

Measuring Agile Using Metrics



A MEMBER OF THE ENDAVA GROUP



Nearshore
Distributed
Agile Teams



About Velocity Partners

- Better business through better software
- HQ in London
- Distributed Agile Teams
- Over 4,500 technical staff across South America and Eastern Europe
- Highly collaborative agile development
- Our people make the difference!



Housekeeping

- If you're having technical issues, please send a message to the organizer, via GotoWebinar
- Questions encouraged! Please send them via the GotoWebinar question box.
- There will also be a brief (time allowed) Q&A at the end of the webinar
- Presentation deck & recording will be made available

Who Is This Guy?

Bill DeVoe

Principal Agile Evangelist – Velocity Partners

- 25+ years in IT, almost 20 in agile
- Experience ranges from small startups to large enterprises
- Variety of industries including broadcasting, access control, finance, and health care
- Knowledge and practice of many lean/agile methodologies
- Based in Denver, CO



What's the Goal of Metrics?

- We want to know a few things

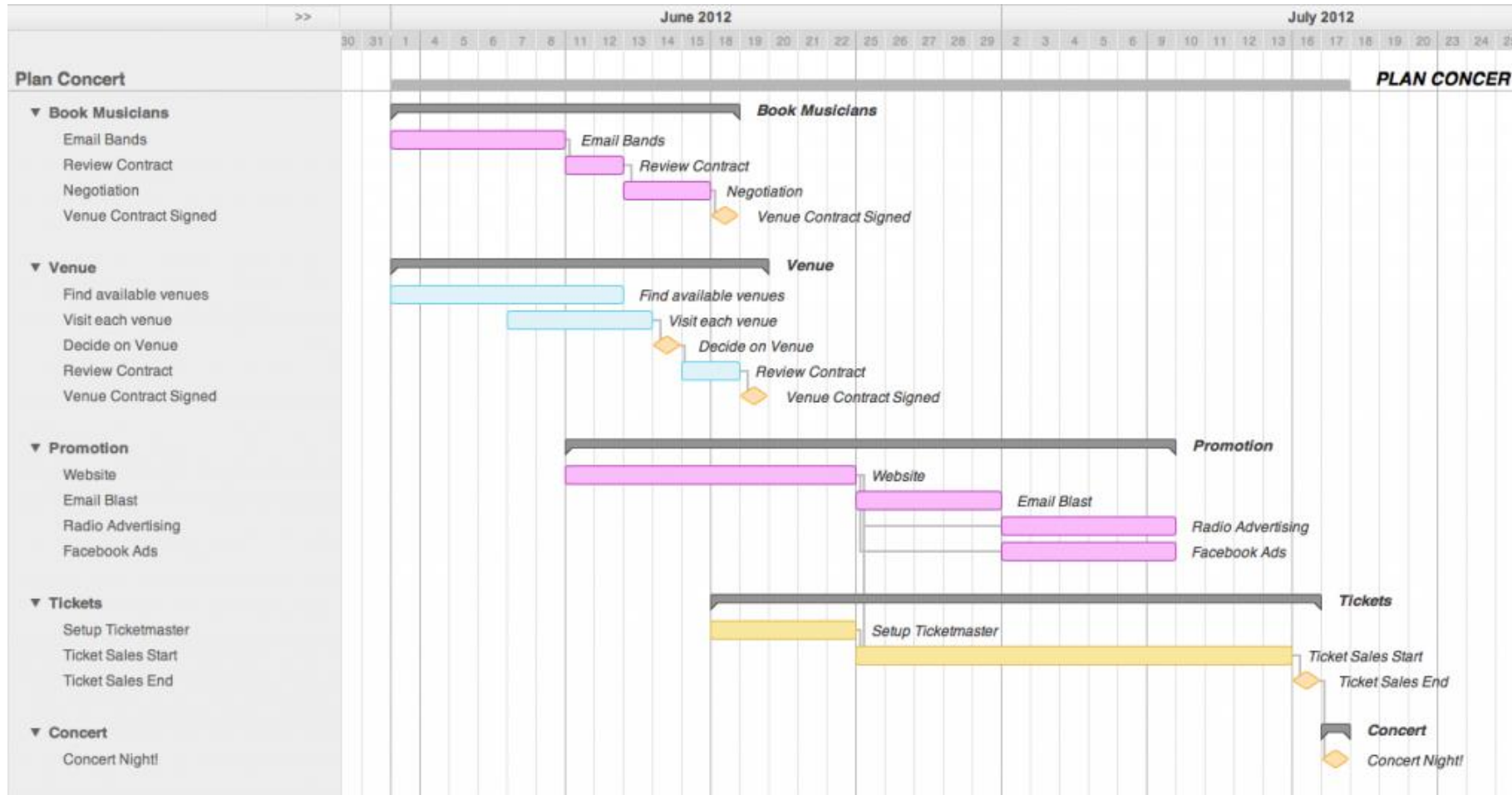
When we will be done?

