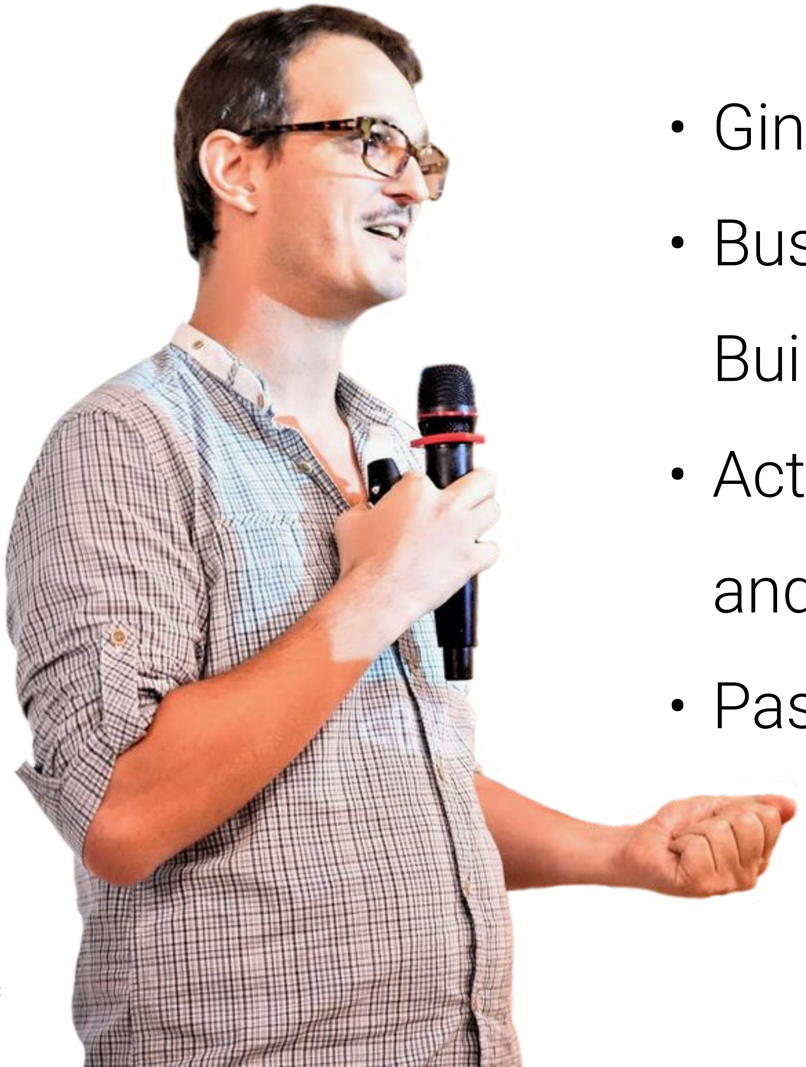
How to Get Meaningful Metrics

... where to start and what to avoid

Who am I?



- Gino Marckx
- Business Improvement Consultant, Coach, Team Builder, Developer
- Active in software development community in and outside of Toronto
- Passionate about making every team thrive

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Keep in mind...

- Ideas/techniques can be applied universally
- Focused on measuring team performance
- Examples of good delivery metrics

