

On the Care and Feeding of Feedback Cycles

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Pivotal
@testobsessed

DevOps Enterprise 2014 (#DOES14)

Who Am I?

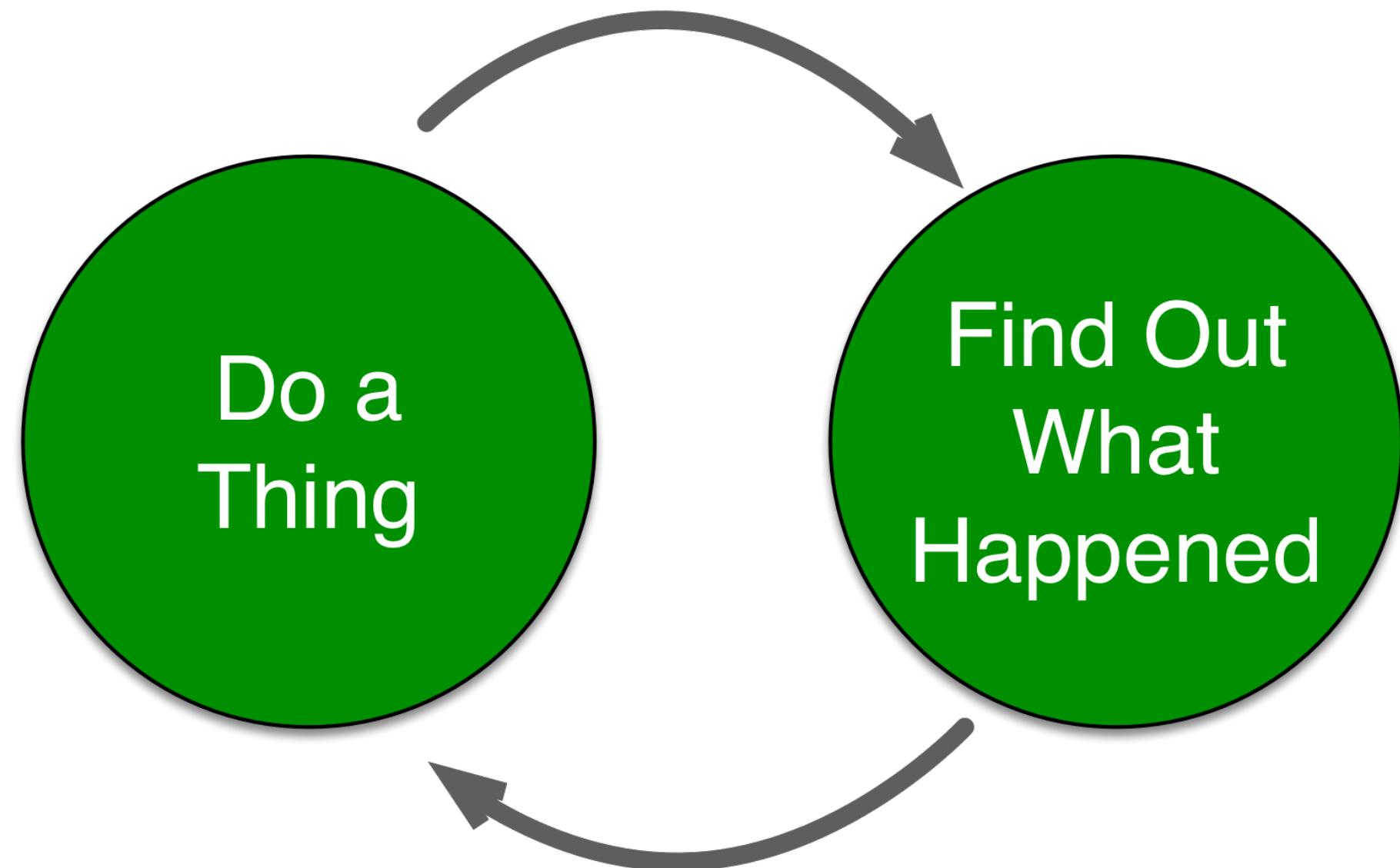
PivotalTM