What kind of value are we delivering?

Are we meeting our commitments?

How is the team doing?

Traditional Metrics - Schedules



What's Wrong With Traditional Metrics?

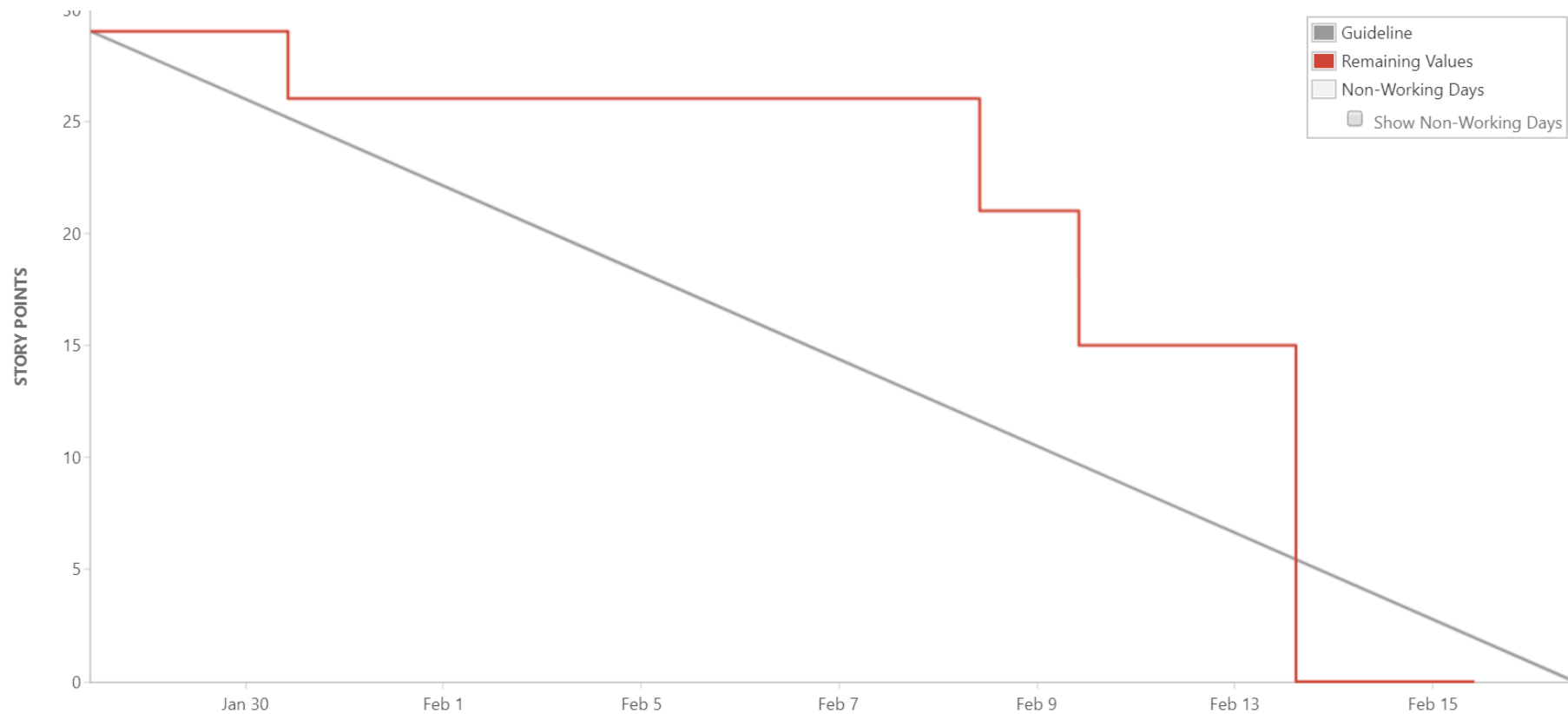
- Fixes the date and the scope
- Invariably requires buffers and “management reserves”
- Can't adjust easily when things go wrong
- Requires us to estimate everything at the start
- Doesn't necessarily focus on the most important items first

How Are Agile Metrics Different?