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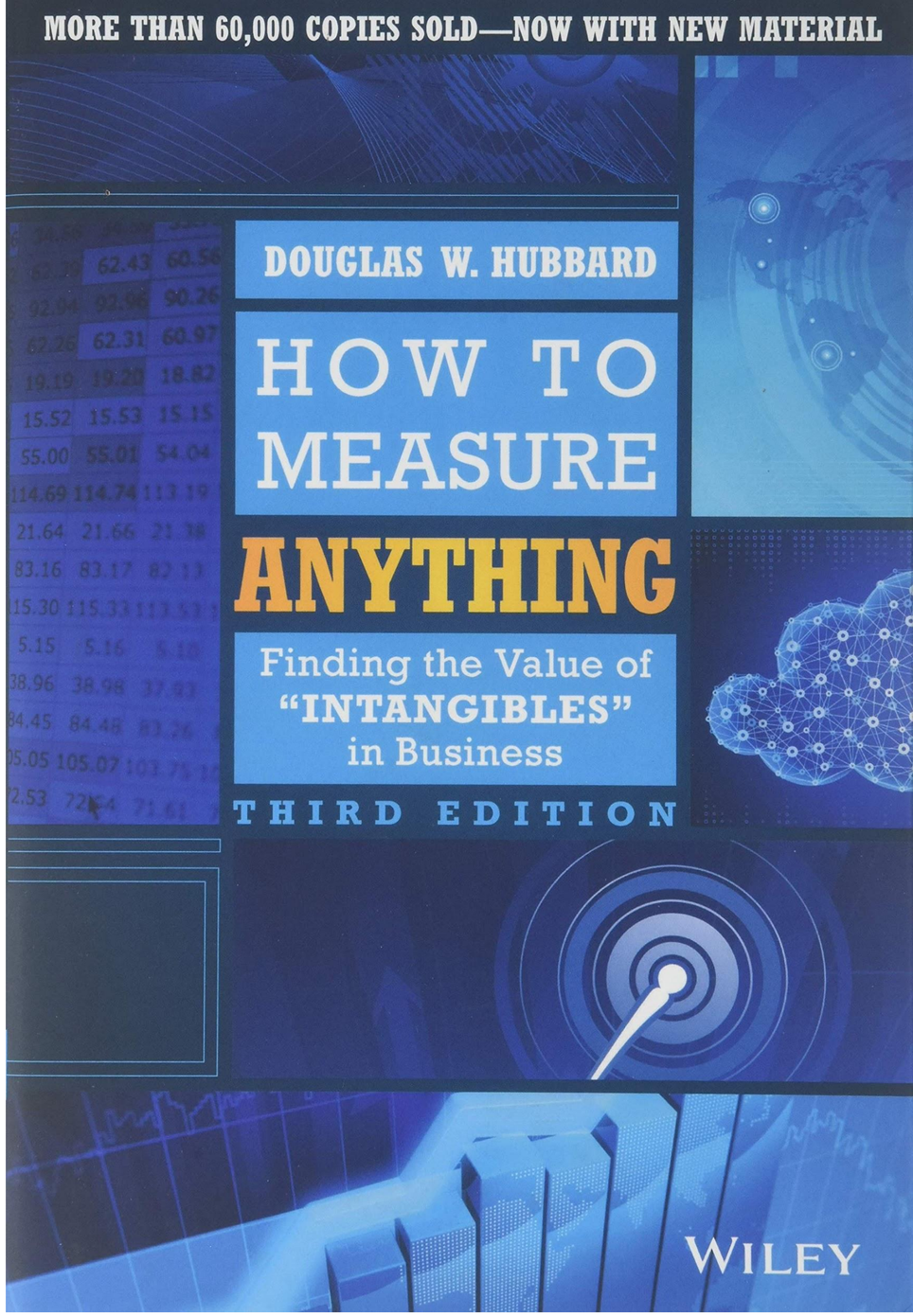
“Don’t measure unless you know how to respond to a metric”



Source: Amazon.ca

Examples

- Velocity
- Lines of code
- Escaped defects

Why measure anyways?

Prescriptive Analytics

Predictive Analytics

Diagnostic Analytics

Descriptive Analytics

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Source: The Gartner Analytic Ascendency Model

What to measure?

- Measuring process
- Often confused with *lead* metrics
- Risk of measuring compliance

- Measuring outcomes
- *Lag* metrics

Deliver early and often!

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Examples

- Velocity
  - What *How much got done?*
- Lines of code
  - What *How hard do programmers work?*
- Escaped defects
  - What *What is the quality?*

Pitfalls

- Perverse incentives

Get the opposite effects

- The Hawthorne effect

That which gets measured will improve

- Goodhart’s law

When a measure becomes a target,
it ceases to be a good measure

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Examples

- Velocity
  - What *How much got done?*
- Lines of code
  - What *How hard do programmers work?*
- Escaped defects
  - What *What is the quality?*