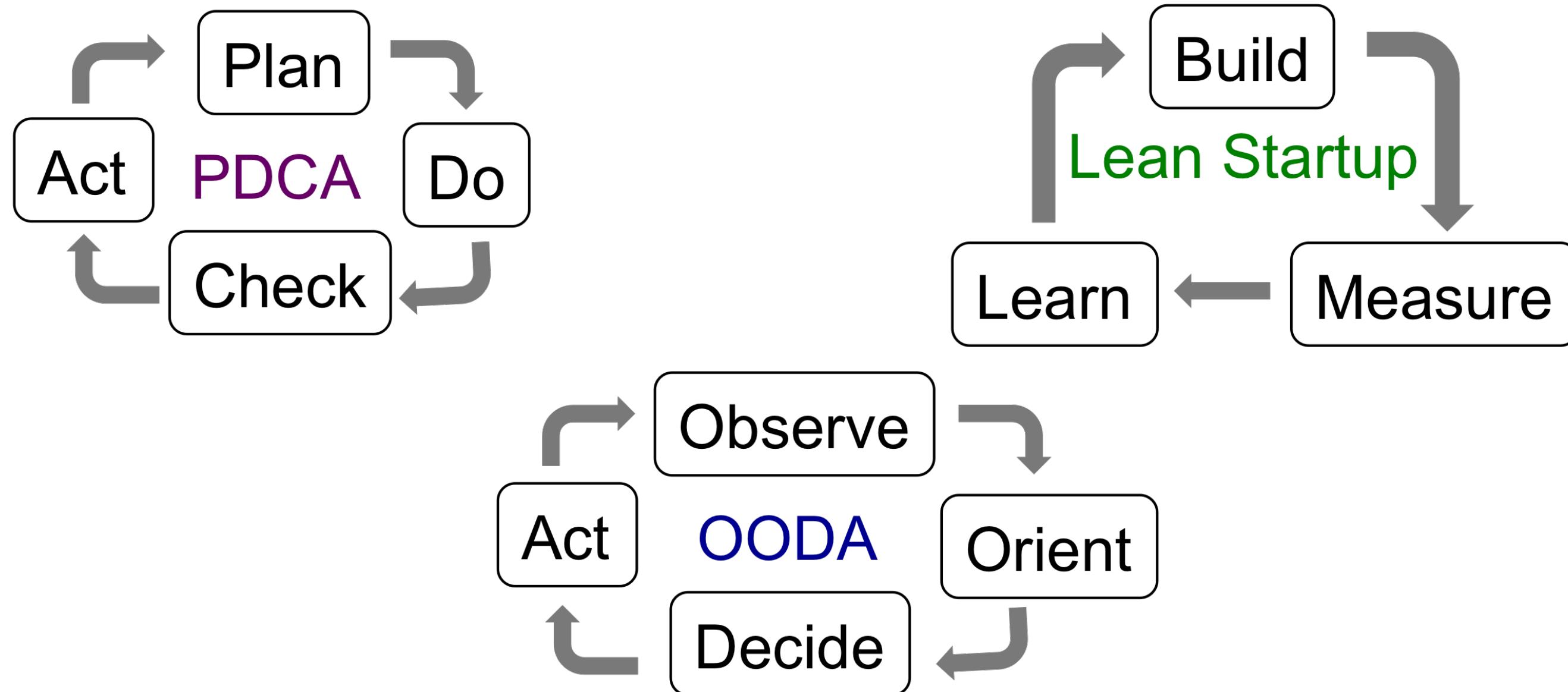
CLOUD
FOUNDRYTM



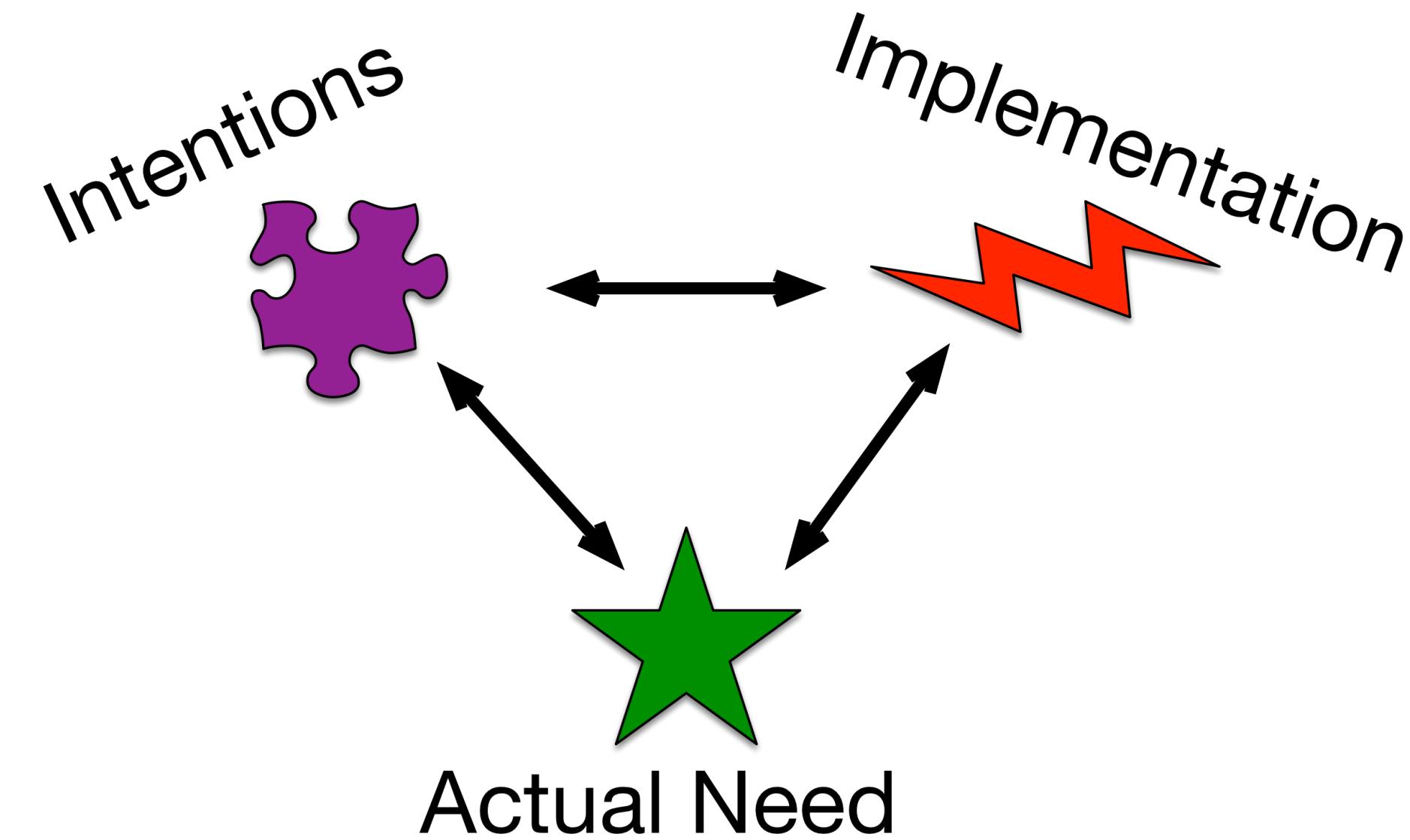
What's Feedback?



Feedback Loops



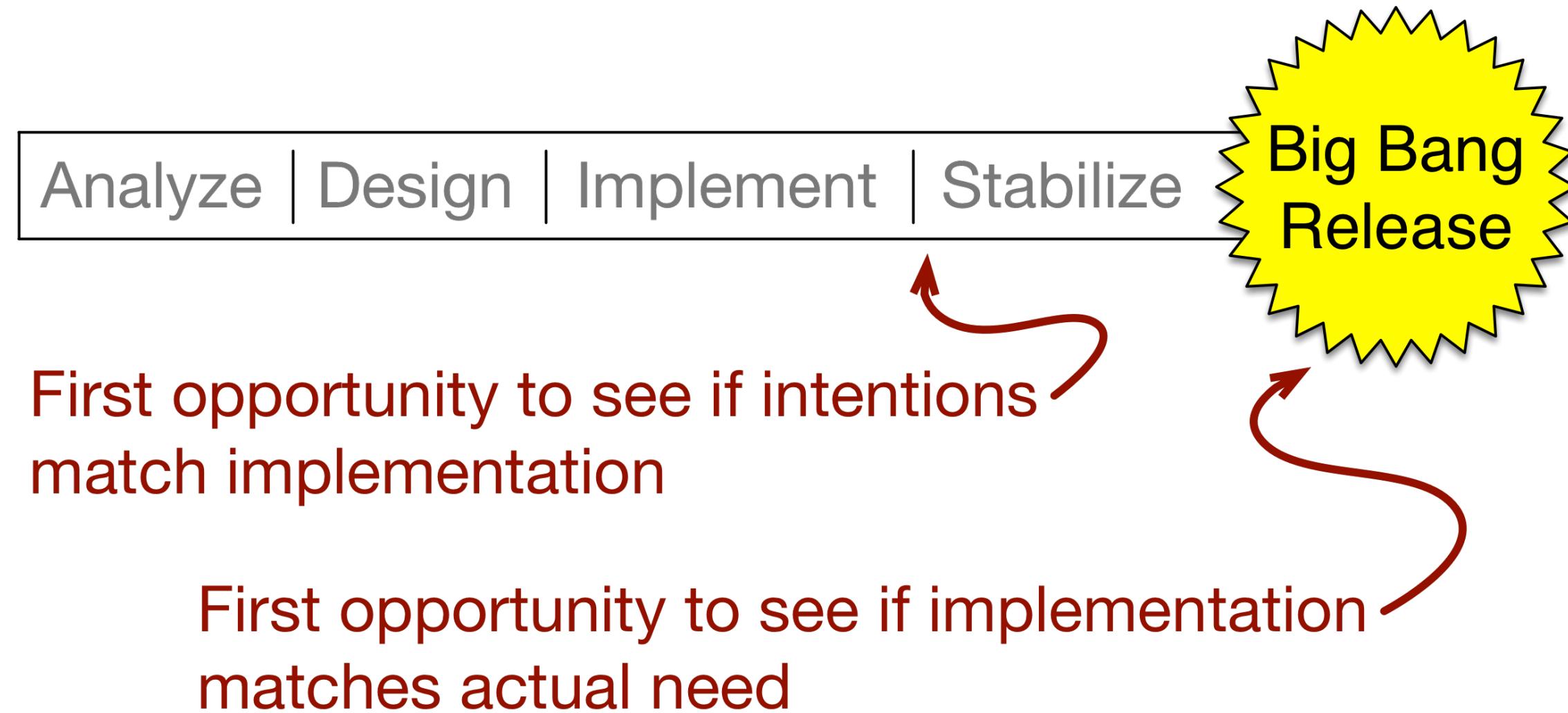
What Do We Need Feedback On?



