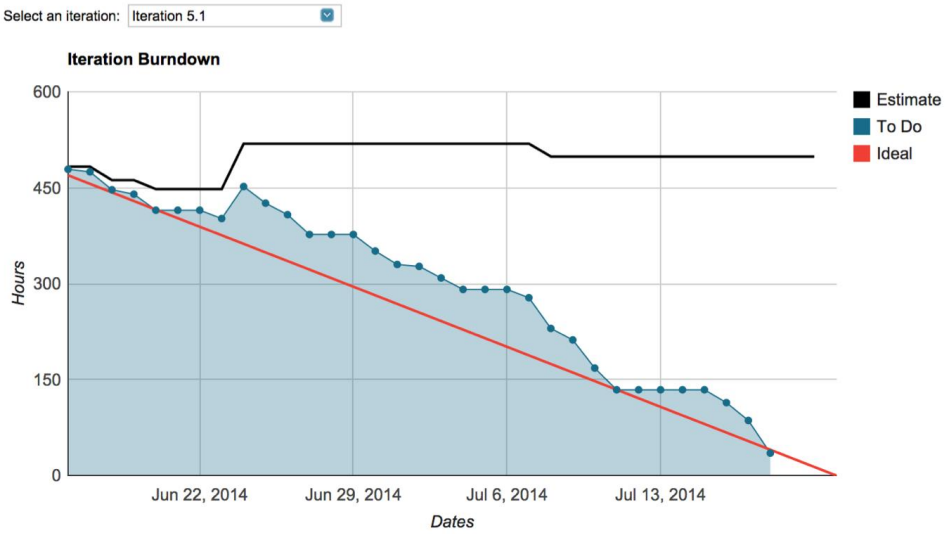
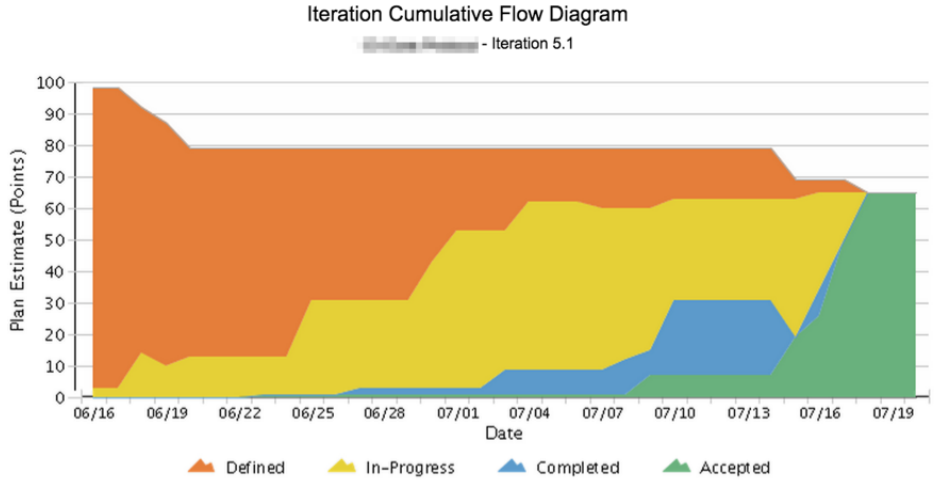
Scenario 2 - Team 2 - Iteration 5.1







06/16/2014 - 07/20/2014 (35 Days, Done)

	Count	Points
Total Added	5	13.0
Total Removed	8	24.0
Net	-3	-11.0

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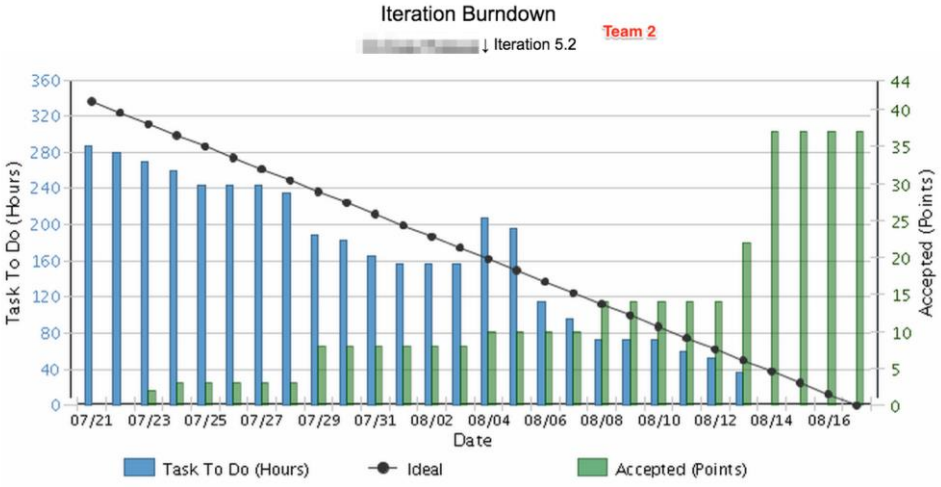
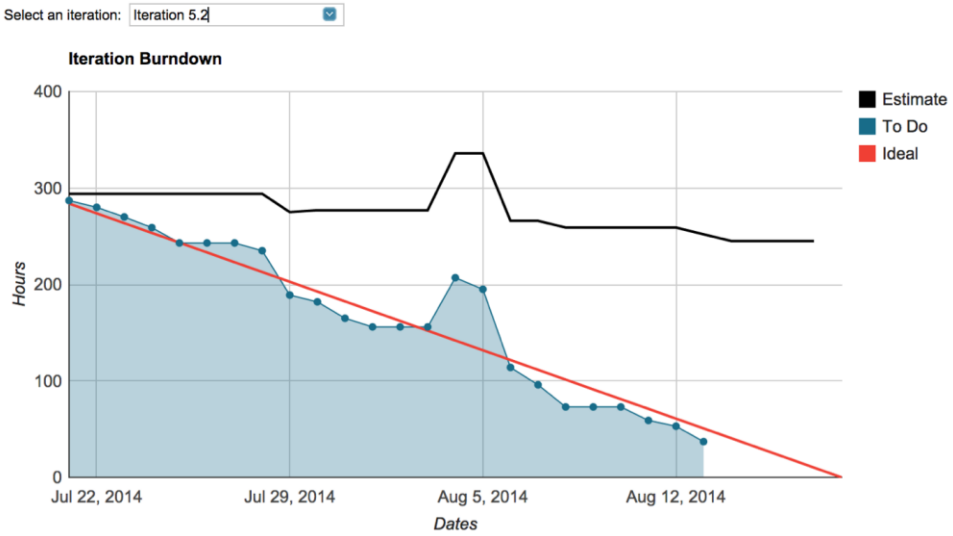
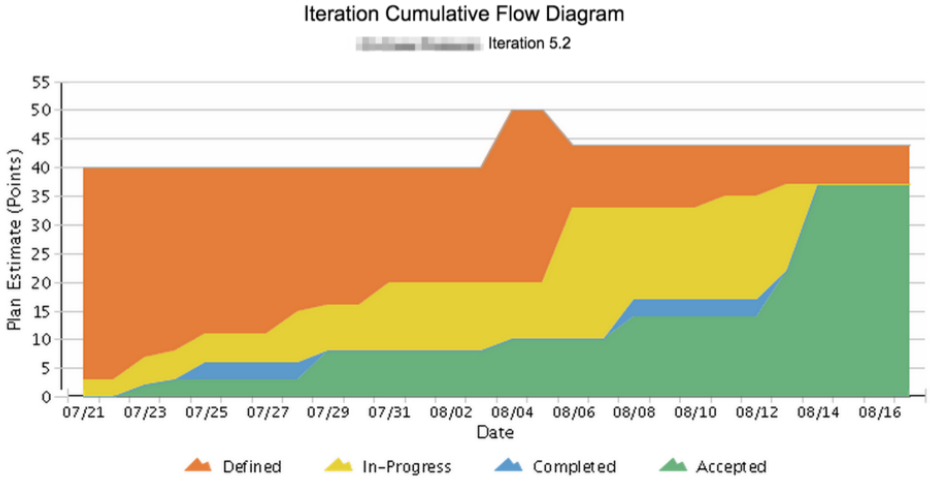
Scenario 2 - Team 2 - Iteration 5.2