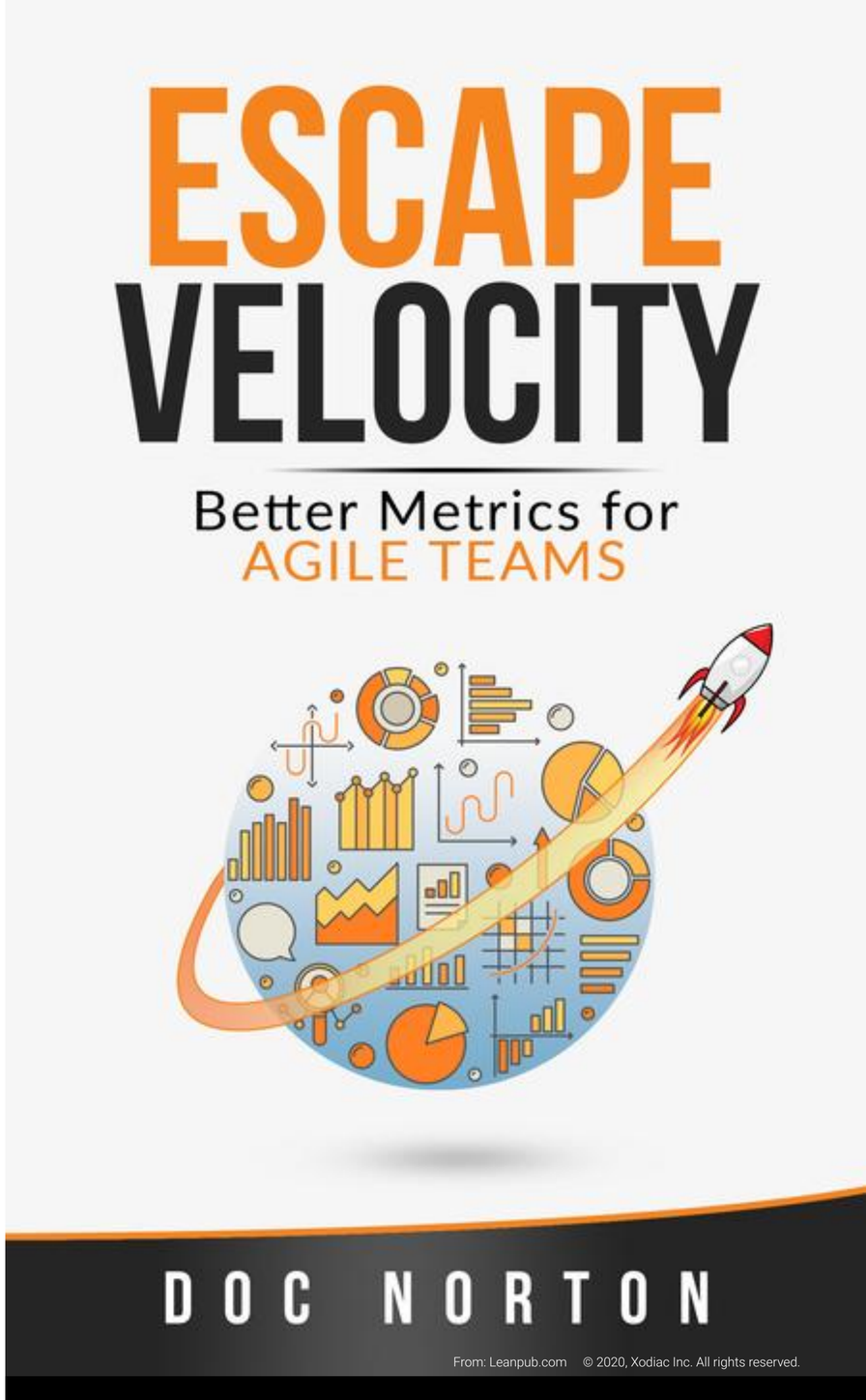
- **Count partially finished work**
- **Inflate story points**
- **Include defects**

- **Lots of whitespace**
- **Duplicate code**
- **Refrain from refactoring**

- **Log only defects found by testers**
- **Classify defects as scope creep**

“Time and time again, I find teams struggling with Velocity as a genuinely helpful metric. In most cases, it is at best a weak took for planning work and more often a poor tool for indication what work will be done by when.”

- Doc Norton



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An alternative approach?