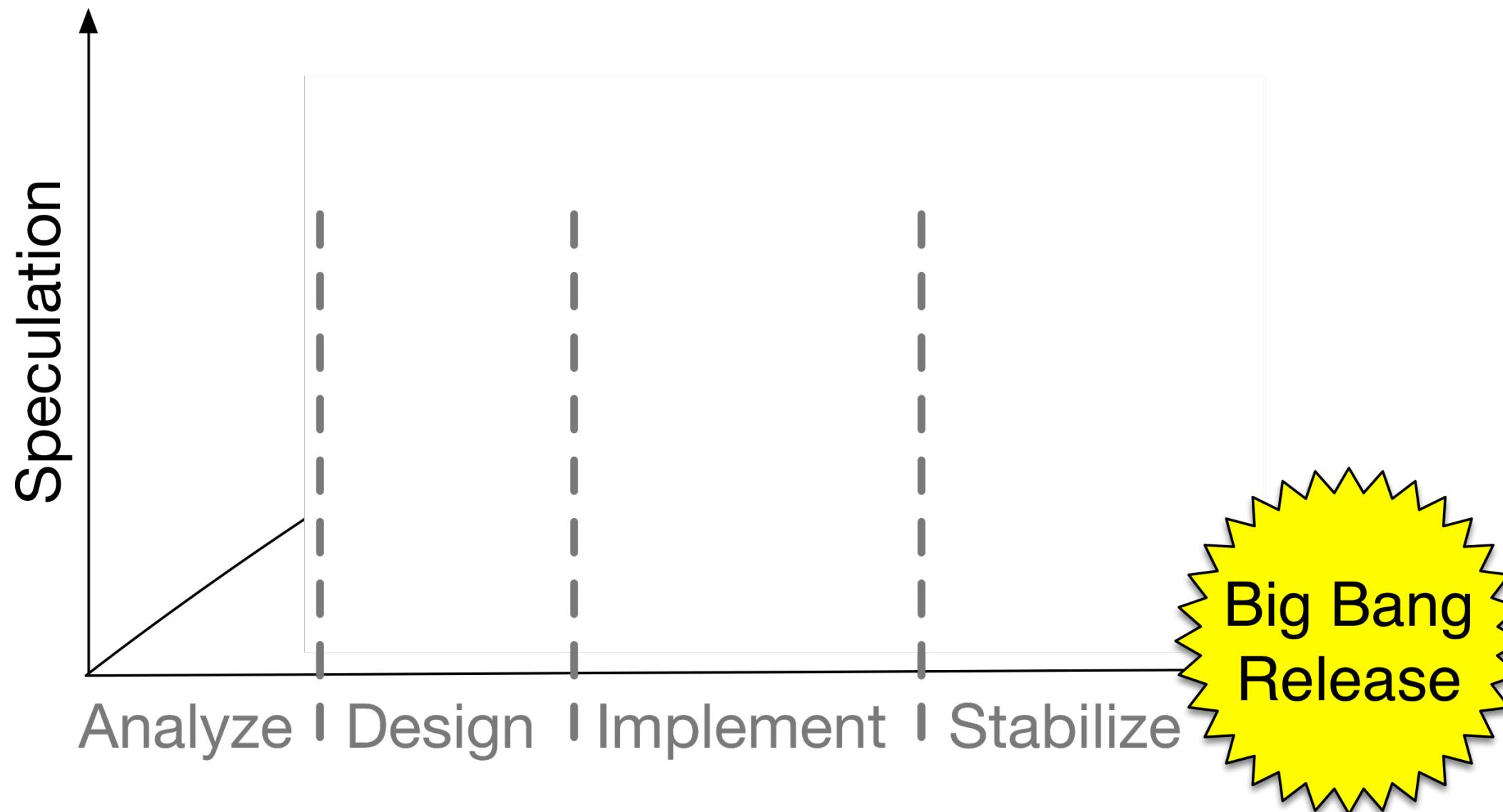
Feedback Latency



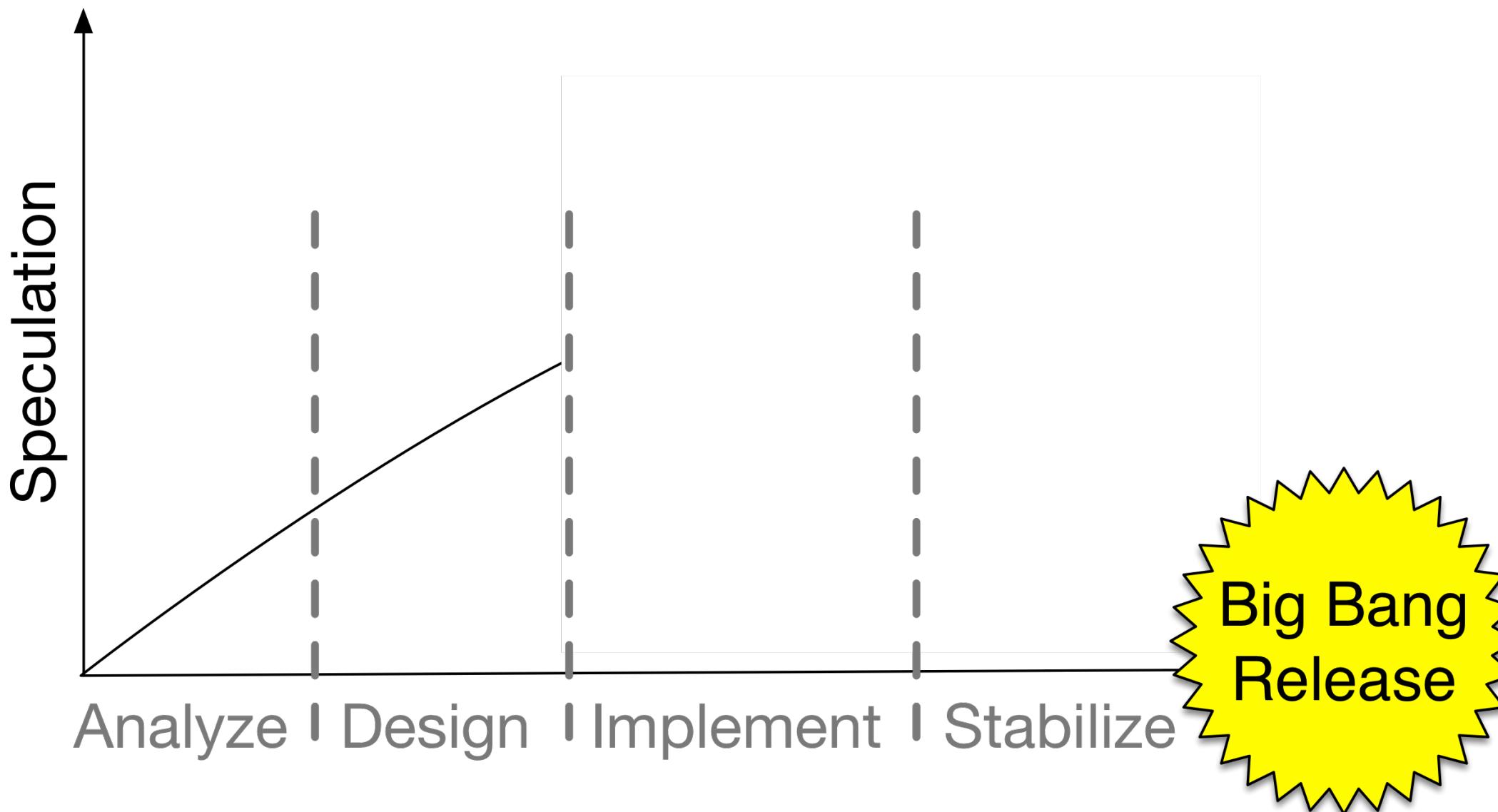
A Traditional Long Feedback Cycle *(and why no one does this anymore)*