07/21/2014 - 08/17/2014 (28 Days, Done)

	Count	Points
Total Added	14	57.0
Total Removed	13	50.0
Net	1	7.0

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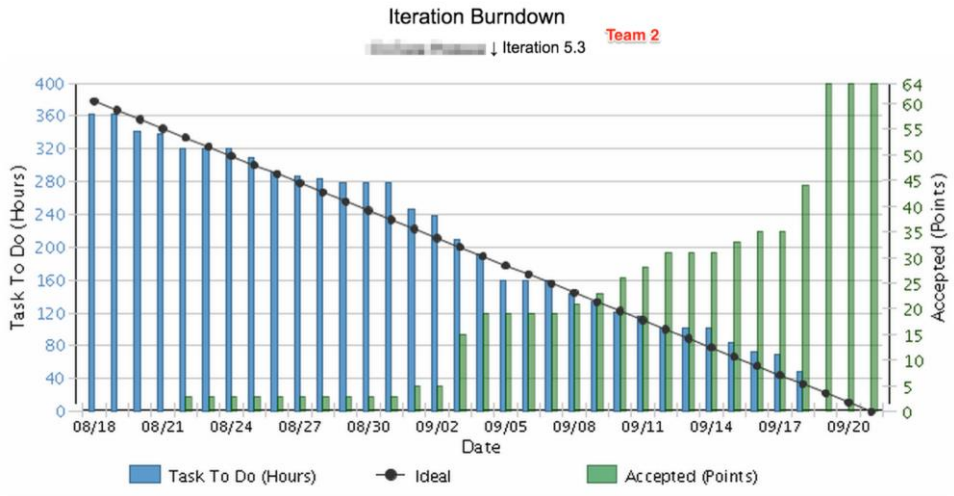
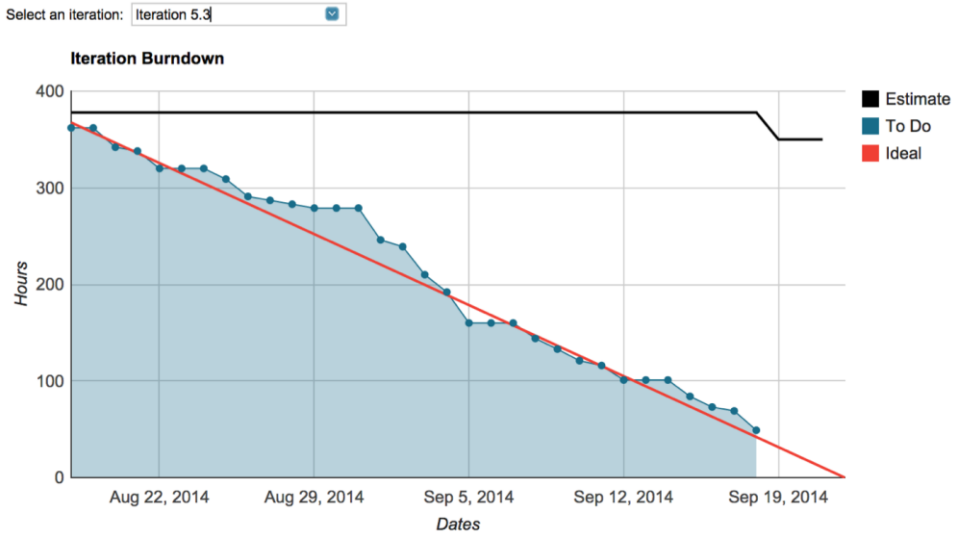
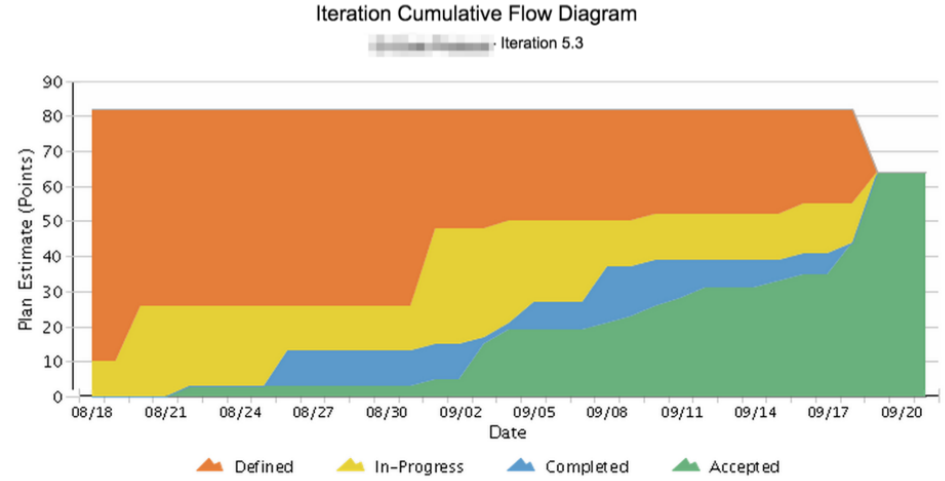
Scenario 2 - Team 2 - Iteration 5.3







08/18/2014 - 09/21/2014 (35 Days, Done)

	Count	Points
Total Added	3	16.0
Total Removed	5	21.0
Net	-2	-5.0

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Scenario 2 - Observations

Team 2

- Good velocity, trending upward
- Not entering defects
- Early acceptance of work
- Better control of WIP
- Good planning of iteration
- Consistent scope during iteration
- Changing iteration length

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Scenario 3

- Same Company 1
  - Large engineering program (15 Teams)
  - Adopted SAFe (Scaling Agile)
- Team 1 vs 2 Data:
  - Impact of changing timebox length

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When are these the same?

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When are these the same?