- Agile forces us to make a decision
 - Fix the date and float the scope?
 - Fix the scope and float the date?
- Forces us to evaluate importance and relative priority/rank
- Breaks the work into smaller chunks – no estimation of whole backlog
- Measuring the schedule is not as valuable if we're fixing the date

Typical Scrum Metrics

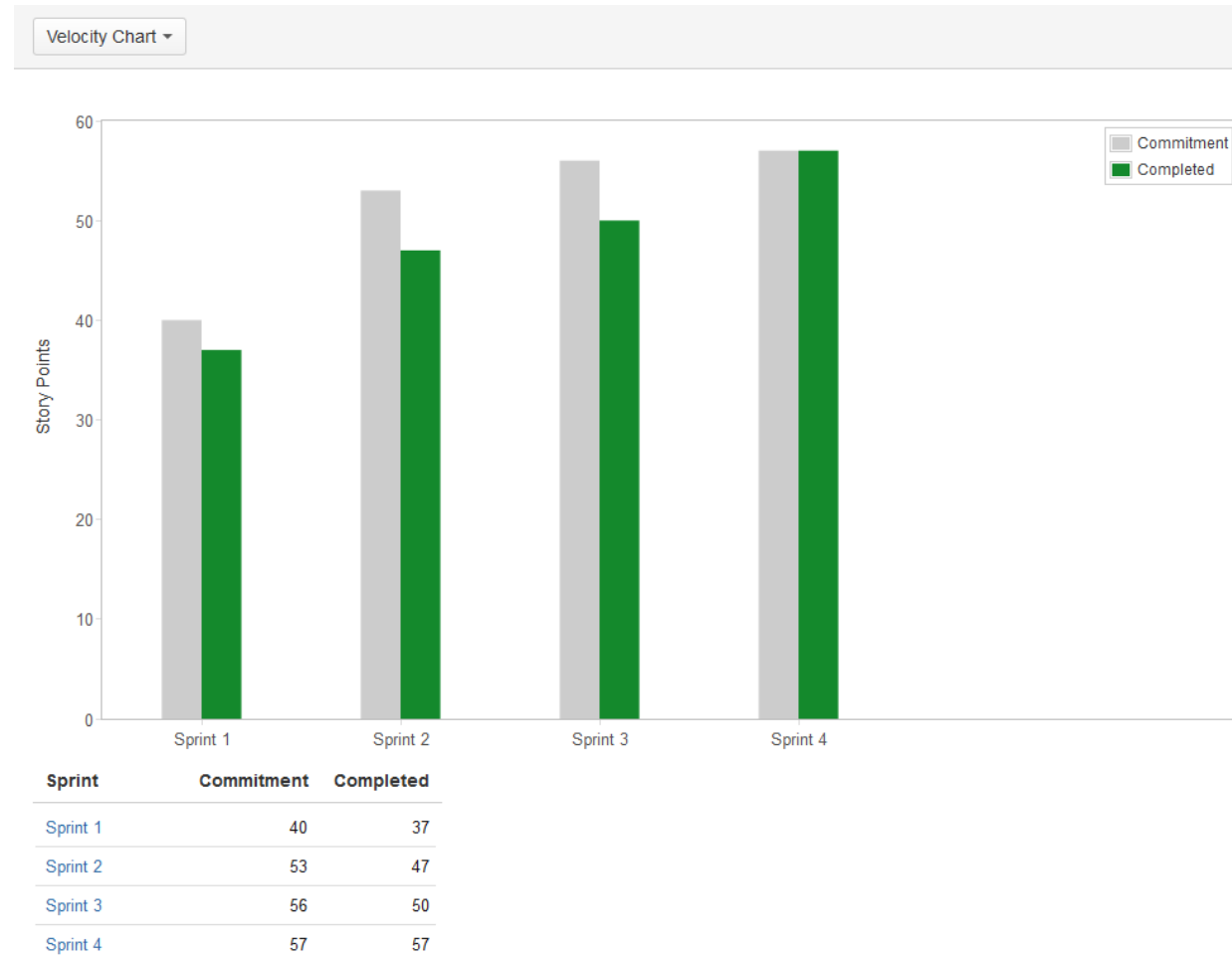
Burndown Chart



What's the Problem?

- Burndown is incomplete data – very one-dimensional
 - Only shows the current sprint
 - Only shows work that's “done”
 - Doesn't highlight blockers or stalled workd
- Doesn't show the business value delivered by the team
- Teams can struggle to update appropriately, especially if tracking hours

