Spotify R&D

Metrics-Informed Development

Laurent Ploix, Engineering Manager, September 2023

About me

Laurent Ploix

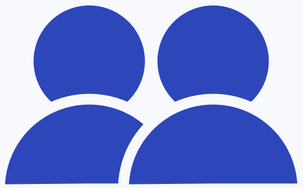
Engineering Manager
Platform Insights

Platform Insights' mission

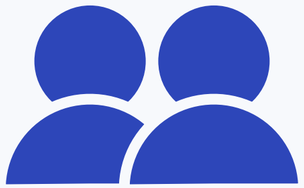
Provide data, metrics and insights to Spotify R&D to enable data-informed decisions that improve speed and success

A few years ago…

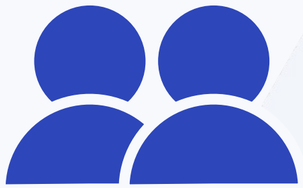
Product Manager in a Platform Team



Team
Want *actionable* metrics

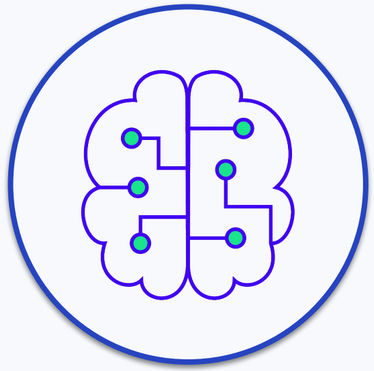


Users
Want *satisfaction* metrics



Management
Want *impact* metrics

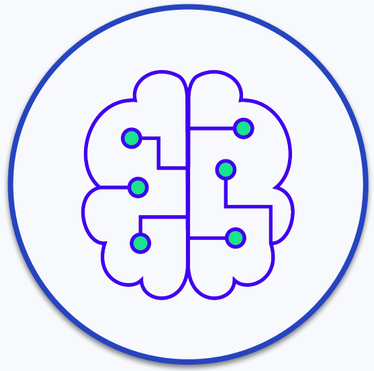
Agenda



A metric mental model

A metrics journey

Common questions & concerns



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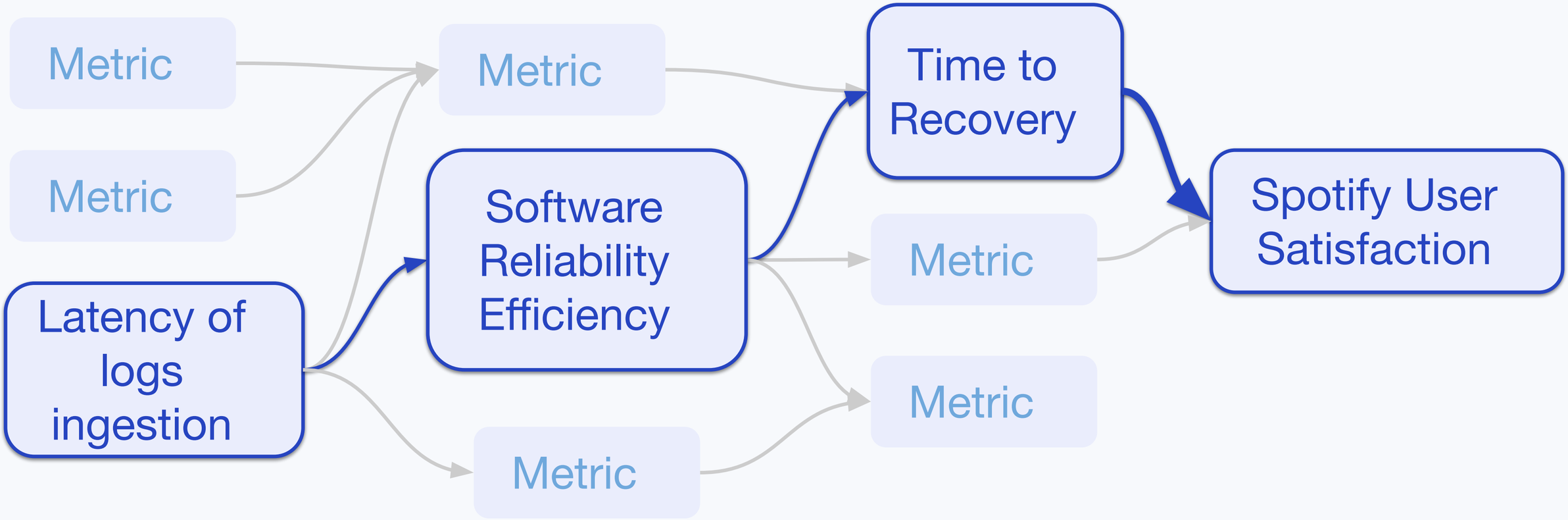
Common questions & concerns