/ hour

/ hour and a half

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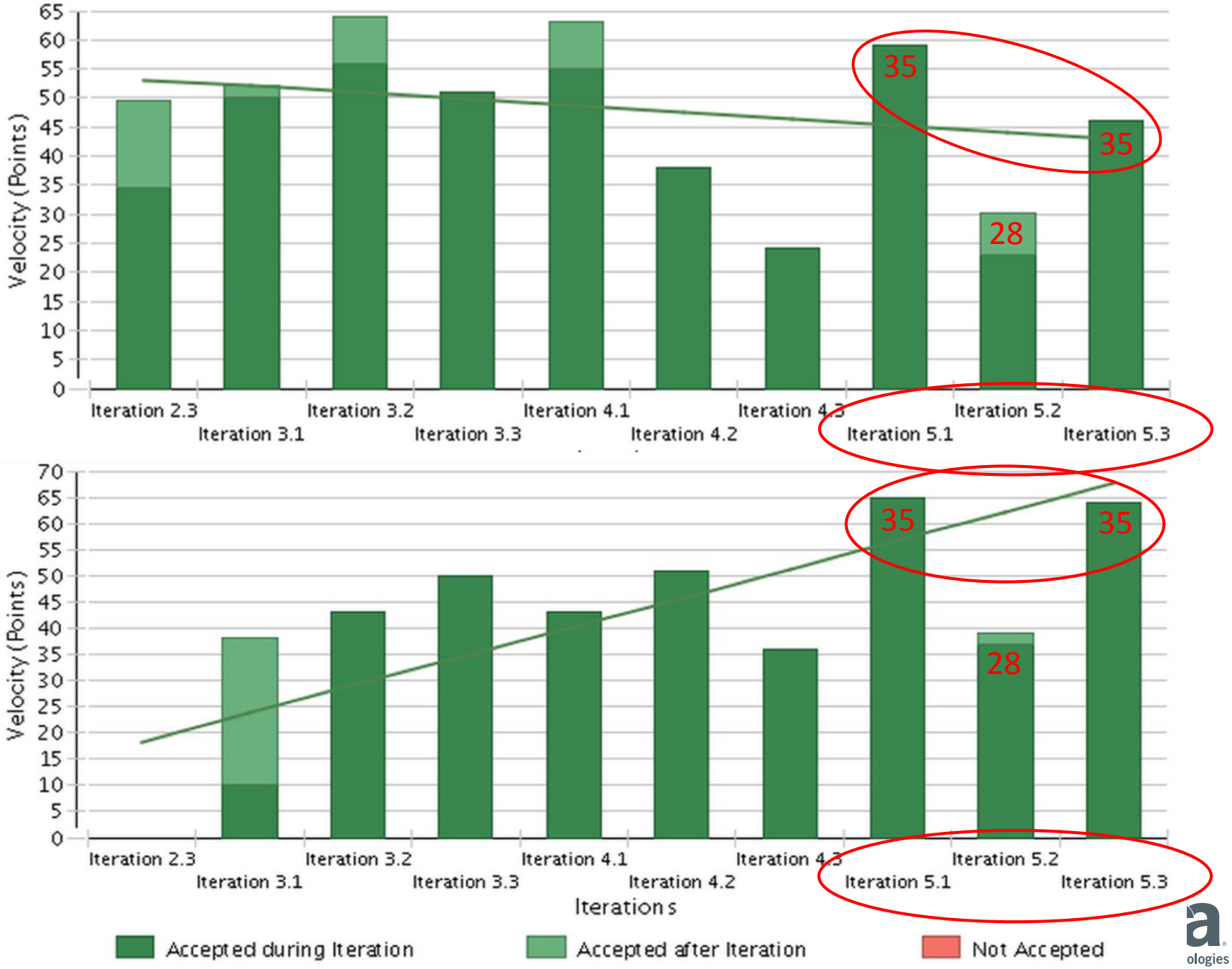
Velocity (Points)
65
60
55
50
45
40
35
30
25
20
15
10
5
0
35
28
35
Iteration 2.3
Iteration 3.1
Iteration 3.2
Iteration 3.3
Iteration 4.1
Iteration 4.2
Iteration 4.3
Iteration 5.1
Iteration 5.2
Iteration 5.3
Velocity (Points)
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
35
28
35
Iteration 2.3
Iteration 3.1
Iteration 3.2
Iteration 3.3
Iteration 4.1
Iteration 4.2
Iteration 4.3
Iteration 5.1
Iteration 5.2
Iteration 5.3
Iterations
Accepted during Iteration
Accepted after Iteration
Not Accepted

Scenario 3 - Observations

Team 1 vs 2

- DON’T CHANGE TIMEBOX!!!

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Scenario 4

- New Company!!!
  - Single Agile Team
  - Practicing Agile for 2 years
  - Dedicated ScrumMaster
  - Distributed team
  - 2 wk sprints; 3 mo releases
- Single Team Data:
  - Single Iteration
  - Entire Release

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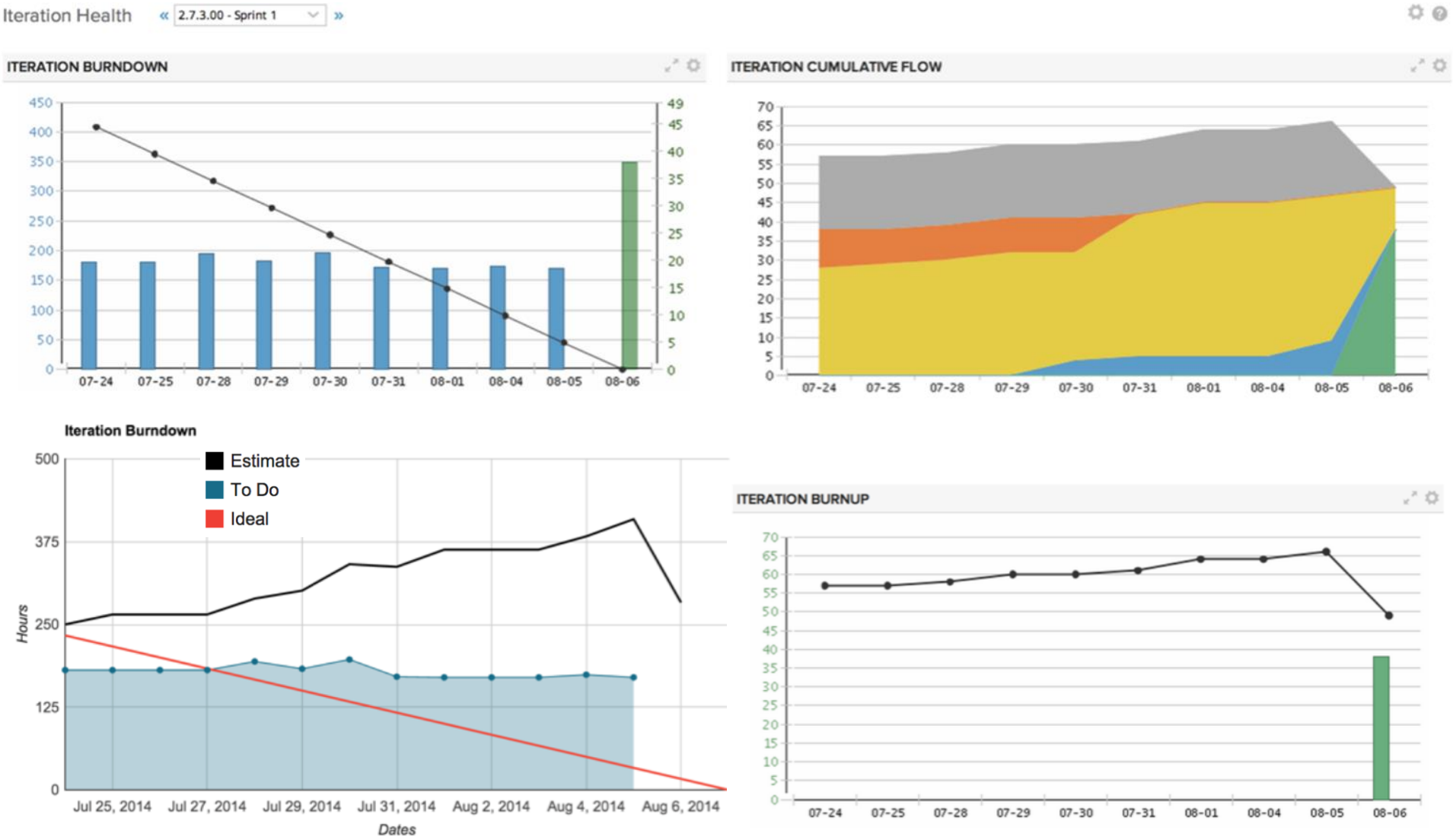
Scenario 4 - Iteration