Velocity Report



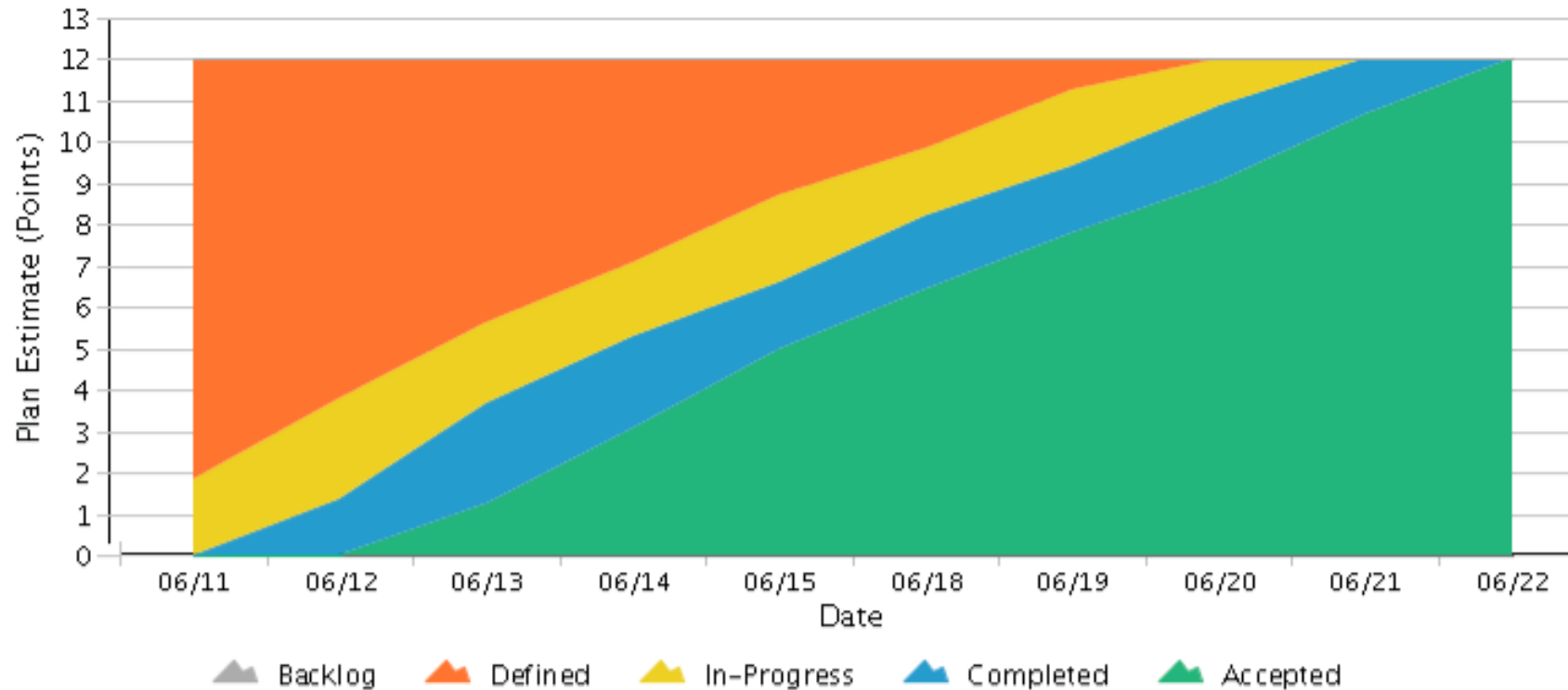
Characteristics of Good Metrics

- Measures trends
 - We want to avoid “snapshot” data
 - Shows data over time
 - We can compare to past performance measures
- Measures more than one dimension
 - Not just “hours” or “points” remaining
- Shows progress toward goals