A mental model for metrics

Leading	Lagging
Action-focused	Value / Impact-focused
Noisy	Low noise
Actionable	Move slowly
Tactical	Strategic
Gameable	Trickier to measure
Vanity Metrics	

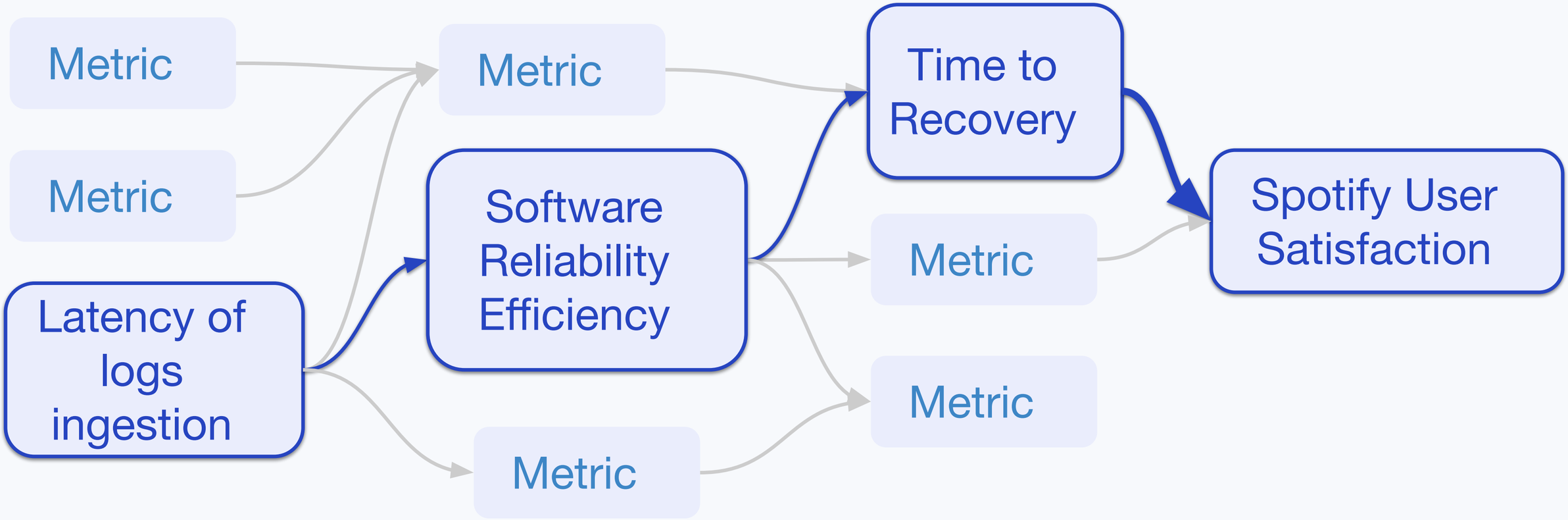
Metrics “influence” each other, leading to lagging