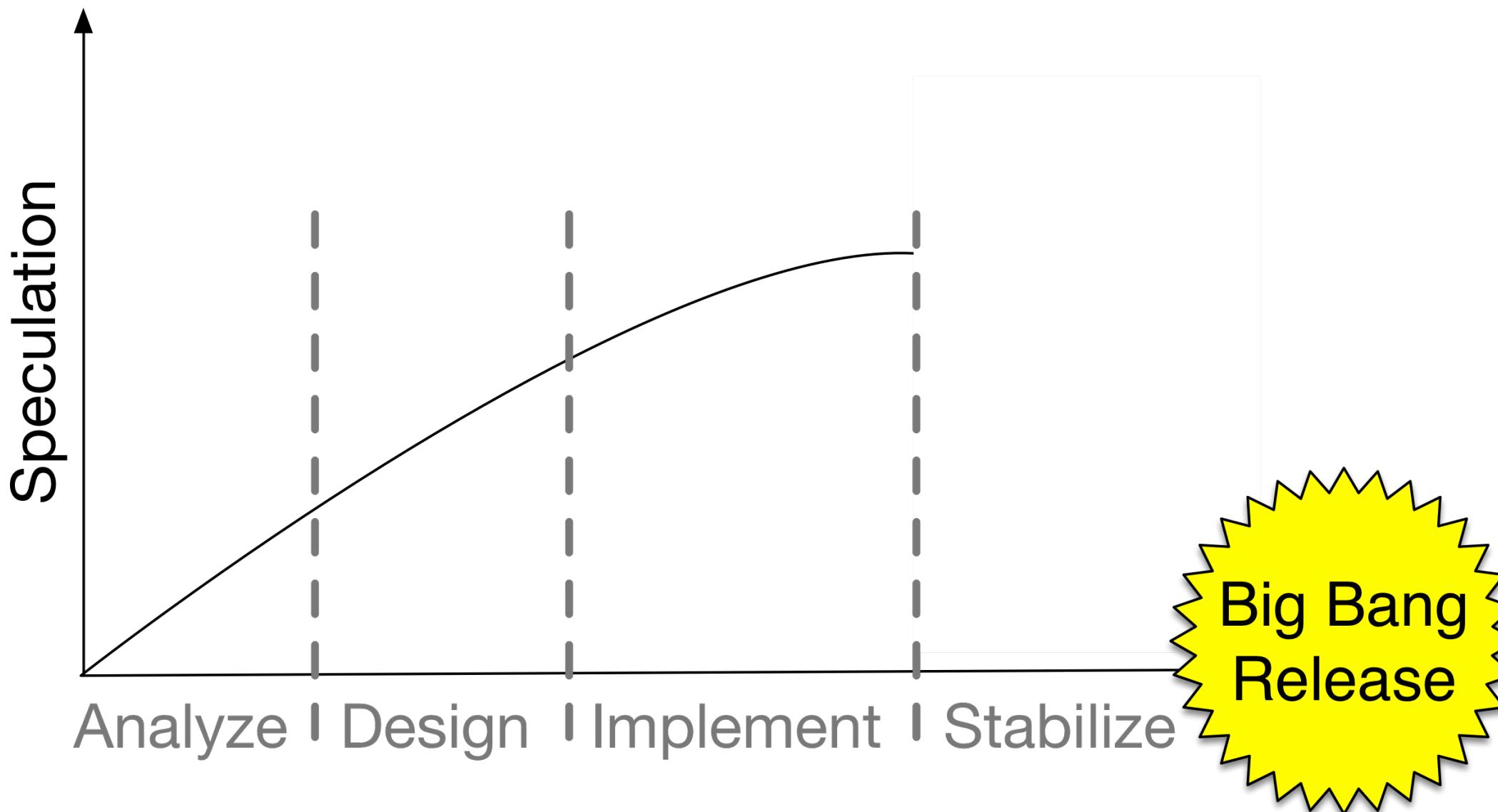
Latency, Speculation, and Risk



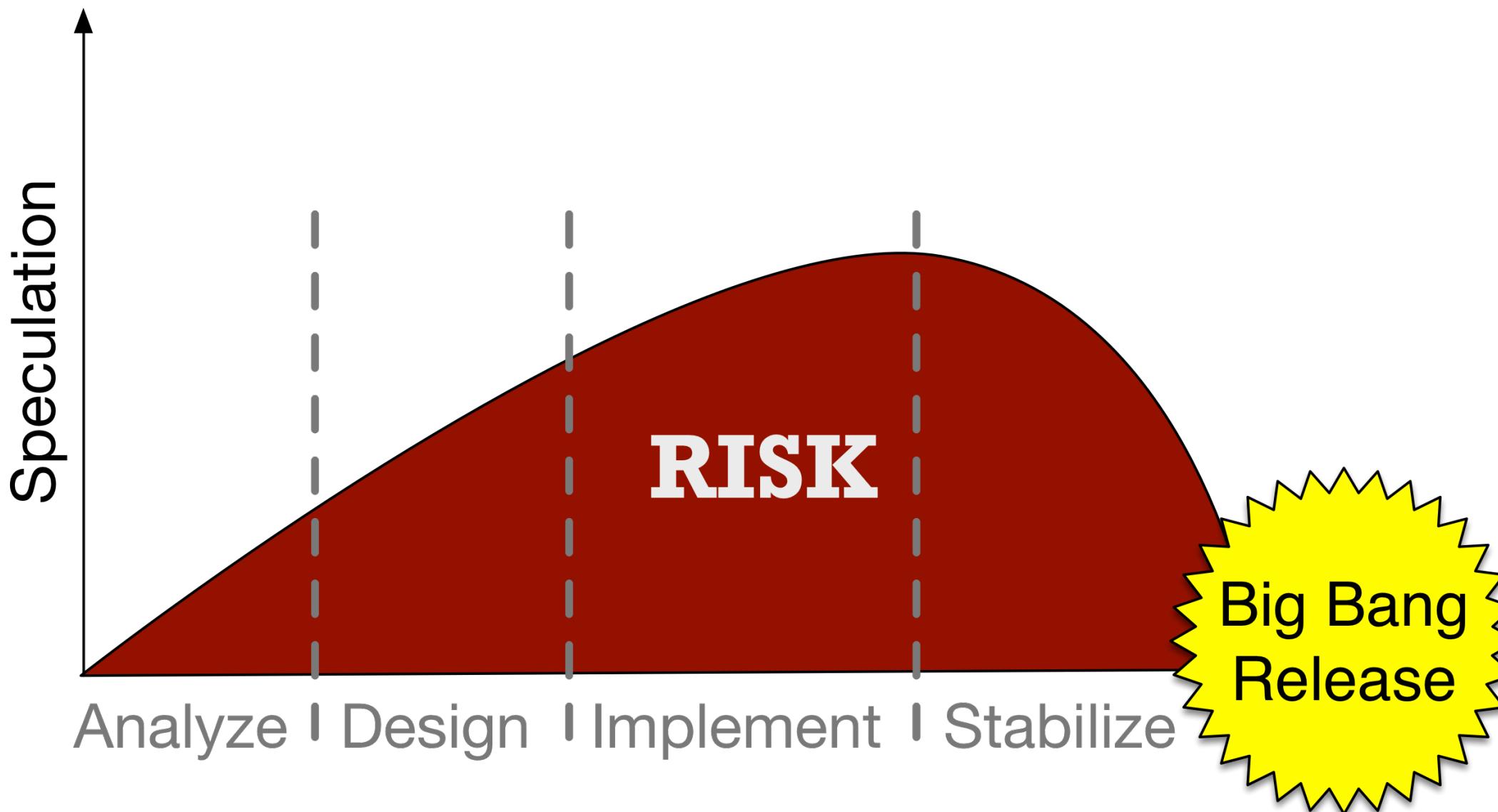
Latency, Speculation, and Risk



Latency, Speculation, and Risk



Latency, Speculation, and Risk