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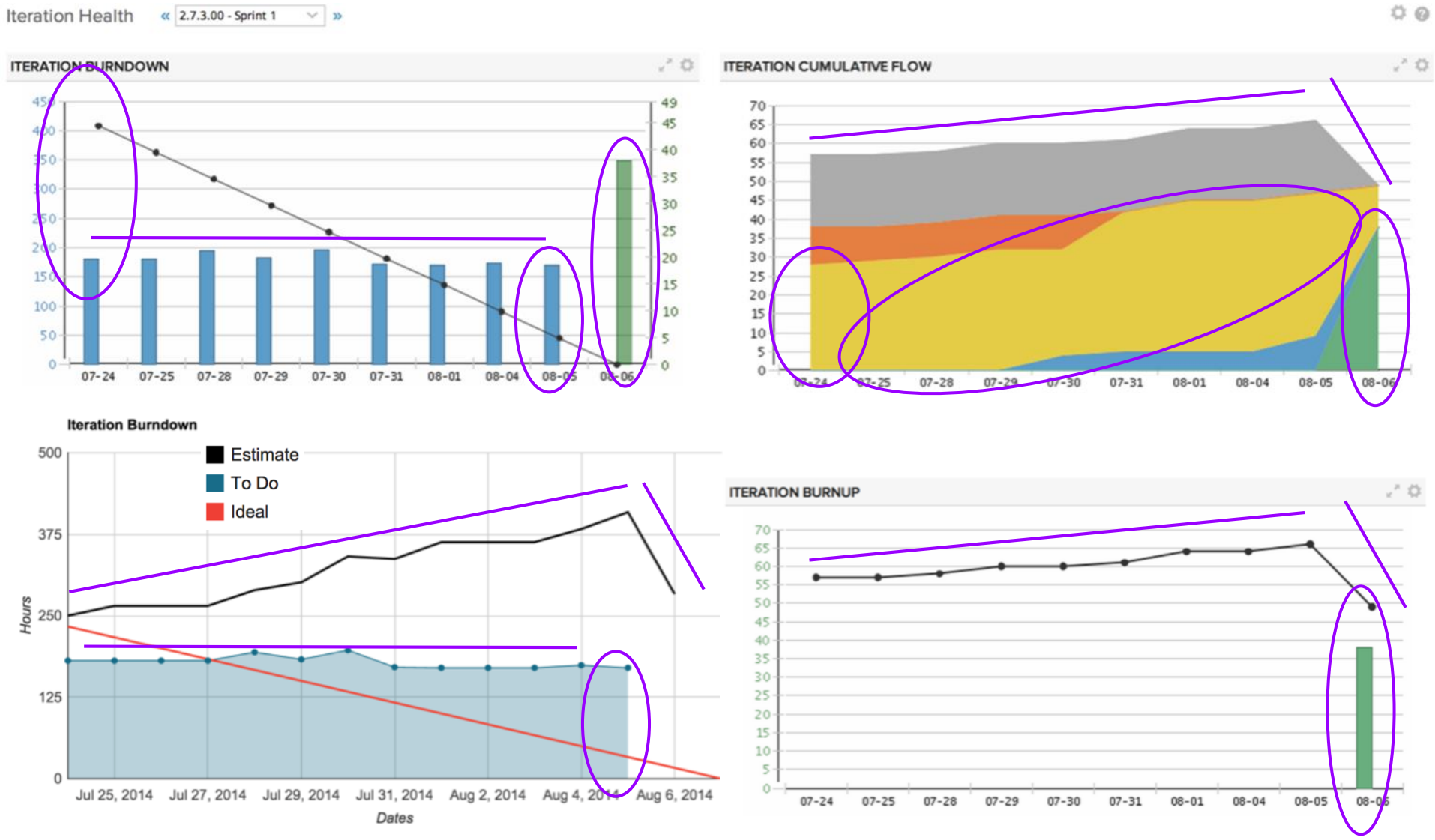
Scenario 4 - Iteration



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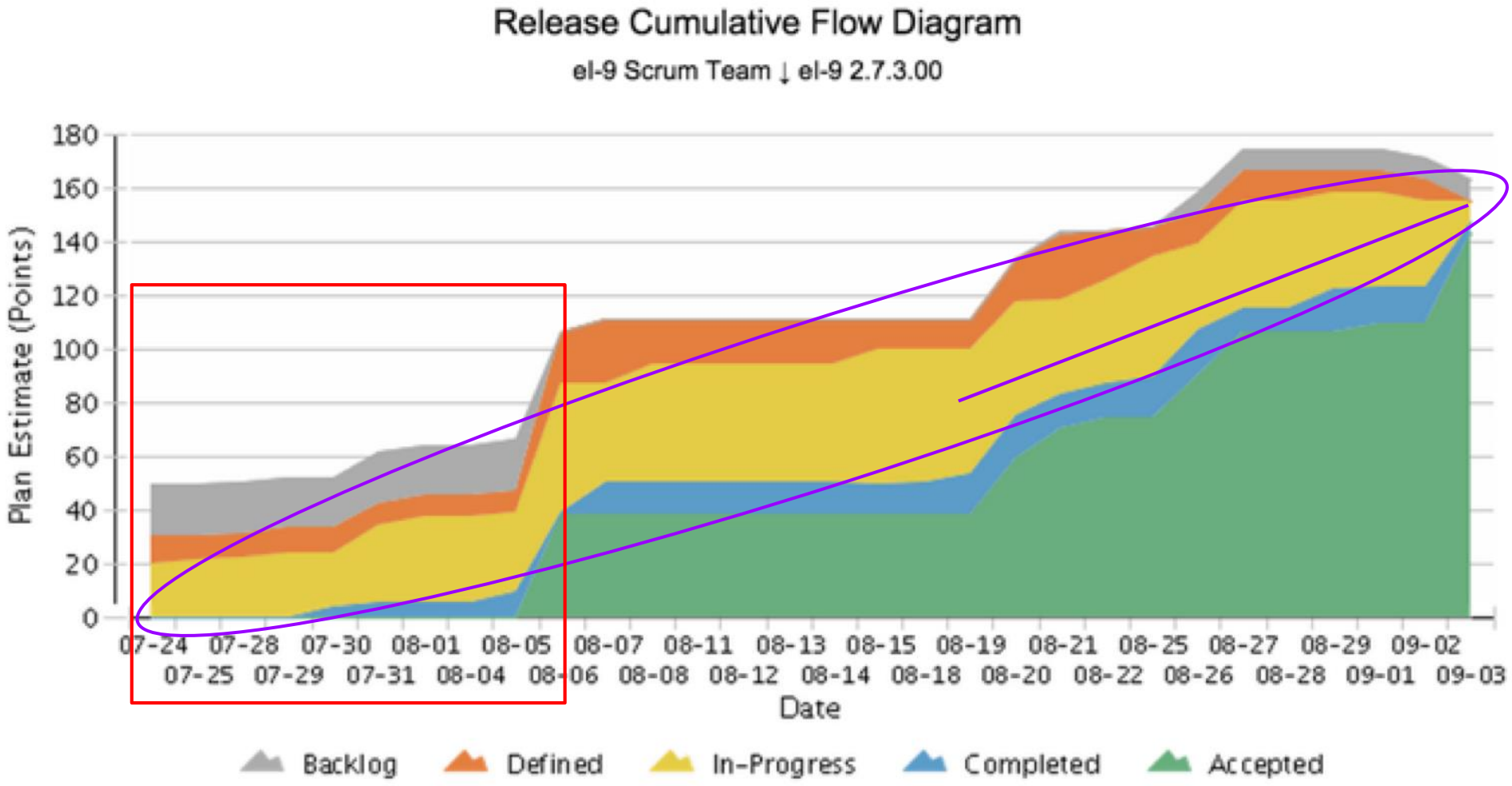
Scenario 4 - Release



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Scenario 4 - Observations

Iteration

- Task actuals increase
- Task burndown flat
- Late acceptance
- Work carrying over from previous iterations
- Unfinished work moved to next iteration
- Iterations are consistently over committed
- Iterations velocity is consistent, but obviously lower than what the scope of the release is.