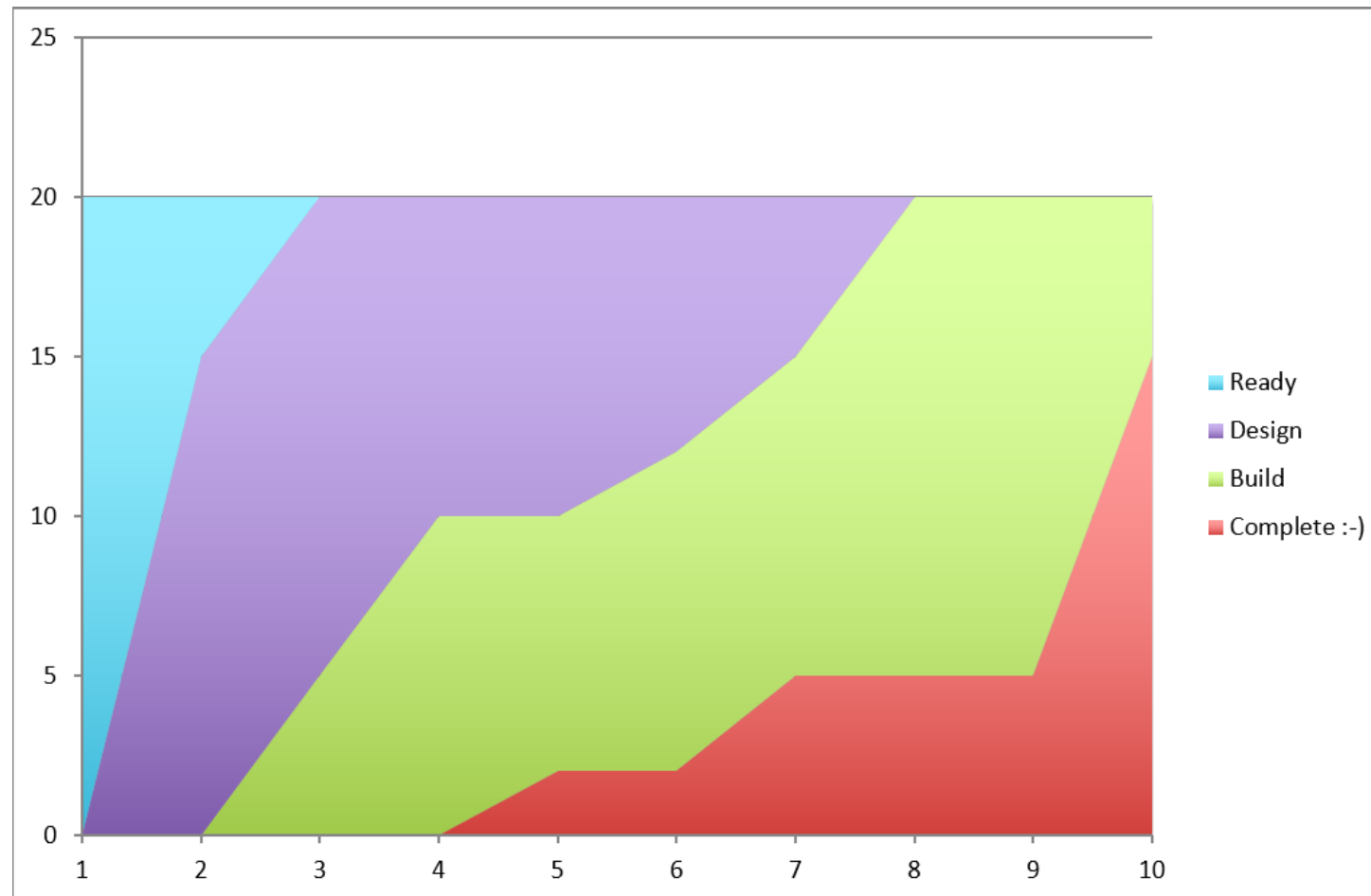
Cumulative Flow Diagram

Iteration Cumulative Flow Diagram

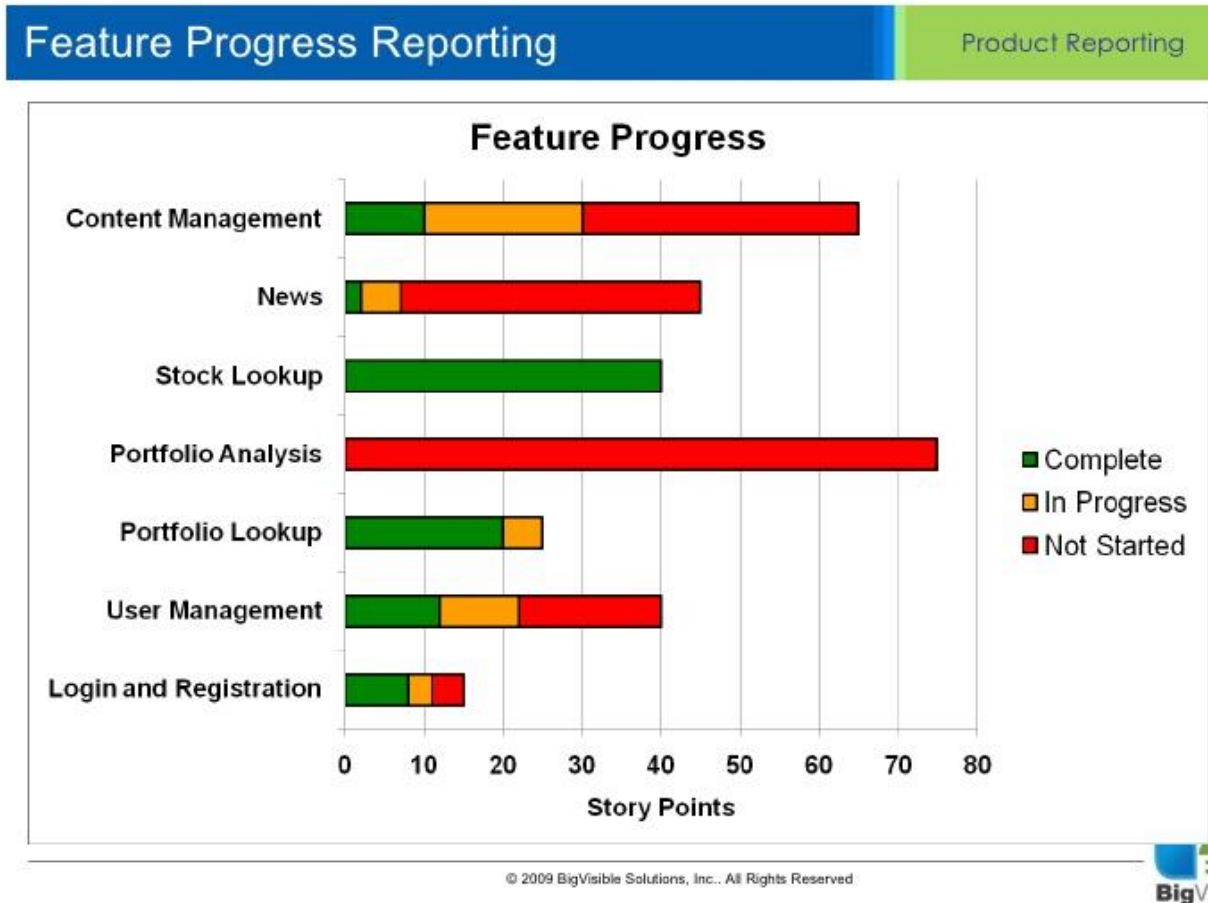
Analytics Team ↓ Iteration 5 (R2)