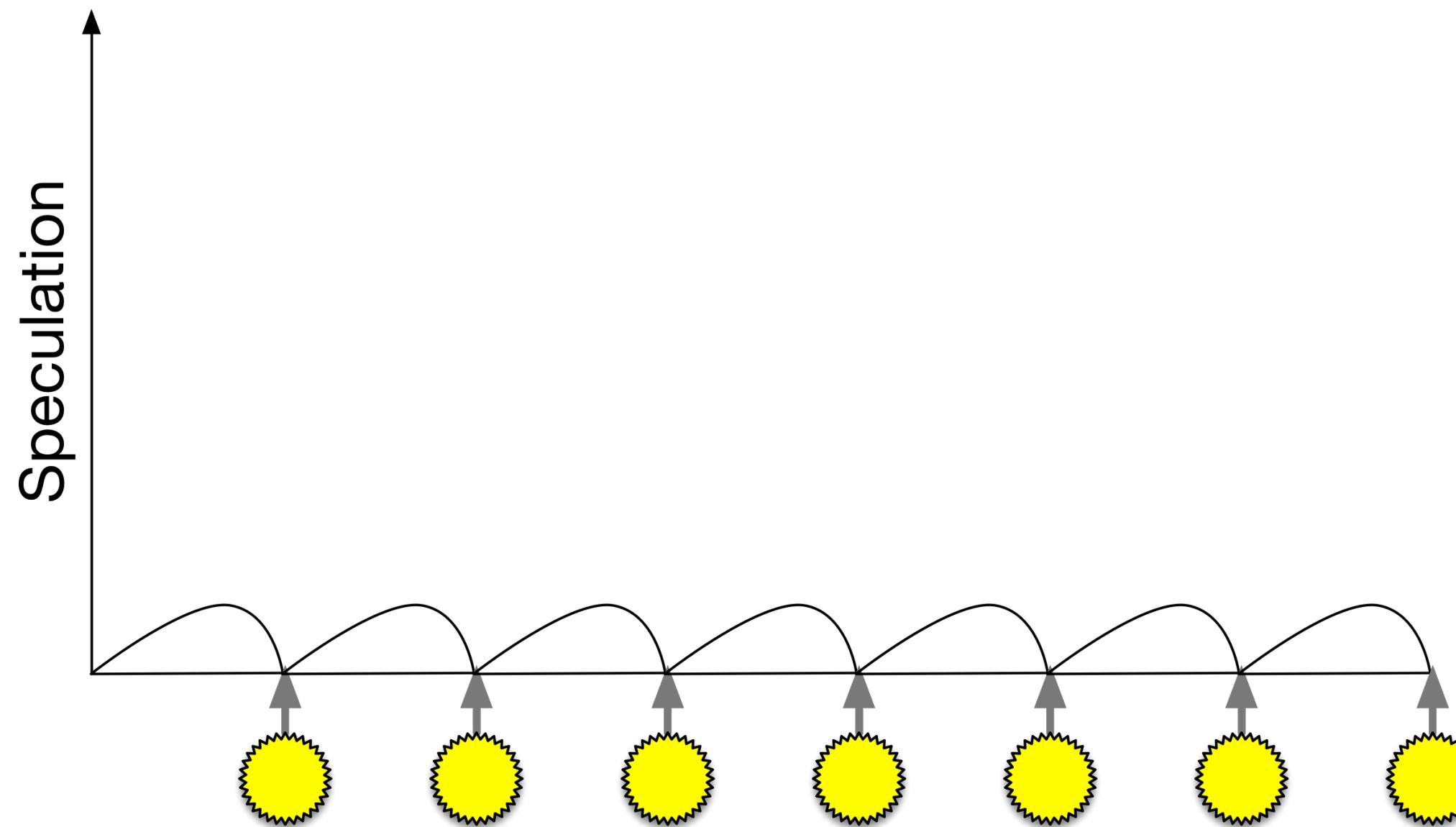


Empirical Evidence Trumps
Speculation
Every. Single. Time.

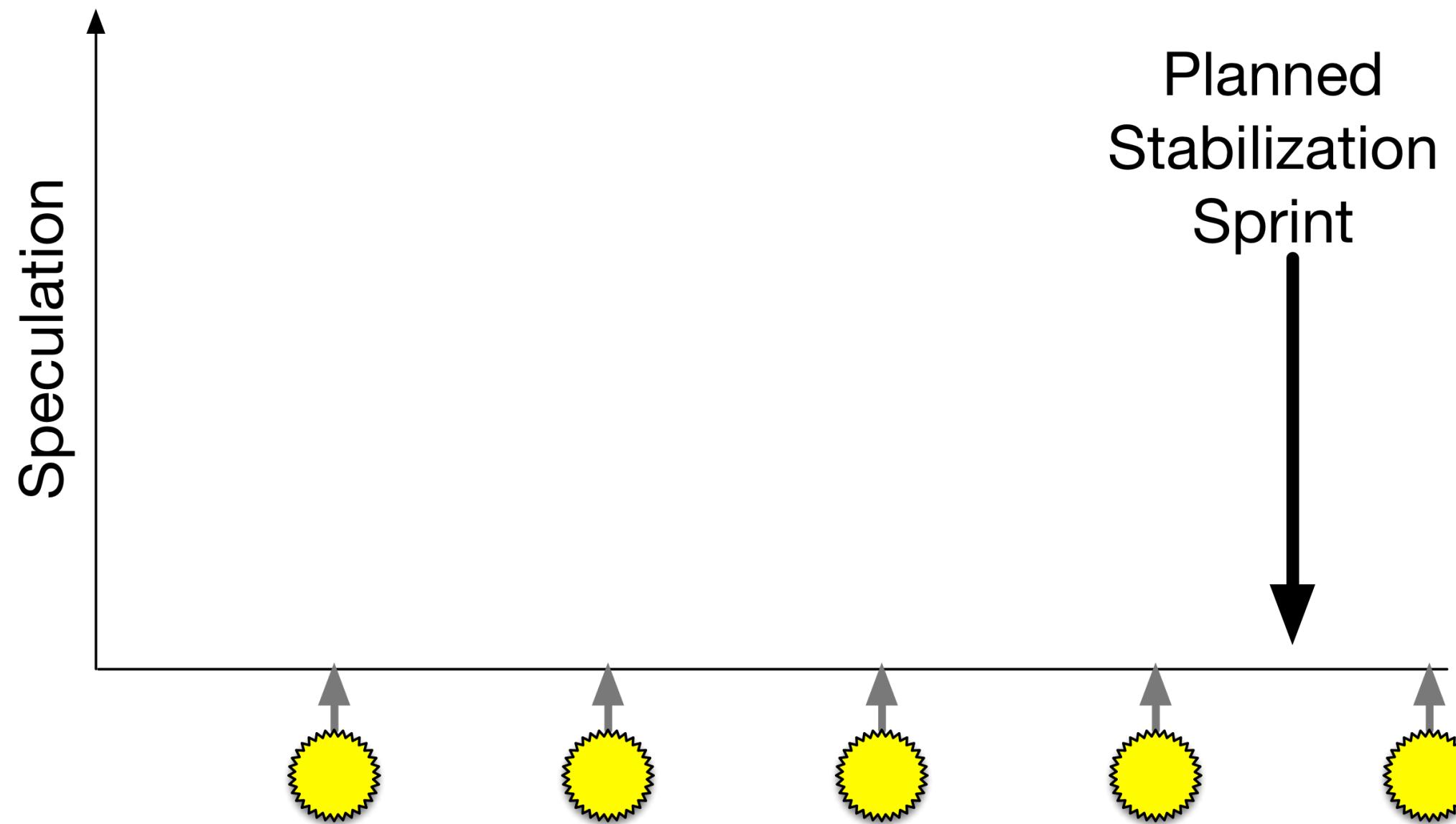
Time Value of Information

A little information today is
worth more than that same
information tomorrow.