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Guiding principles

1. Minimal impact on work
2. Can be trusted
3. Provide insight into a decision
4. Measuring outcomes, not compliance

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Source: The Gartner Analytic Ascendency Model

1. Goal

2. Question

3. Metric

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Where to start?

G Deliver on time

Q How much work can the team *get done*?

How many features can the team *complete*?

M Throughput

> *the amount of something that goes through something*

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Source: https://www.merriam-webster.com/dictionary/throughput

A single datapoint…

Done: November 6, 2020

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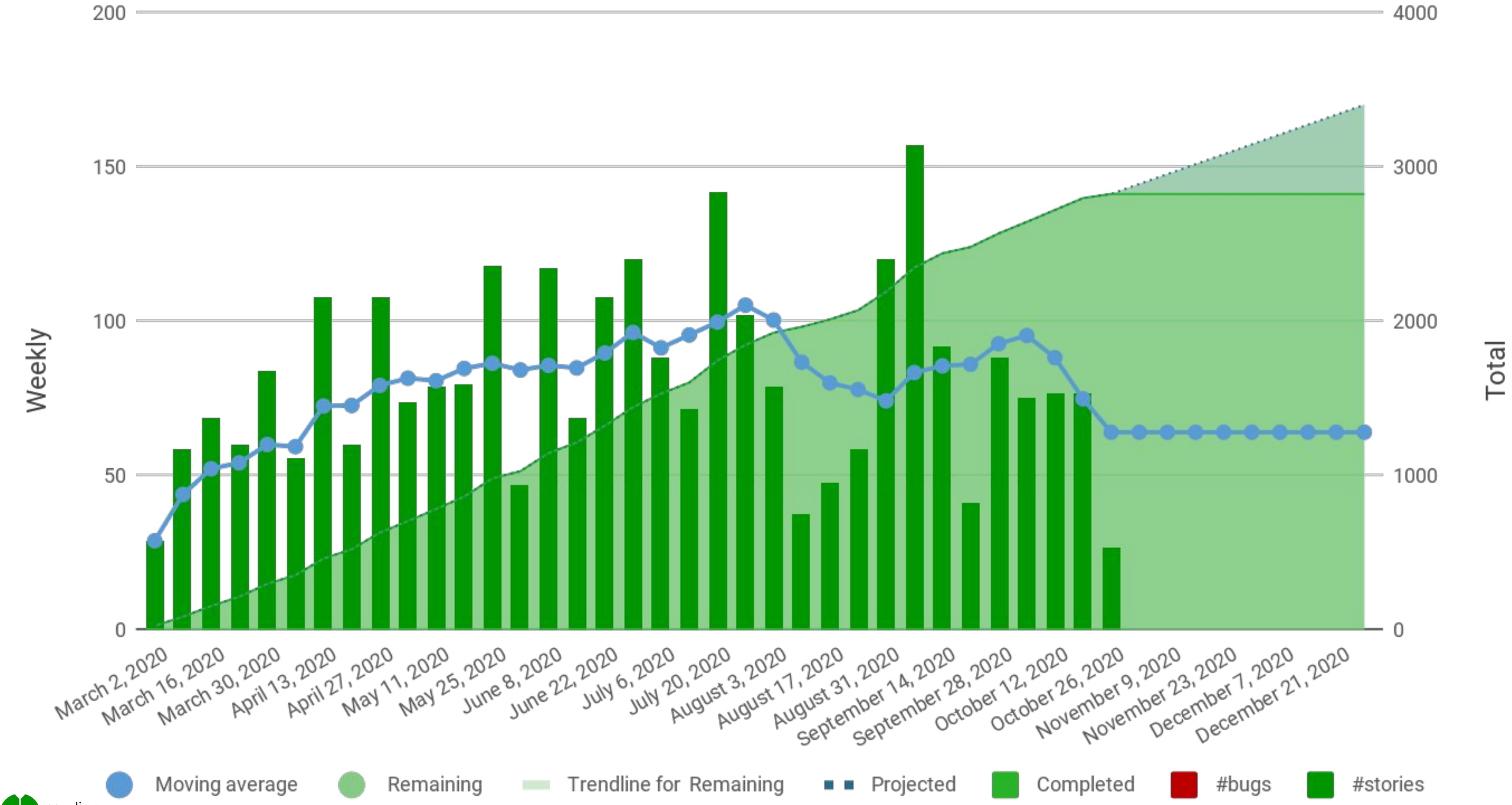