Cumulative Flow Diagram

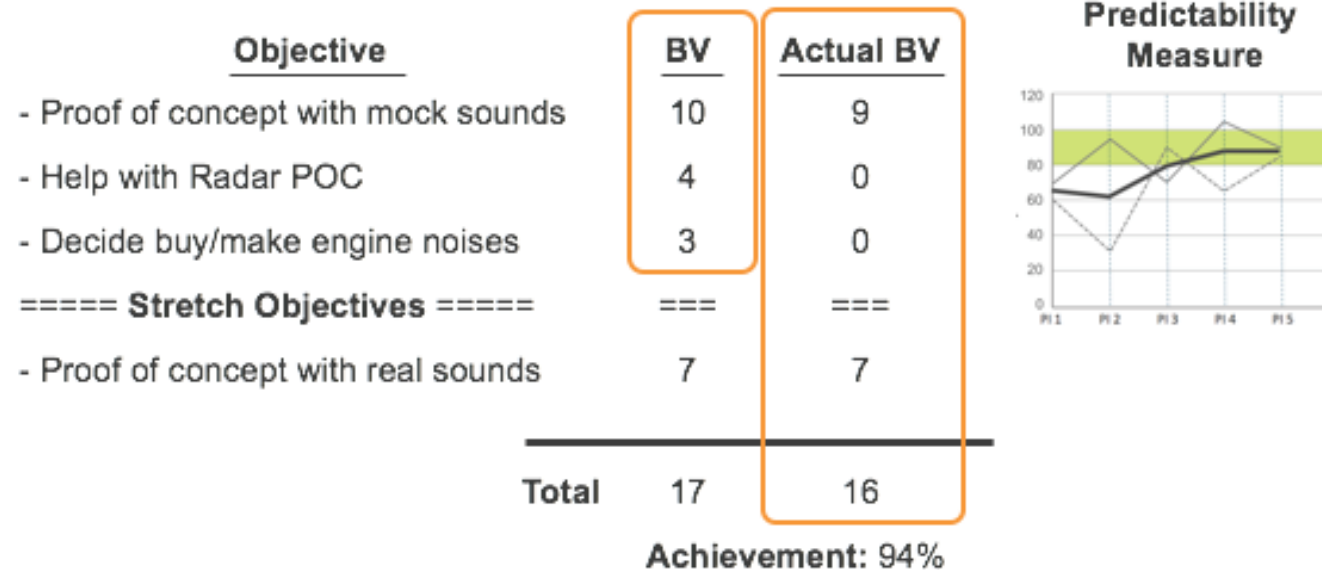


Feature Progress Metrics



Measuring Business Value

- SAFe uses this at the Program Increment (PI) level



From scaledagileframework.com

Quality Assurance Metrics

- Escaped defects
- Automated test coverage
- Build success rates
- Unit tests vs integration tests vs systems testing (agile test pyramid)

Team Health Metrics

- Don't forget to track team health
 - Engagement surveys
 - NPS-style evaluations (would you recommend your team to a colleague?)
 - Self-assessments
 - Niko-niko boards

Sprint 33	Mon	Tue	Wed	Thur	Fri	Mon	Tue	Wed	Thur	Fri
Lucinda	😊	😊	😊	😐	😐	😊	😊	😐	😊	😊
Theodore	😡	😐	😡	😡	😡	😐	😊	😐	😡	😐
Virginia	😐	😐	😐	😐	😡	😊	😐	😊	😊	😊
Olga	😊	😊	😊	😐	😐	😊	😊	😐	😊	😐
Elliot	😊	😊	😊	😐	😐	😊	😡	😊	😊	😊
Suresh	😐	😊	😊	😐	😐	😊	😊	😐	😐	😊
Emile	😐	😡	😐	😐	😐	😊	😡	😐	😐	😊