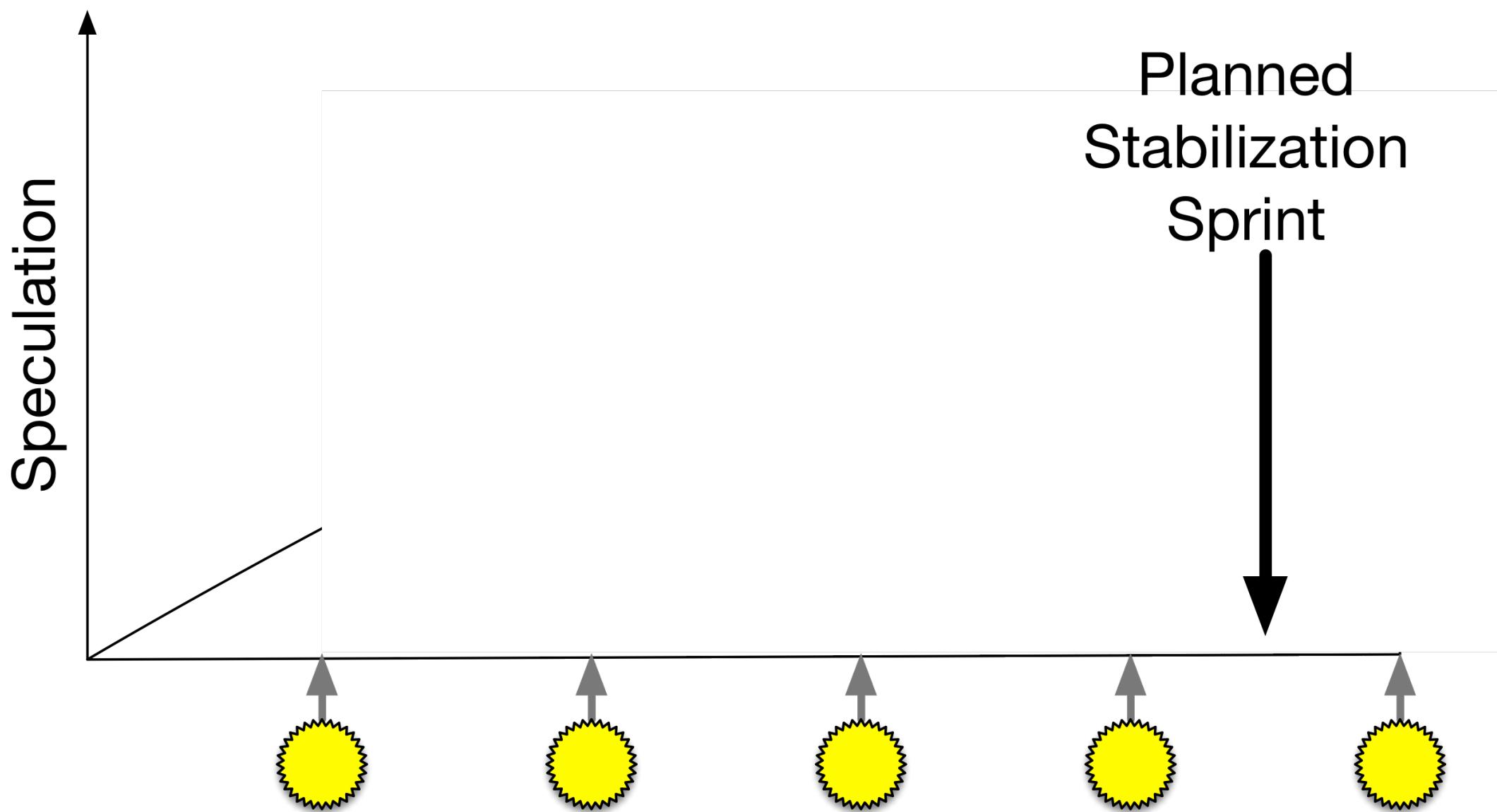
Eliminate Speculation Buildup



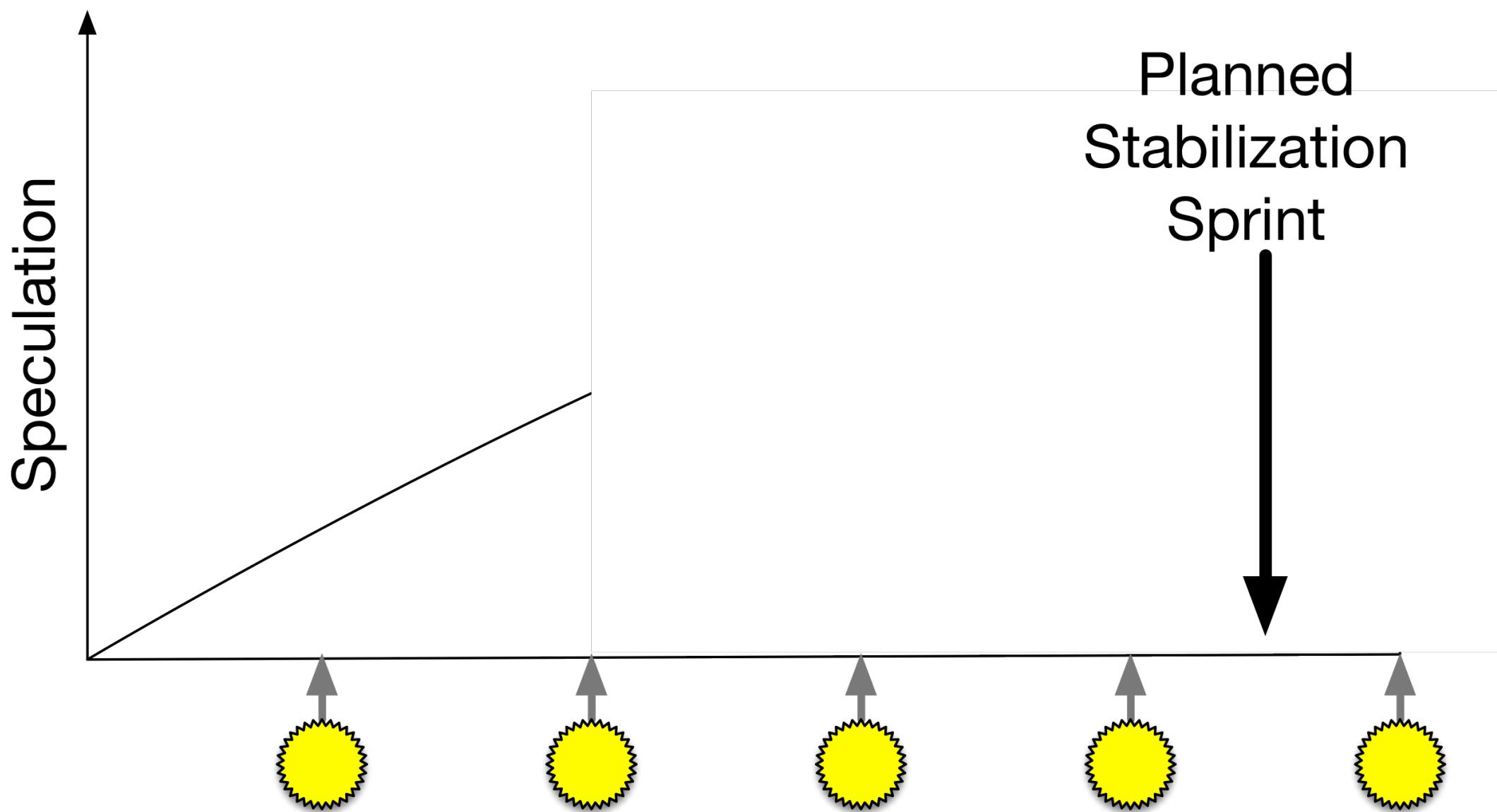
Beware Fragile



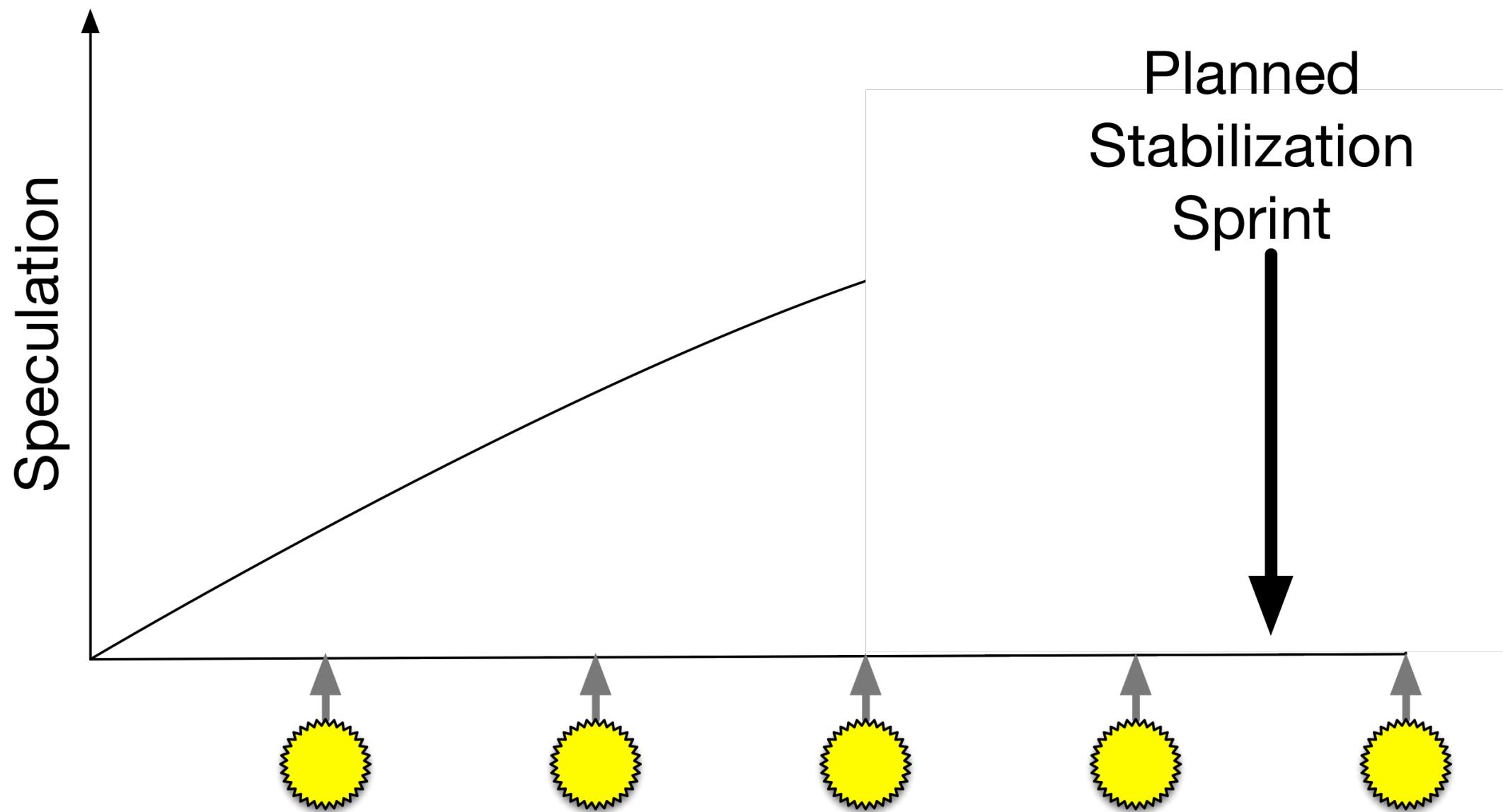
Beware Fragile



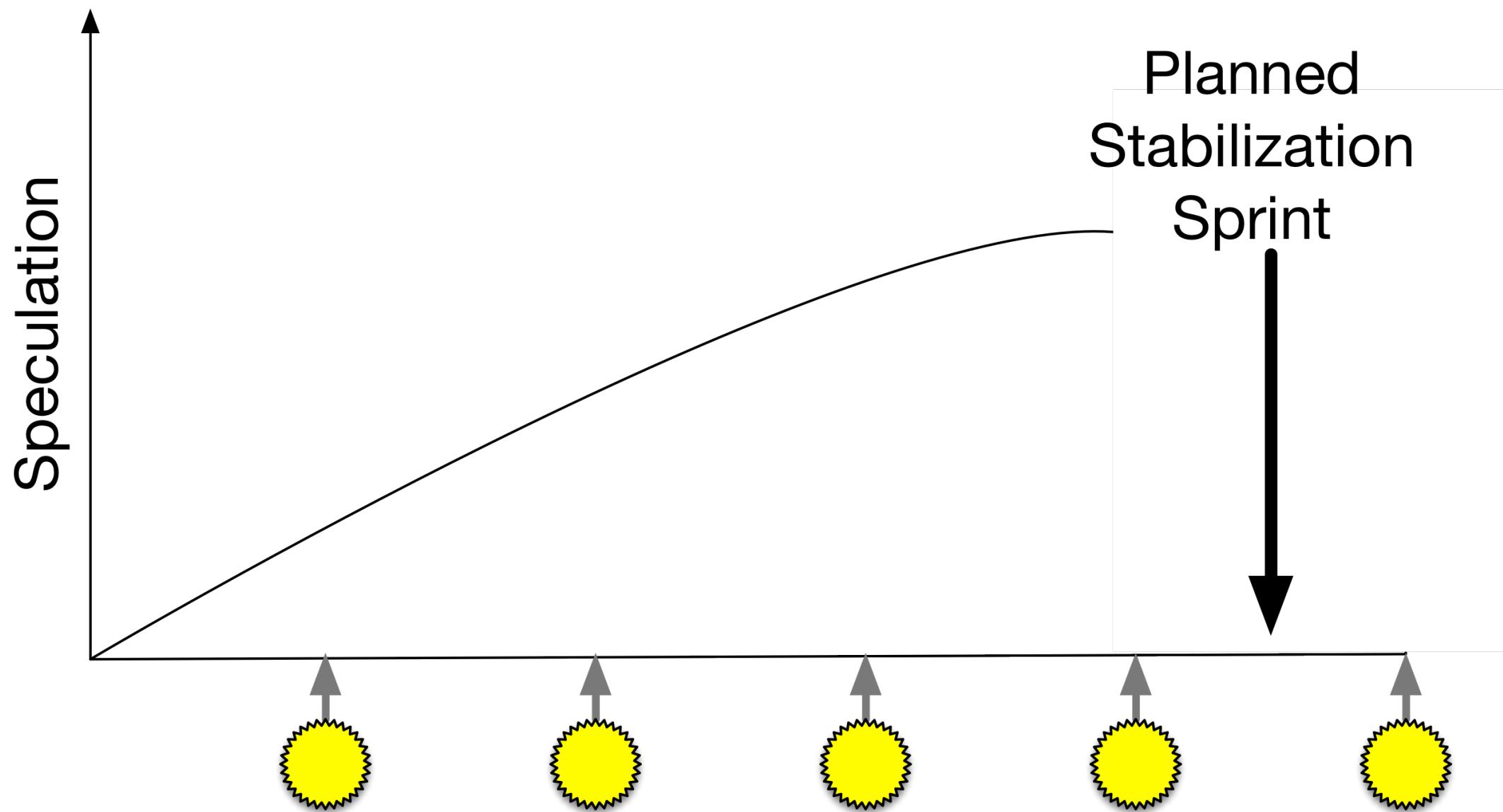
Beware Fragile



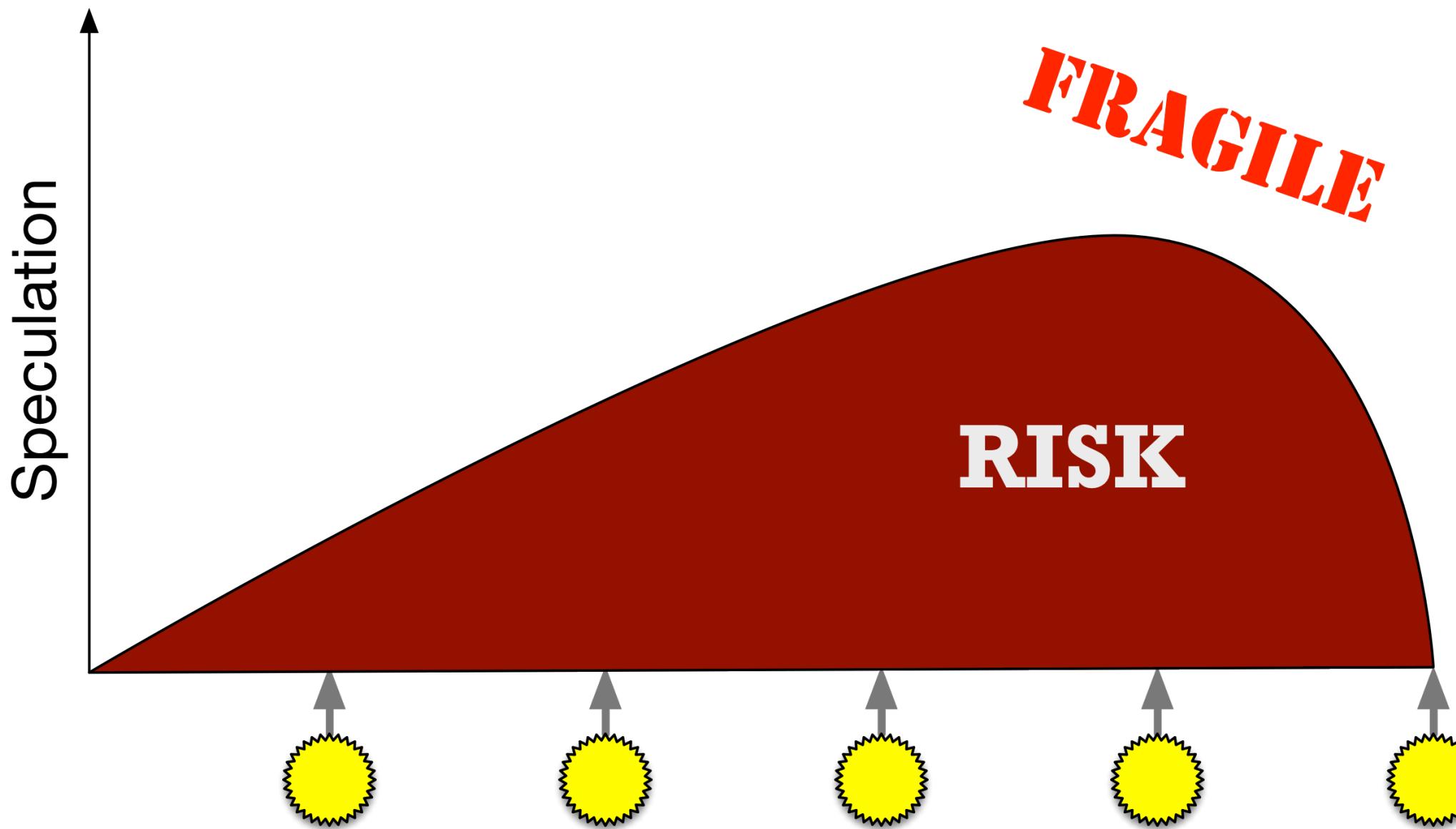
Beware Fragile



Beware Fragile

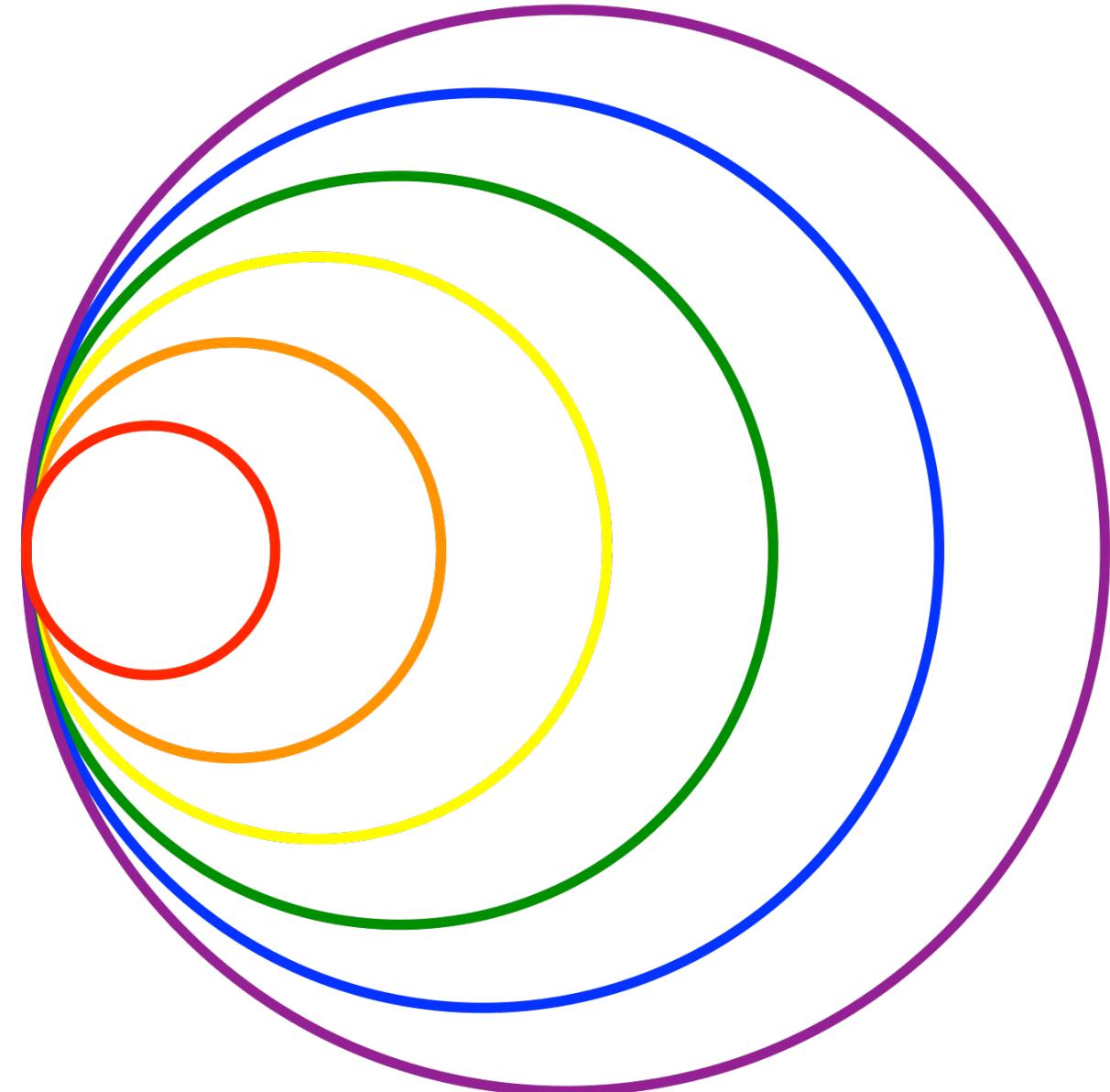


Beware Fragile



Different Kinds of Feedback