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A bit more data…

Done: November 6, 2020

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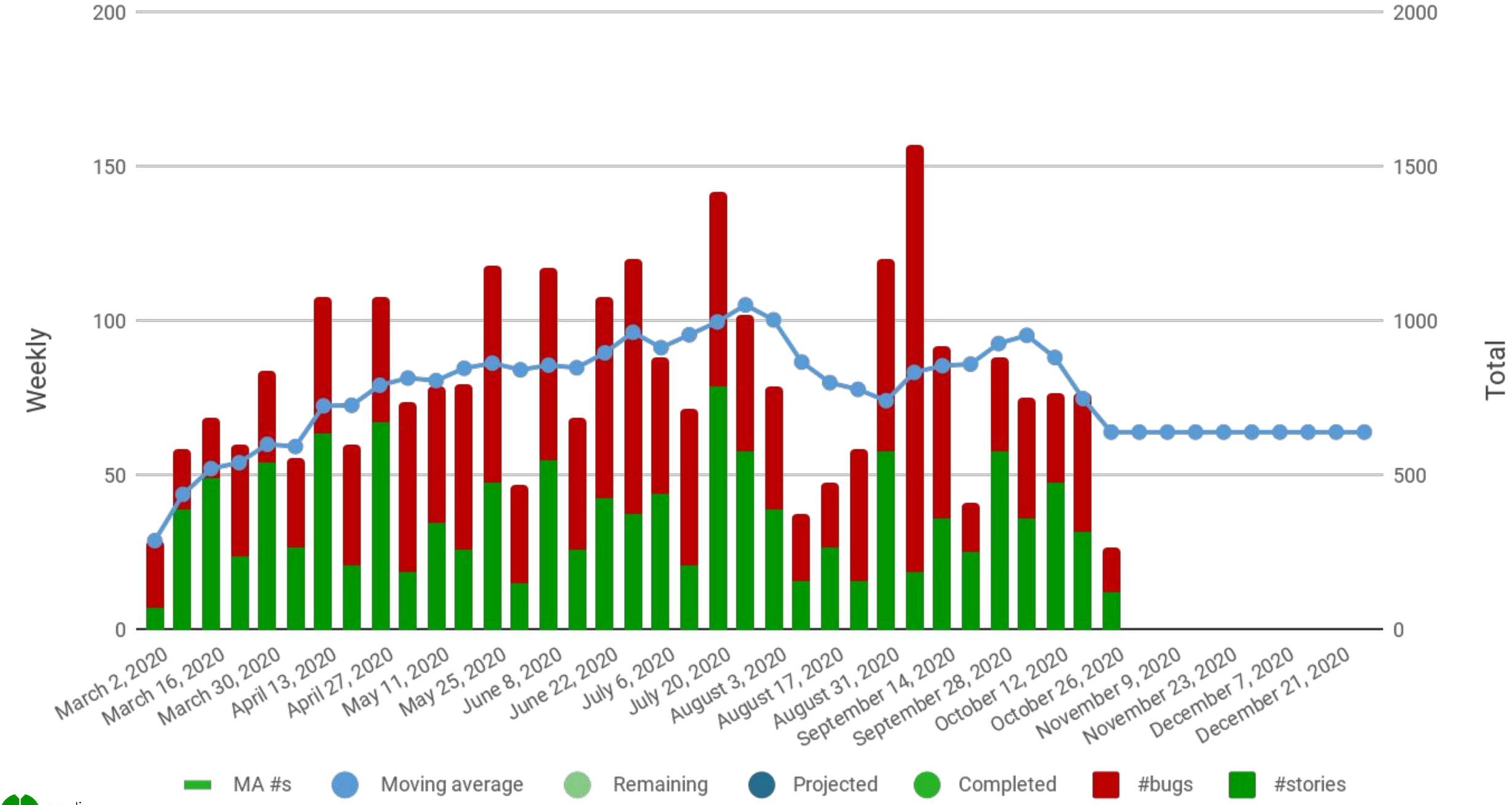