Release

- Shows the inconsistent nature of acceptance and late acceptance.
- Release burndown depicts that work is getting done at the same rate as it is being added.
- However, there is a gap between remaining and scope at the end of the release.

What would we recommend?

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Scenario 5 - Expert Level

- New-New Company!!!
  - Single Agile Team
  - Practicing Agile for 2 years
  - Dedicated ScrumMaster
  - 2 wk sprints; 3 mo releases
- Single Team Data:
  - Single Iteration
  - Entire Release

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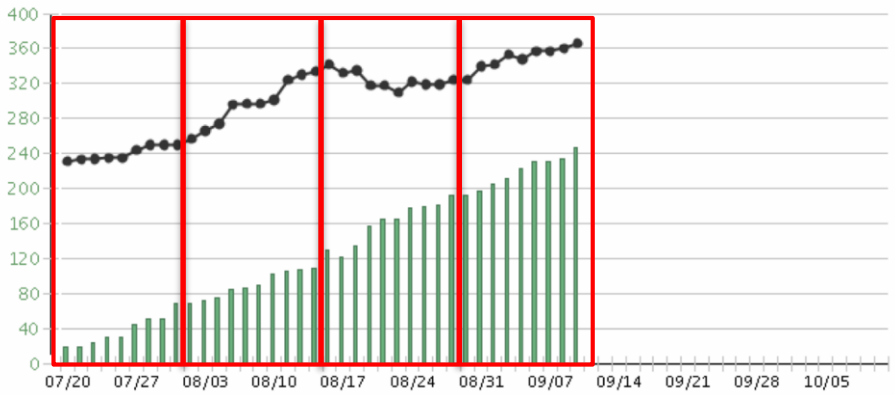
Scenario 5 - Expert Level

OUR FEATURES

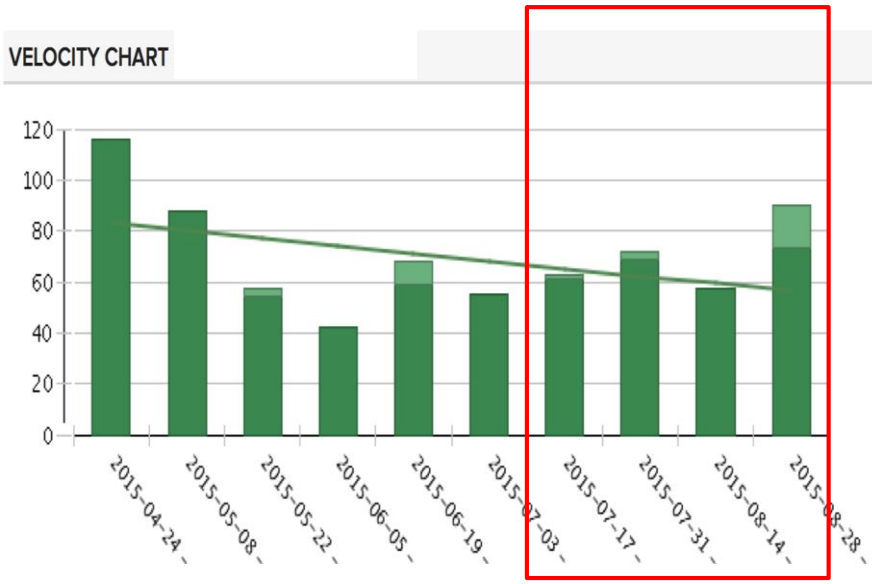
+ Add New | Filter by Owner

RANK	ID	NAME	% DONE BY STORY COUNT	% DONE BY STORY PLAN ESTIMATE
	F8799	ALM - Ahoy	65%	57%
	F9068	Generate Object Change Events from ALM	60%	87%
	F9267	Aggregration Endpoints for Team Planning and Release Tracking	50%	50%
	F9514	New WSAPI - Do the Deux	57%	67%
	F9861	ALM - Unplanned Maintenance Q3	65%	64%