Leading / Actionable

Lagging / Value Creation

Metrics “influence” each other, leading to lagging



Leading / Actionable

Lagging / Value Creation

Spotify R&D

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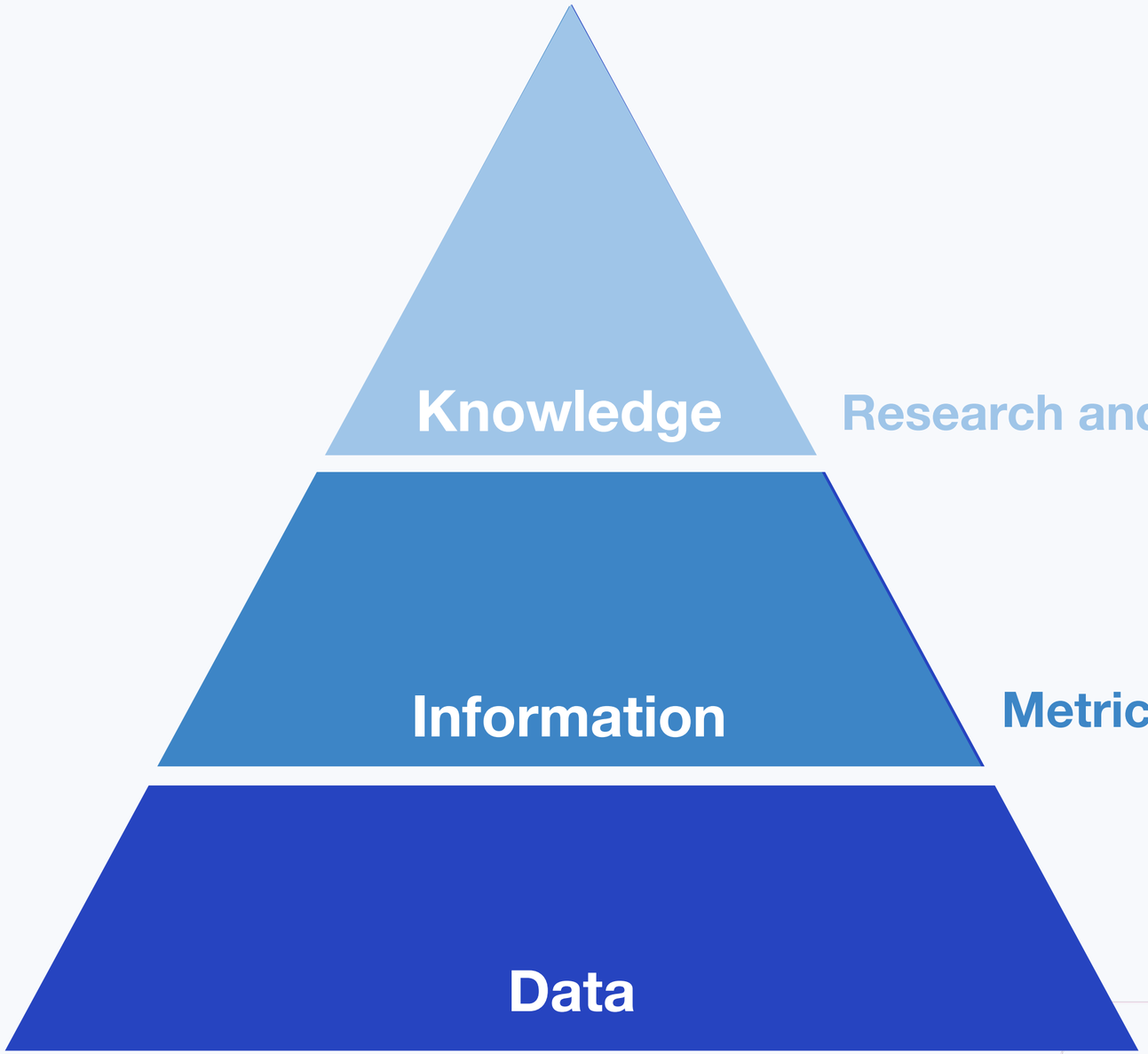