A niko-niko calendar

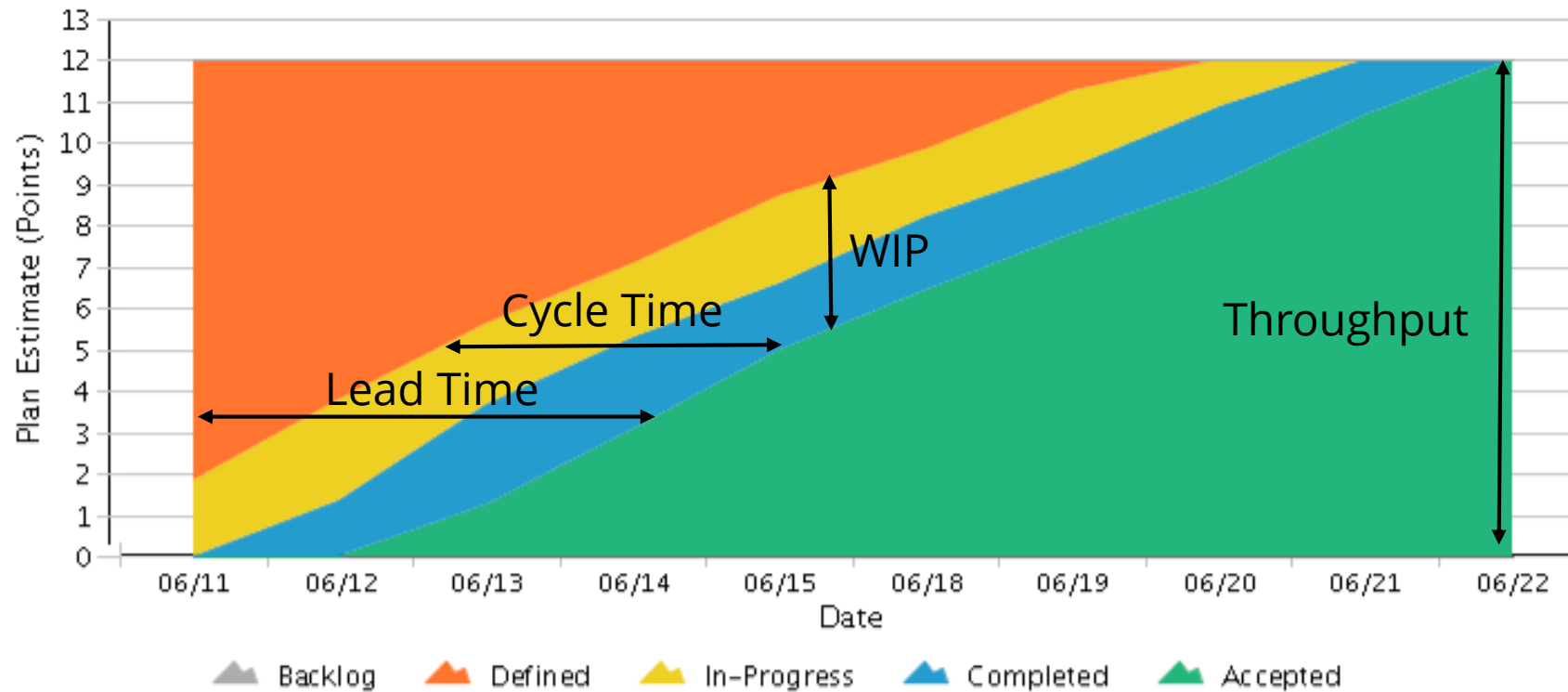
Using Lean Metrics

- Lean provides good guidance on overall system performance
- Focus on small batches of work
- Optimize the whole system, not individual “stations” of work
- Identify problems early and correct early