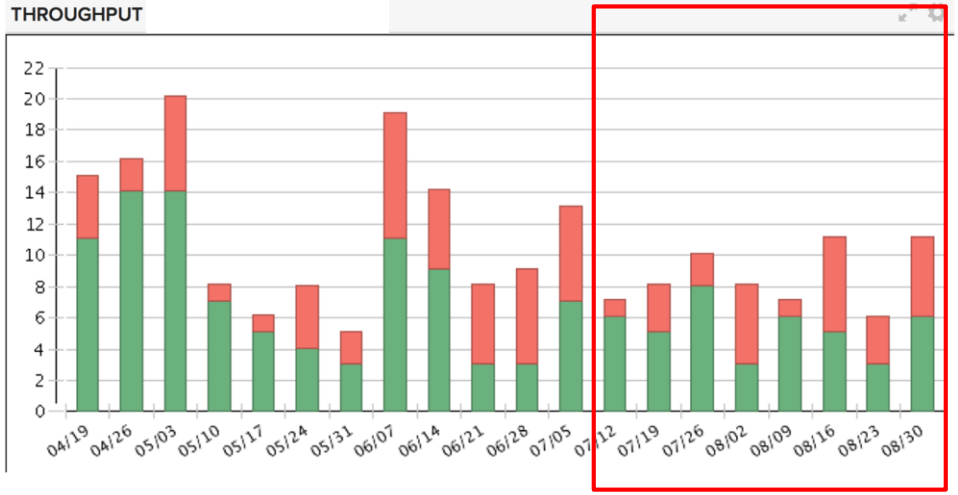
RELEASE BURNUP



VELOCITY CHART



THROUGHPUT



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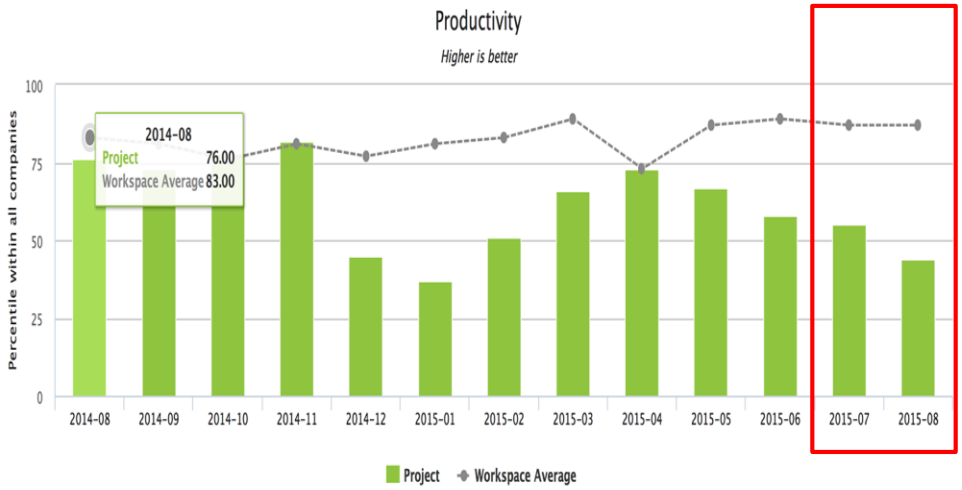
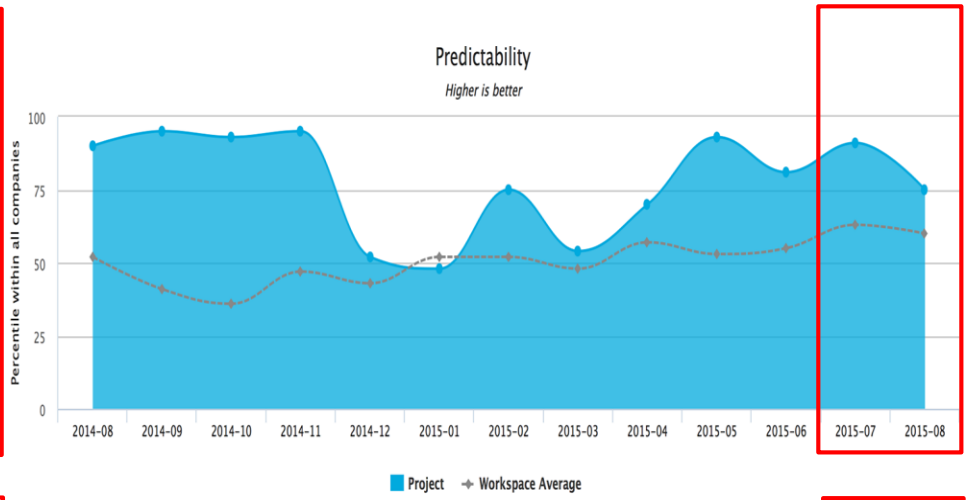
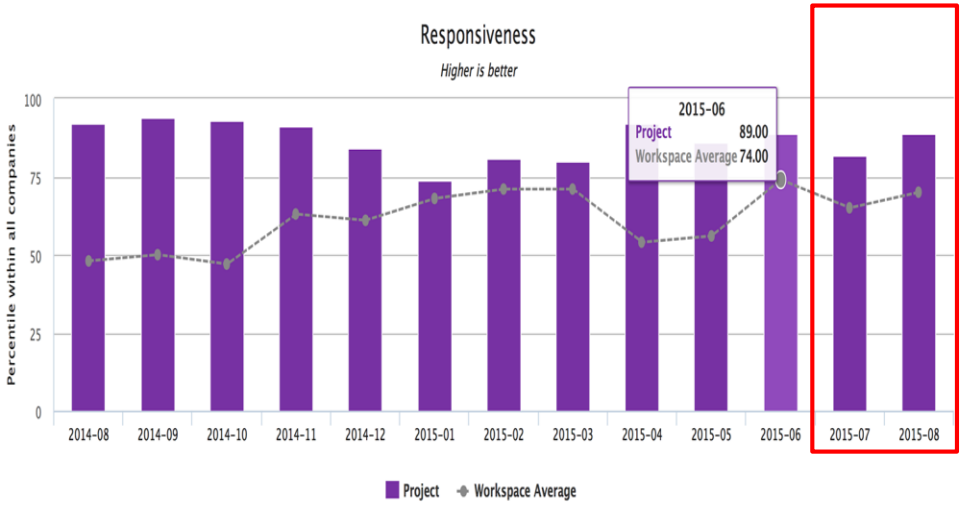
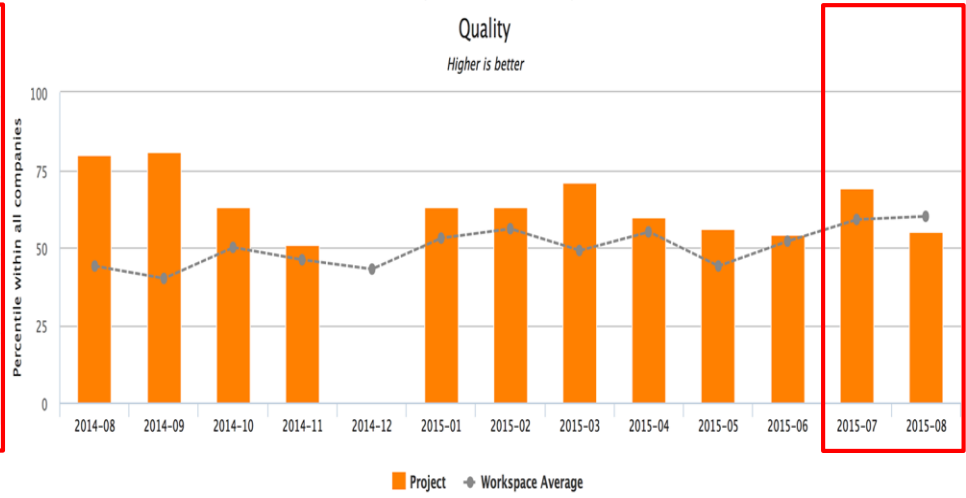
Scenario 5 - Performance Analytics









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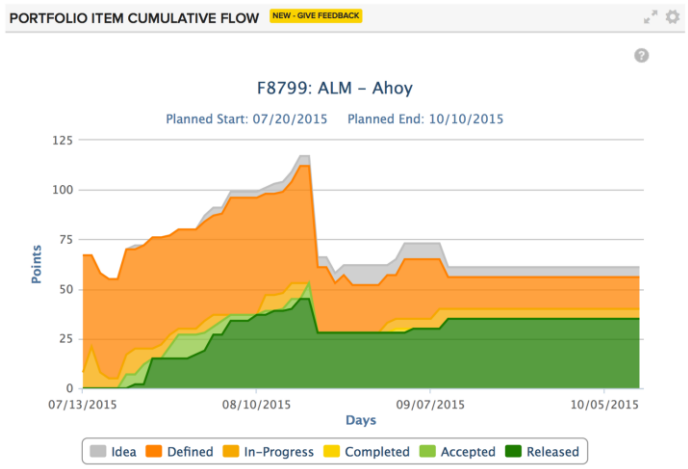
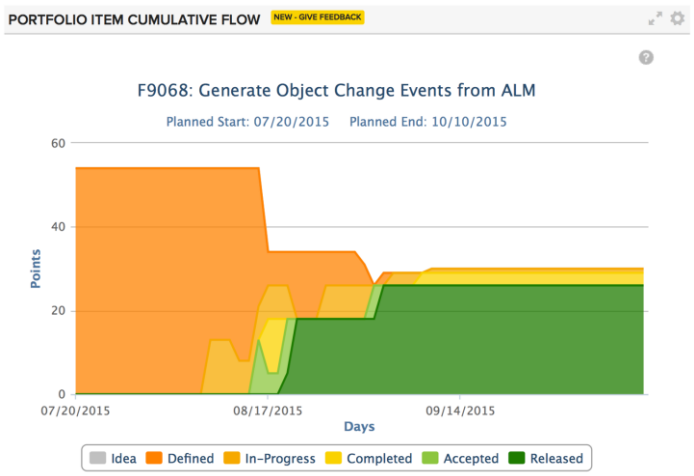
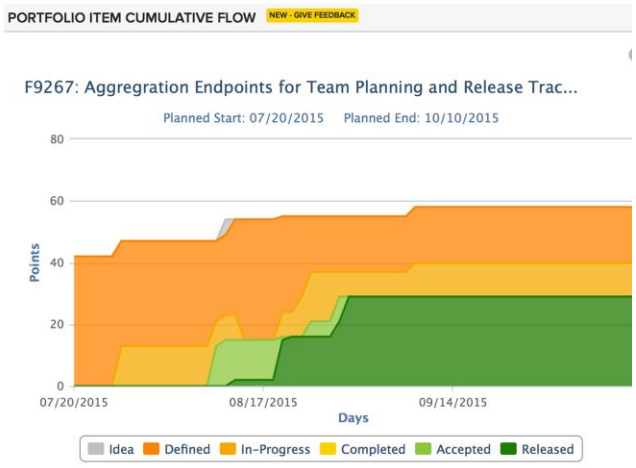
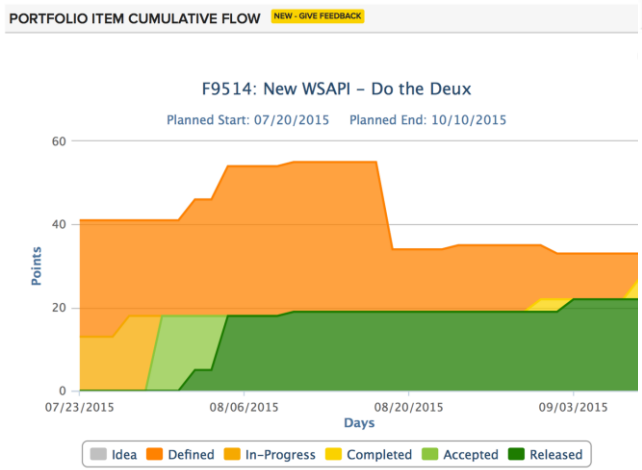
Scenario 5