Local integration and unit testing
Automated tests in CI
Story acceptance
Exploratory testing
Environment monitoring/metrics
(canaries)
Dog fooding
Support tickets



Visibility



Fast-and-Complete Feedback Recipe

Check + Explore + Release

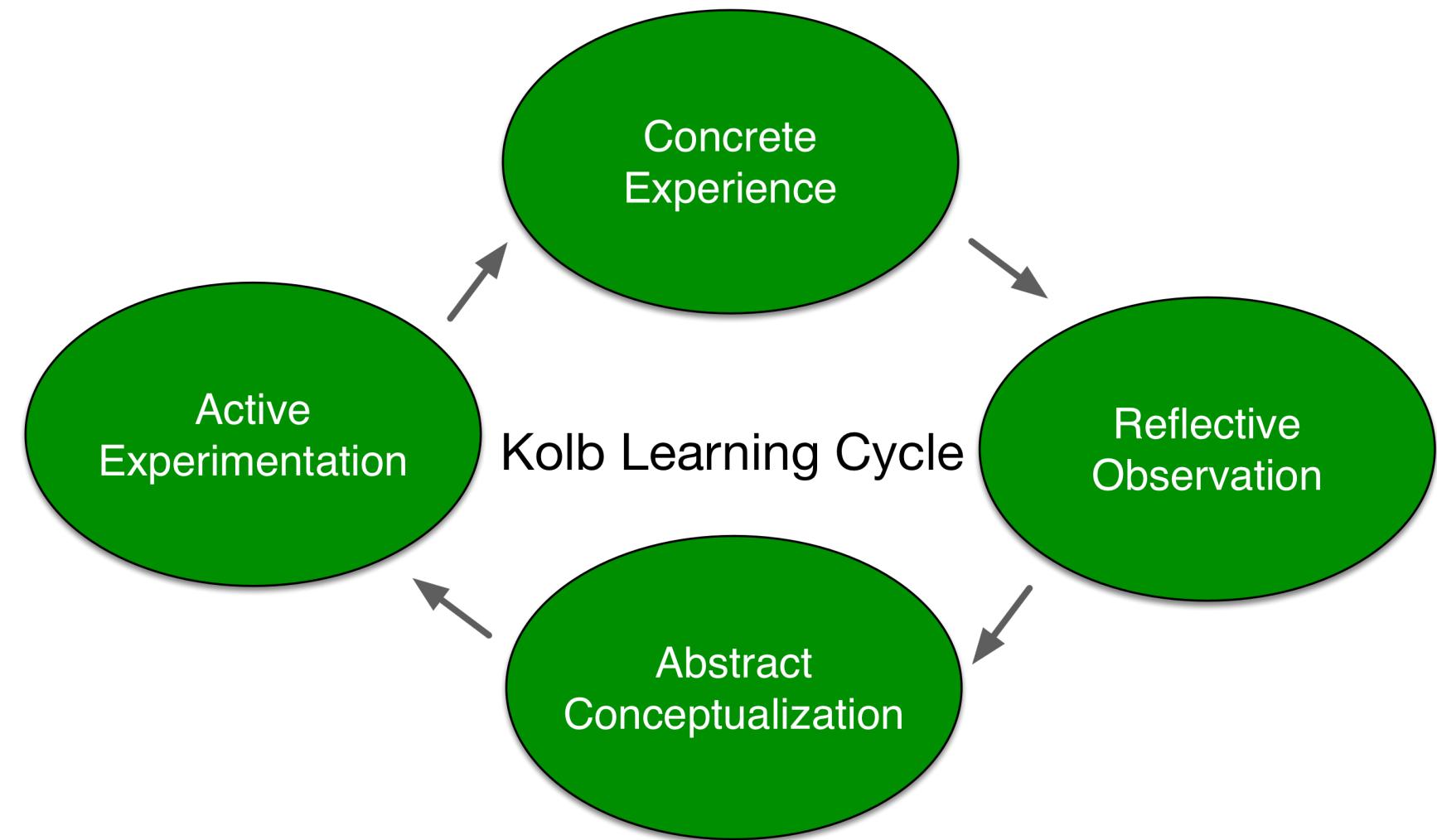
- Automatically **check** that the emerging system behaves as expected with every new change.
- **Explore** both to discover other risks and to verify that the checks are sufficient.
- **Release** early and often.

Tighten Feedback Loops

- Work in small pieces
- Find and squash wait states
- Parallelize
- Remove duplicate tests
- Drive tests to the lowest level possible

Secret Sauce

Fast Feedback Creates Learning Organizations



Where I Need Help

CI is deploying a big distributed system.
It can take 1-2 hours to run.
How do you tighten feedback cycles
for devs fixing a build?