Research and Insights

Metrics and Dashboards

Raw data

Spotify R&D

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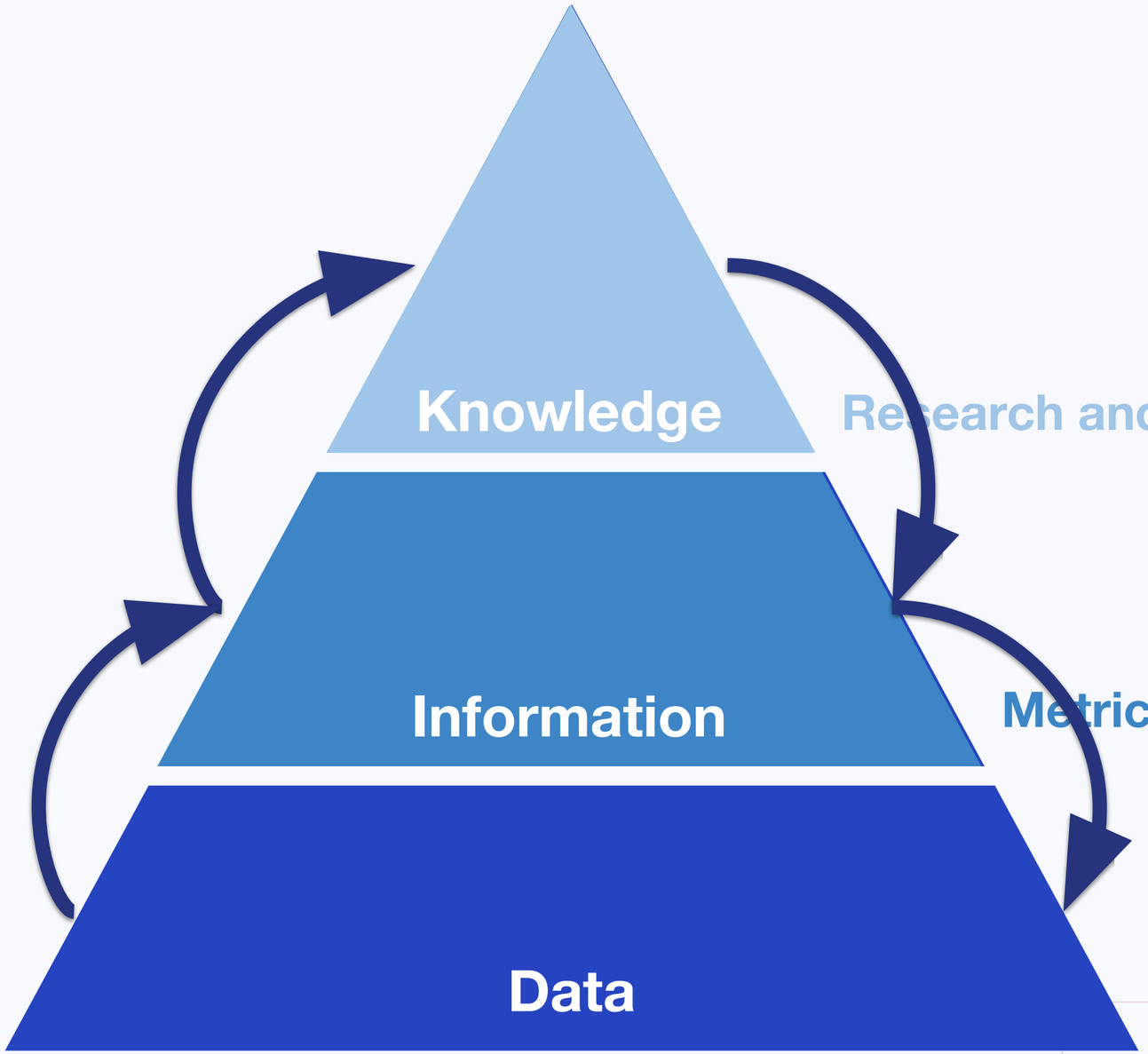


Research and Insights

Metrics and Dashboards

Raw data

Metrics are products

A metric mental model

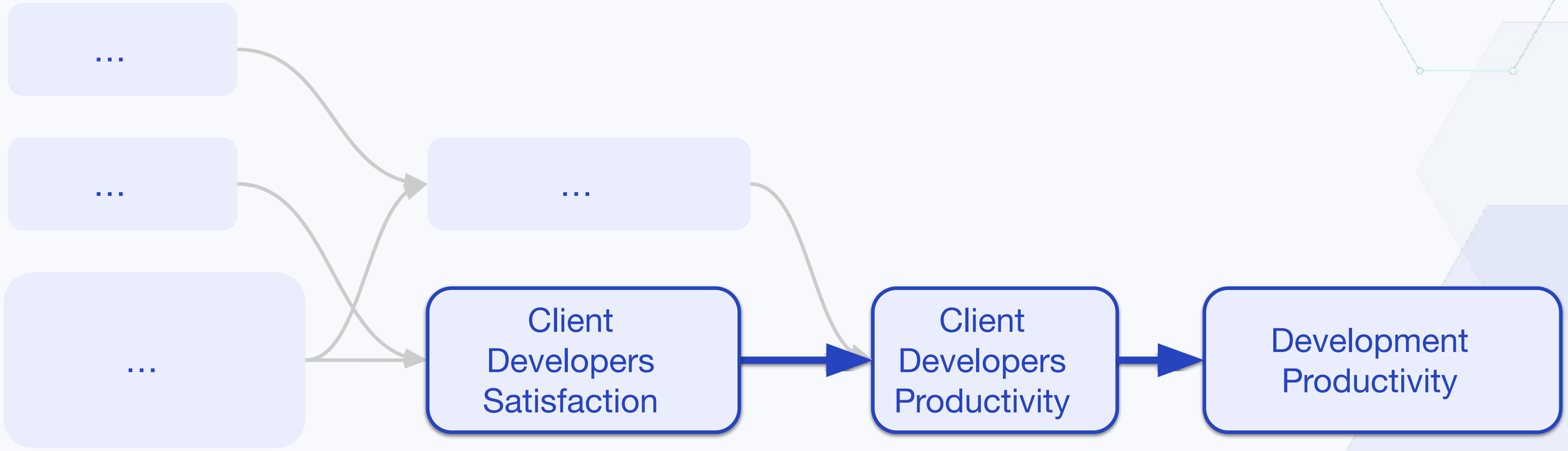
A metrics journey

Common questions & concerns

Problem: A typical BASIC situation

- 10: It’s planning time
- 20: We don’t have good metrics
- 30: Agree on a metric we don’t measure
- 40: Development starts
- 50: Ignore the metric and data collection
- 60: GOTO 10