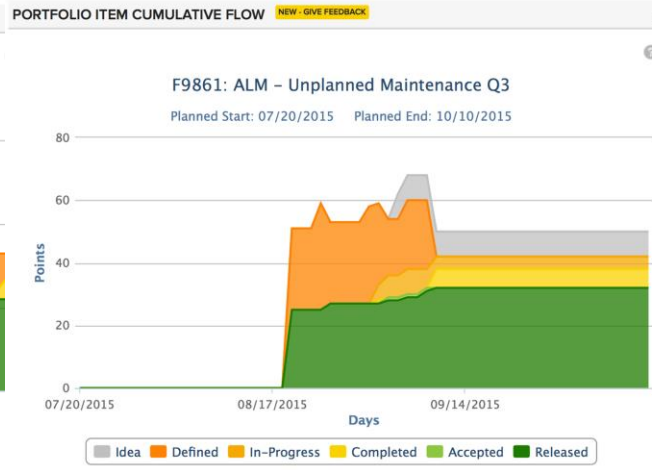
ID	NAME	% DONE BY STORY COUNT	% DONE BY STORY PLAN ESTIMATE
F8799	ALM - Ahoy	65%	57%
F9068	Generate Object Change Events from ALM	60%	87%
F9267	Aggregation Endpoints for Team Planning and Release Tracking	50%	50%
F9514	New WSAPI - Do the Deux	57%	67%
F9861	ALM - Unplanned Maintenance Q3	65%	64%











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Scenario 5 - Observations

What would we recommend?

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How do I get metrics like that?

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Estimation!

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STORY POINTS

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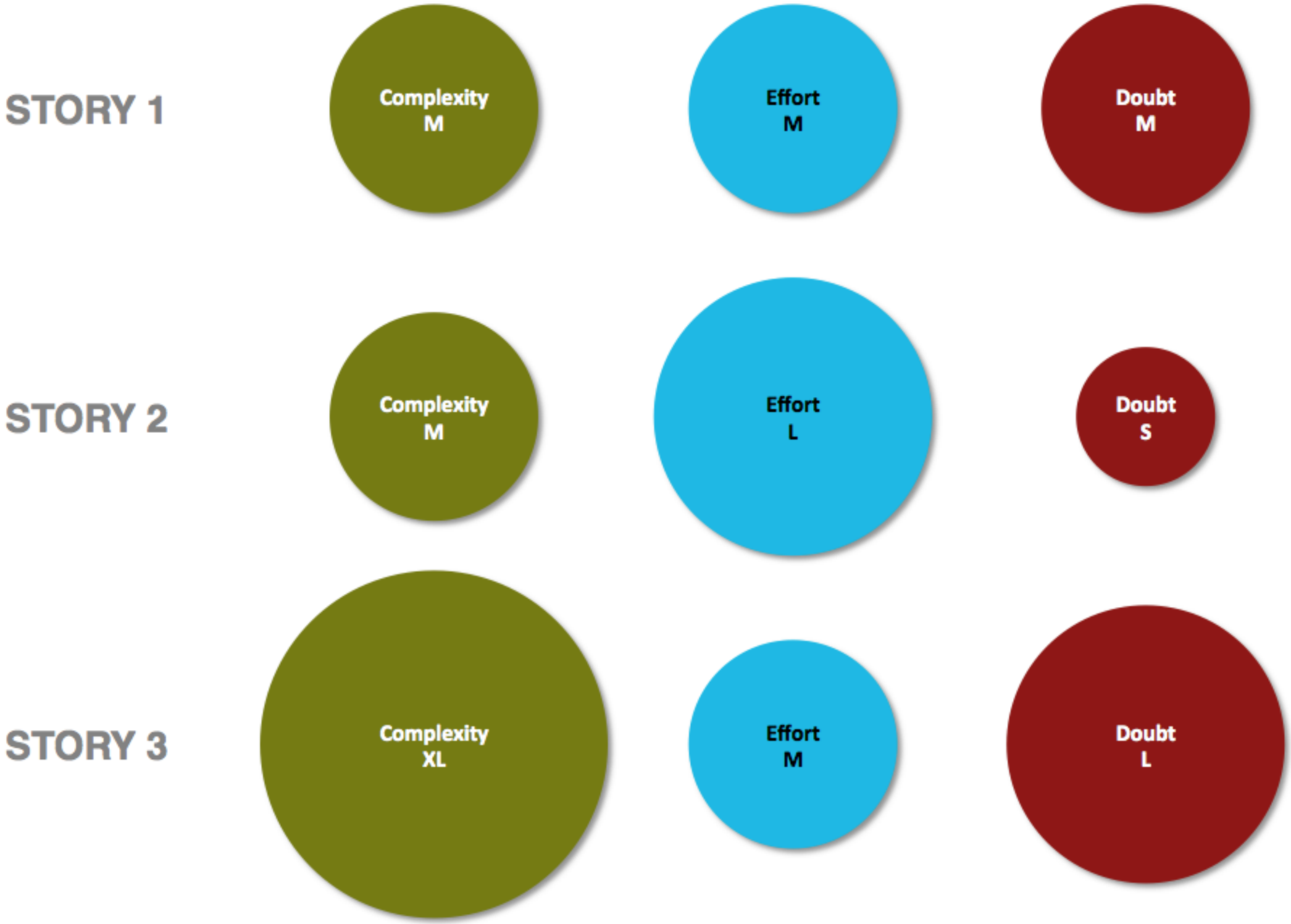