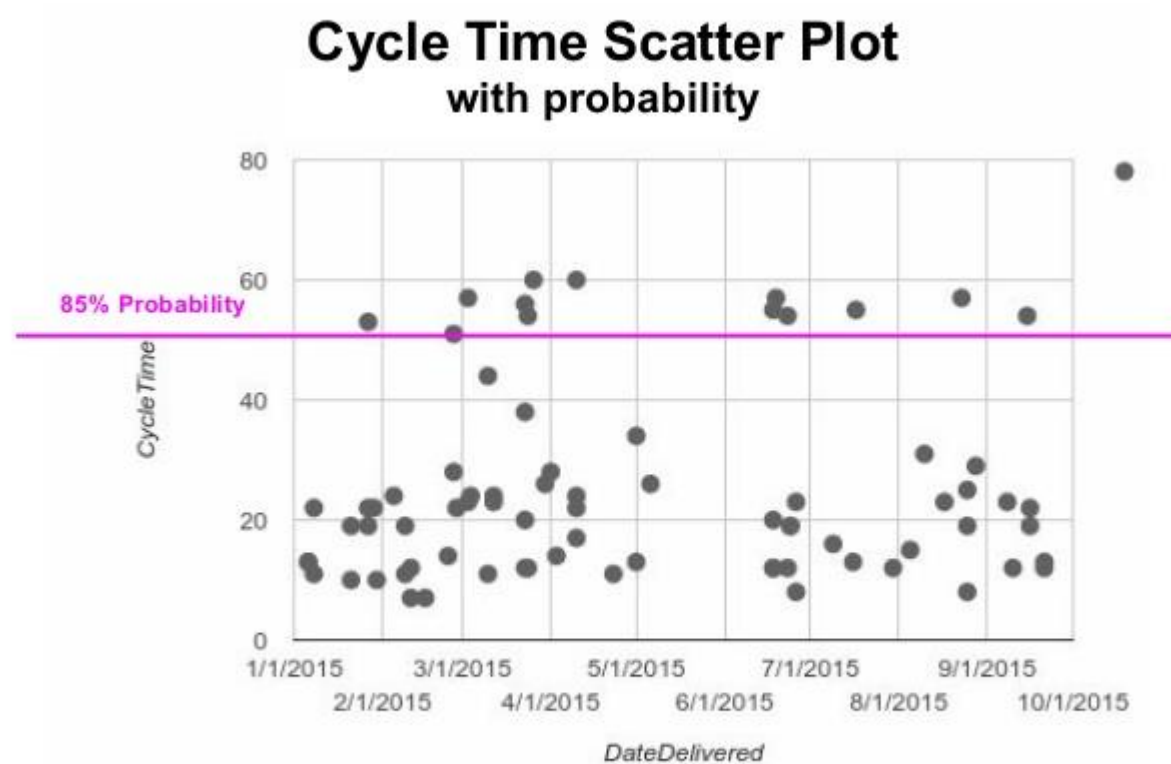
Basic Lean Metrics

Iteration Cumulative Flow Diagram

Analytics Team ↓ Iteration 5 (R2)



Lean Metrics – Scatter Plot

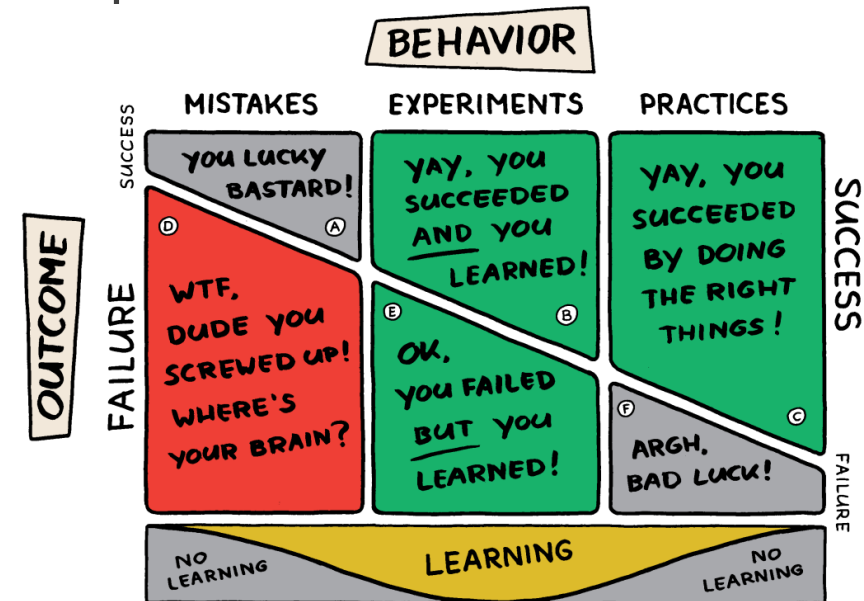


@CATSWETEL



Advanced Metrics

- Team commitments
 - What work is the team doing? Are they committed to the work?
- Measure against the Agile Manifesto principles
- Predictability Measures
- Experimenting
- And more...



Further Reading

- *Agile Metrics in Action* – Christopher W. H. Davis
- *Lean Change Management* – Jason Little
- *Principles of Product Development Flow* – Don Reinertsen
- *Agile Software Requirements* – Dean Leffingwell
- *The Three Pillars of Agile Quality & Testing* – Bob Galen

Contact Information

Delivering exceptional value through a lean and agile nearshore execution model

Check out the Velocity Partners blog:

<http://www.velocitypartners.net/blog/>



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Thanks for attending!

Thank you!

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- Sales inquiries; Coaching inquiries; please reach out to:

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- We hope to see you at our next webinar...