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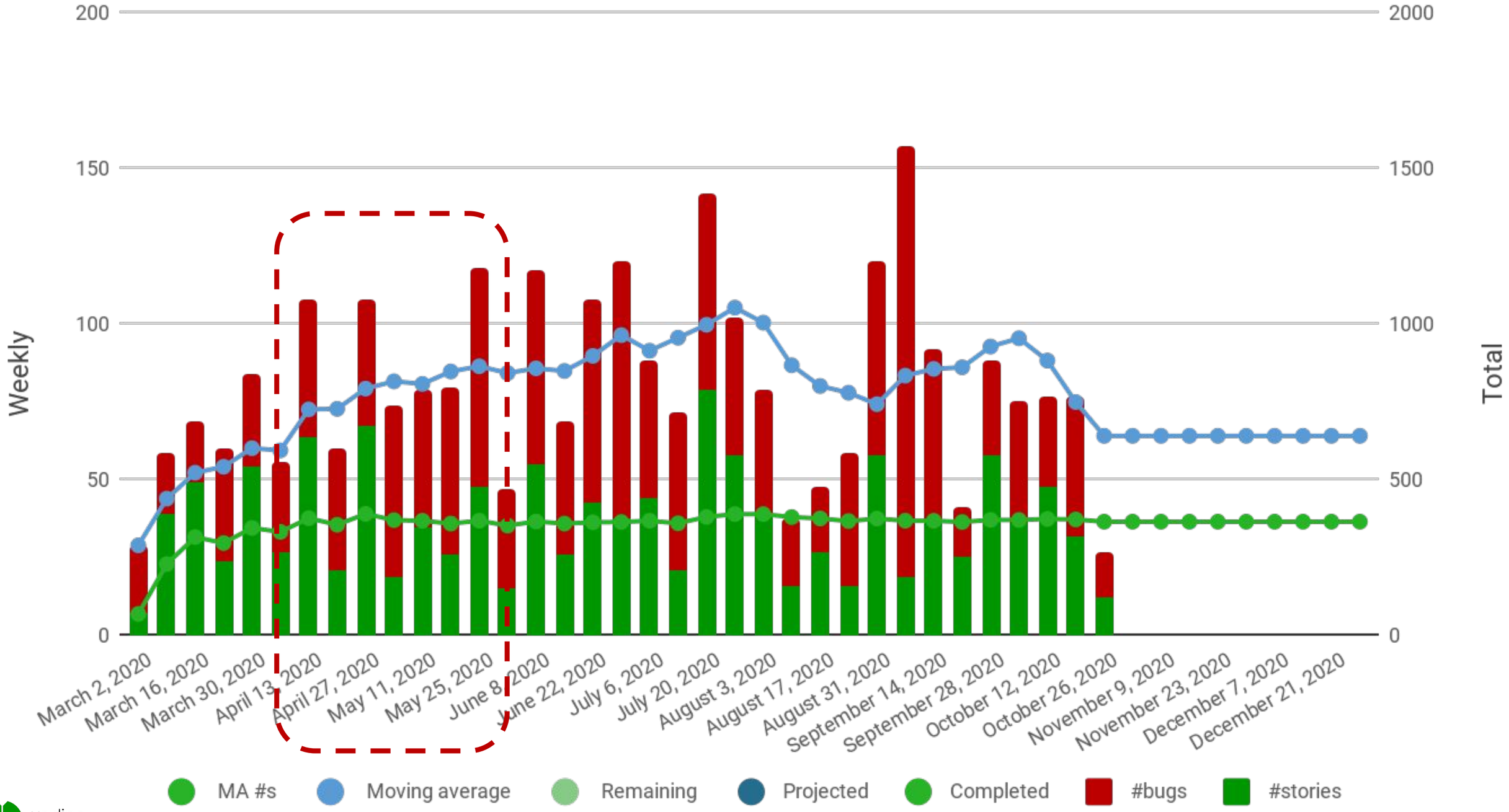