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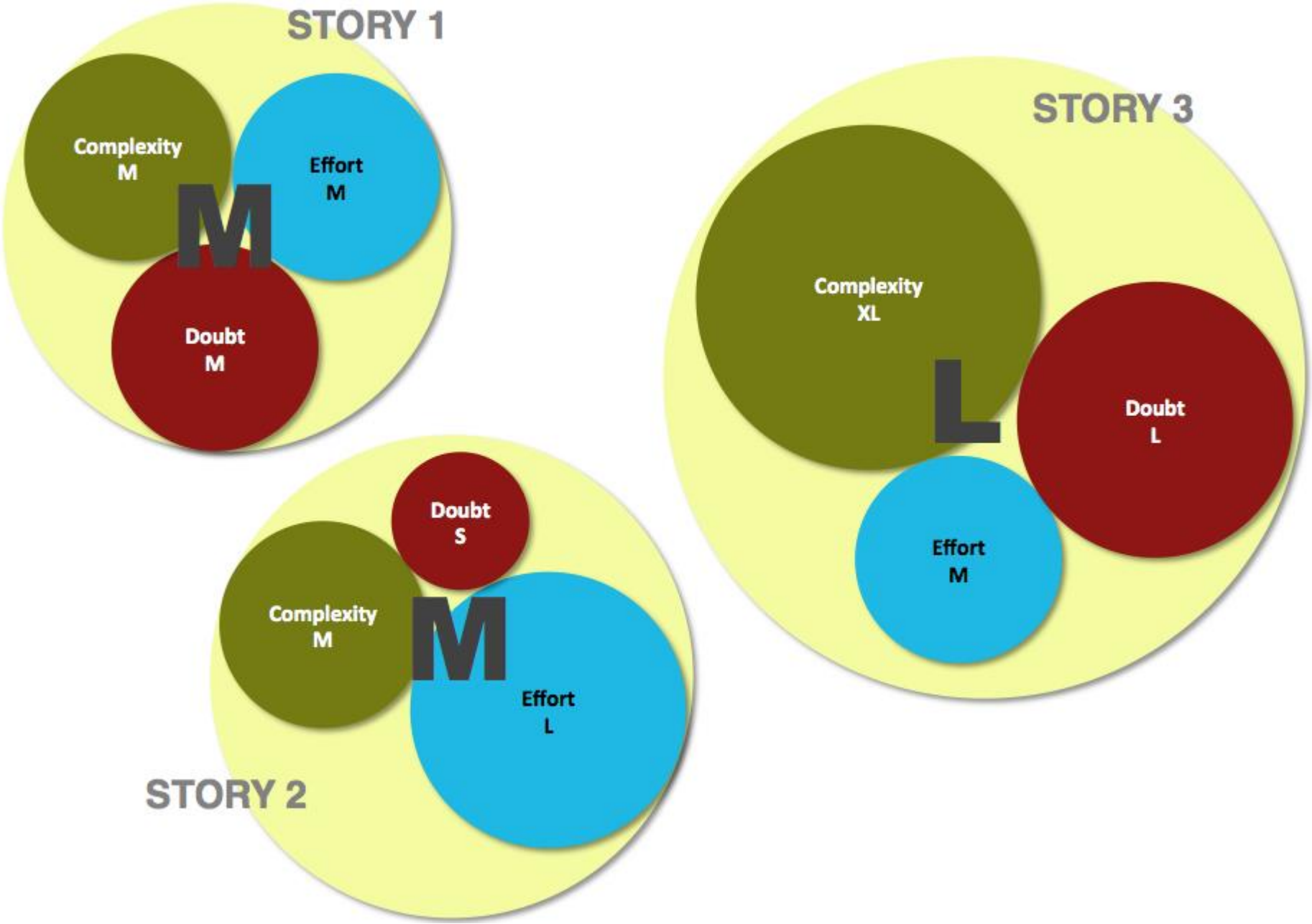

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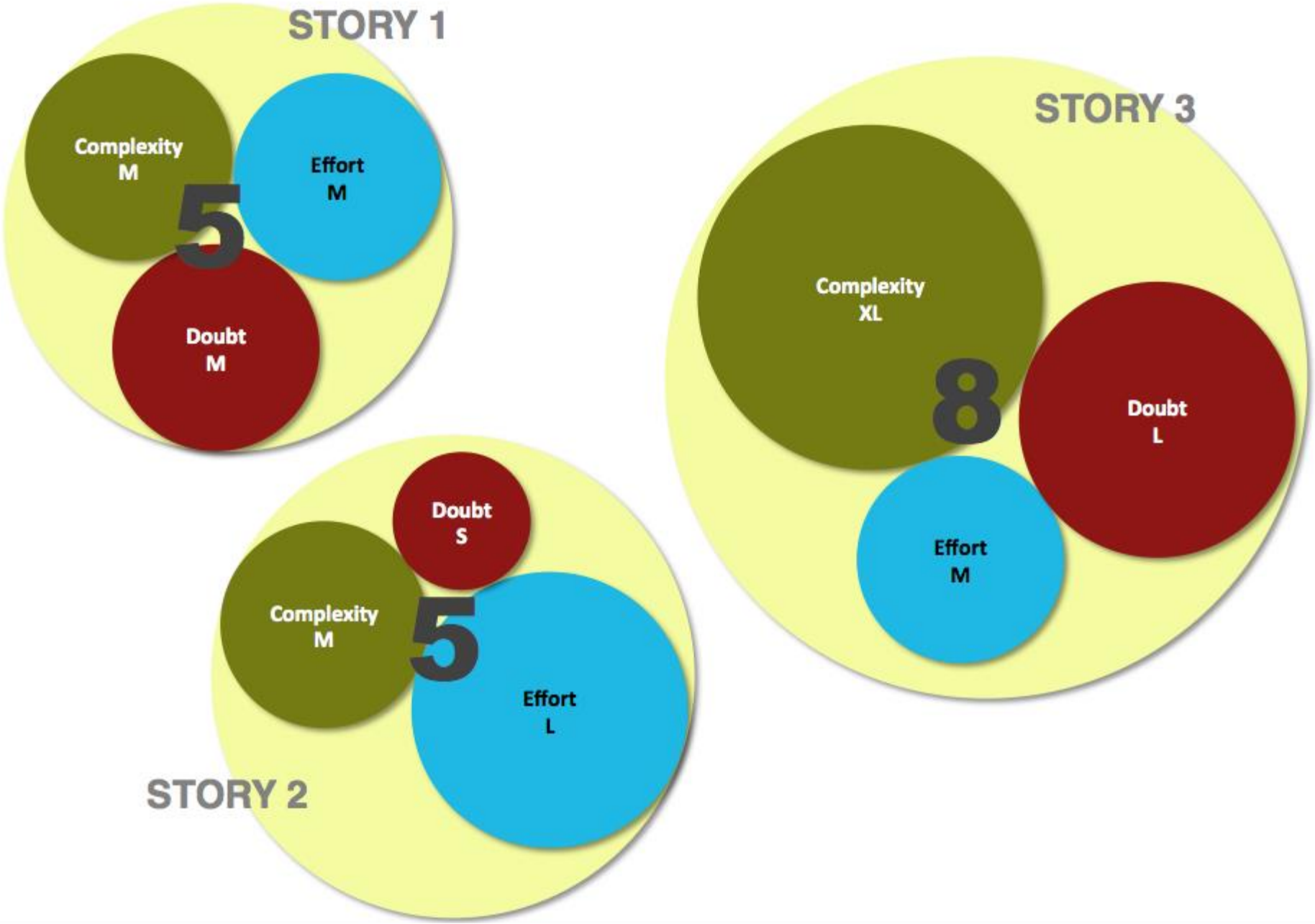

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The second key to success?

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The second key to success?

Daily updates of progress

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(I moustache you a question!)

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The End

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