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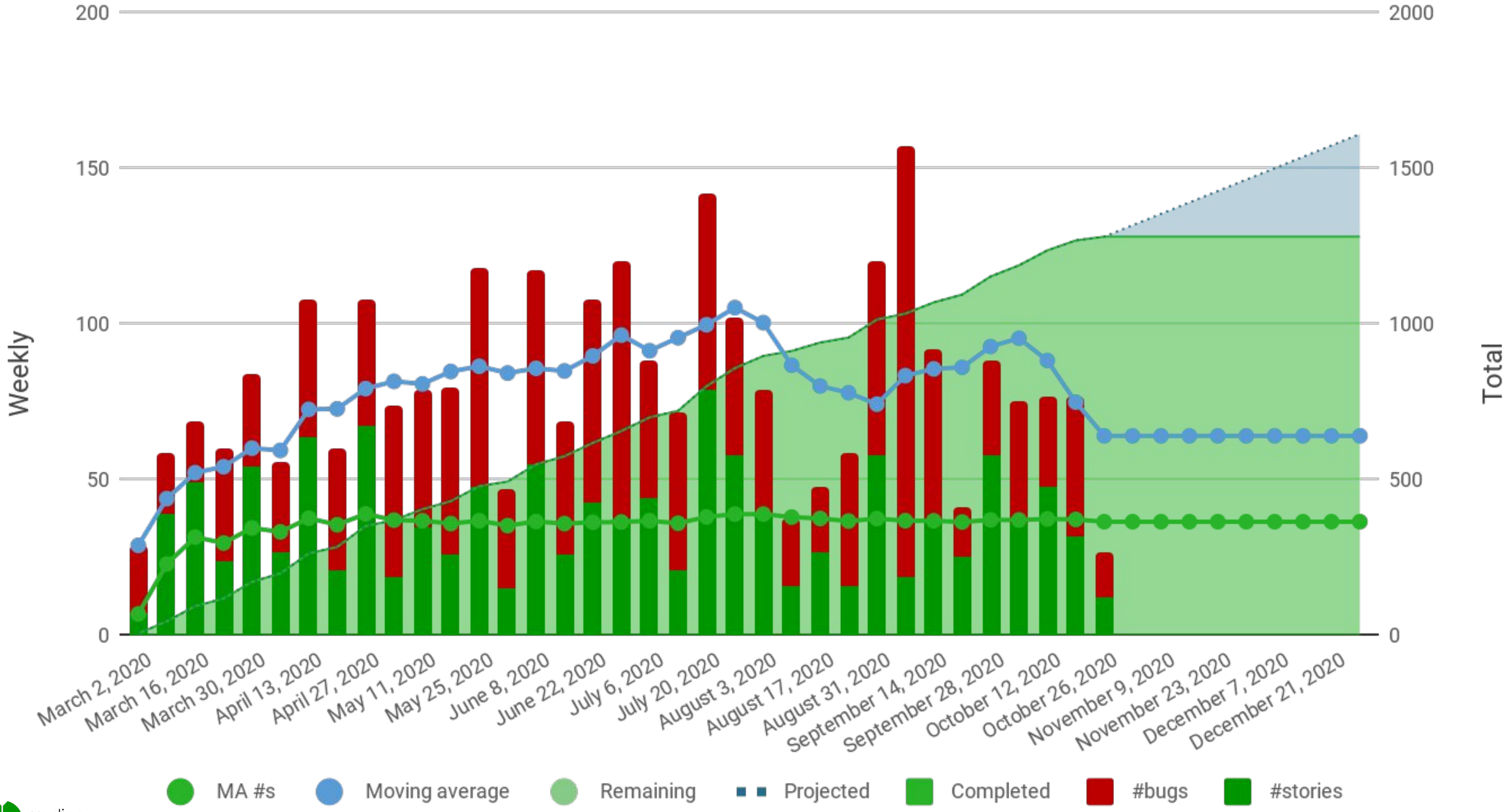

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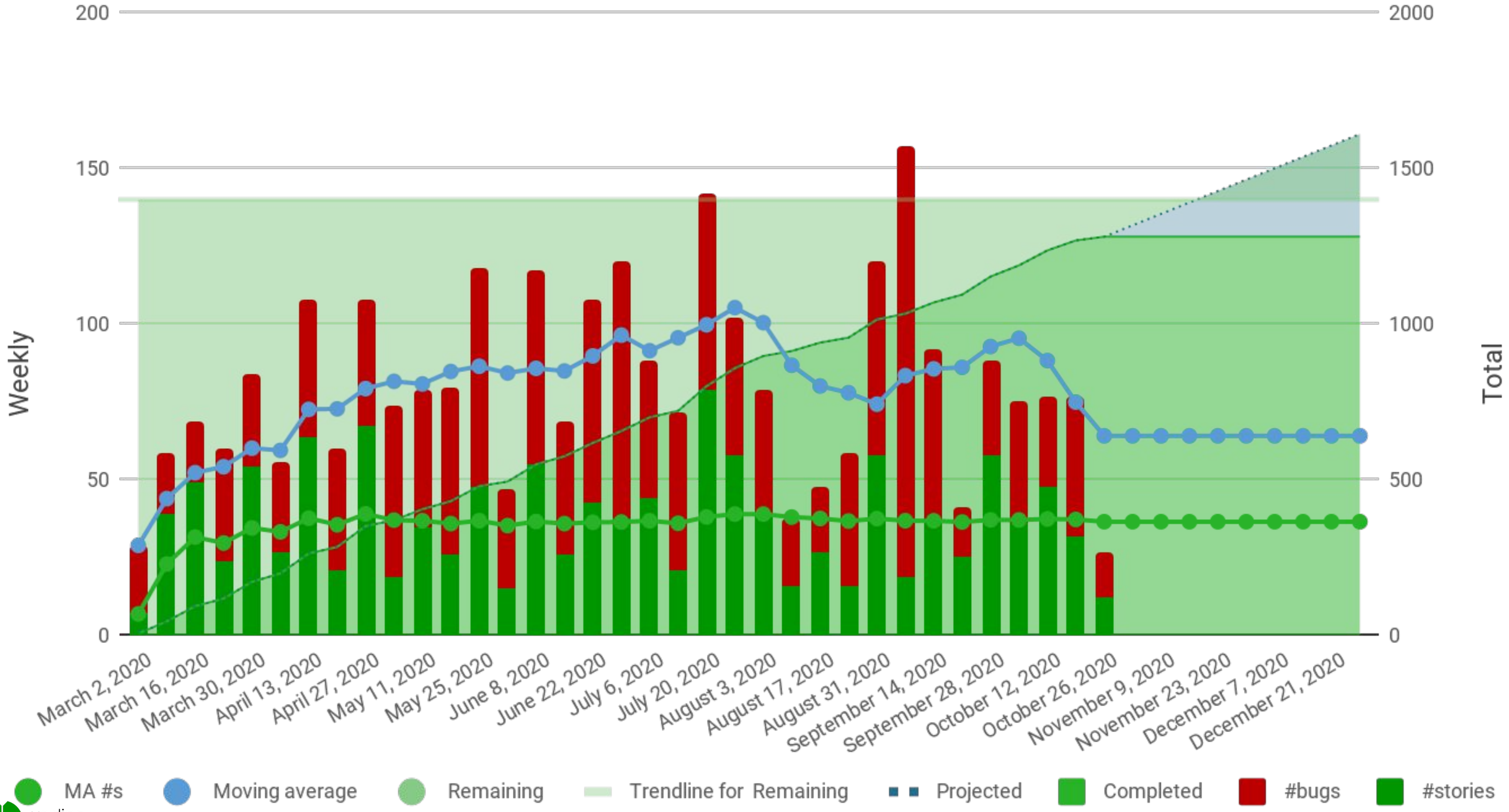

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Calculate your throughput

https://forms.xodiac.ca/metricstalksurvey

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What’s next?

- **G** Make promises that we can keep
- **Q** How long does it take for the team to complete a feature?
- **M** Cycle time

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An additional datapoint…

Started: October 28, 2020

Done: November 6, 2020

Demo »

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Standards?

DORA
DEVOPS RESEARCH & ASSESSMENT

Throughput

Deliver as much value to users as early as possible

Deployment frequency

Lead time to deployment

Stability

Keep failure demand as low as possible

Time to recover

Change failure rate

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Remember

- Only measure what you are willing to act on
- Measure outcomes and ensure your processes produce outcomes regularly
- You get what you measure

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