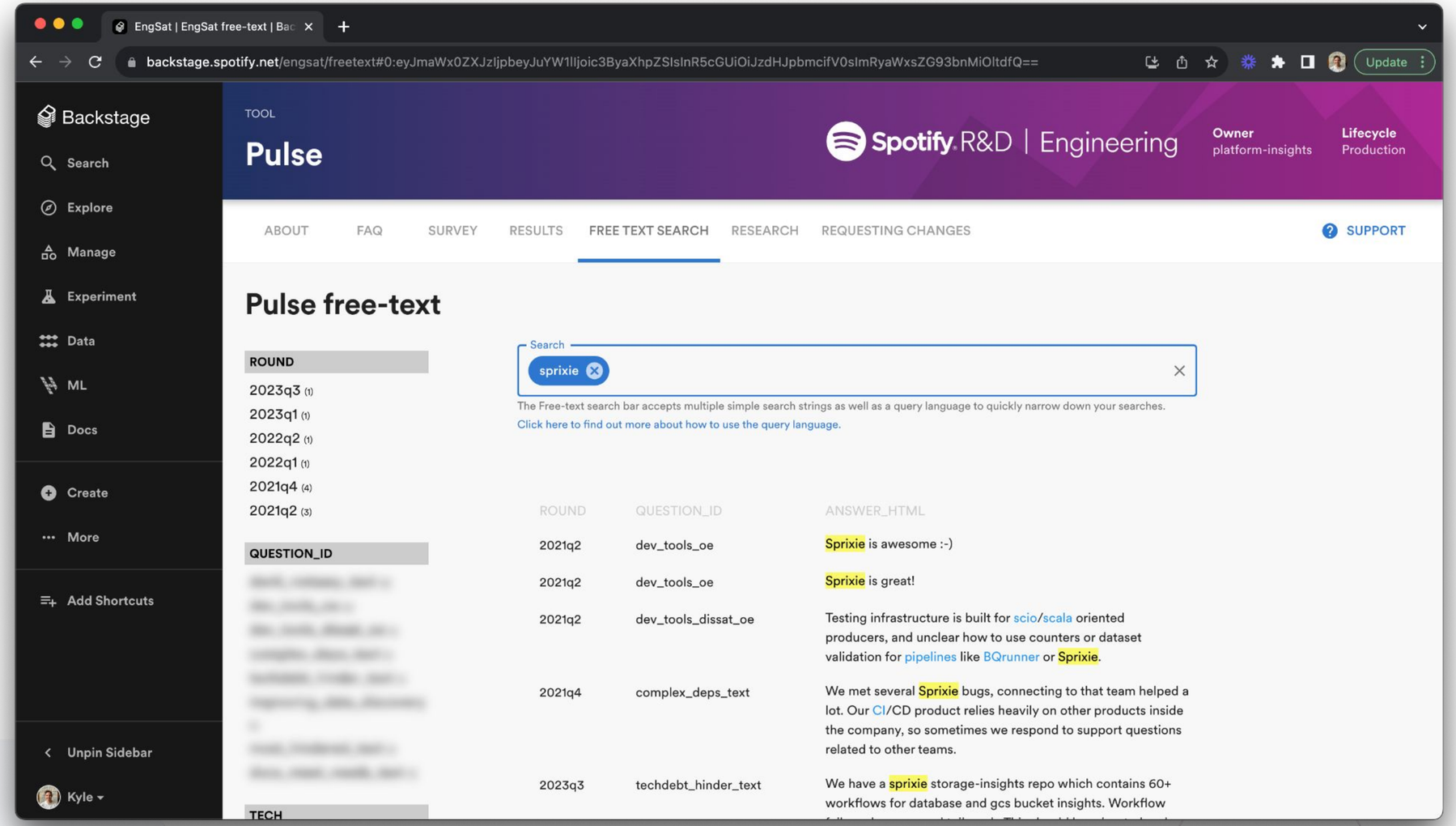
Metrics: A Success Story.



Leading / Actionable

Lagging / Value Creation

Spotify EngSat / Pulse



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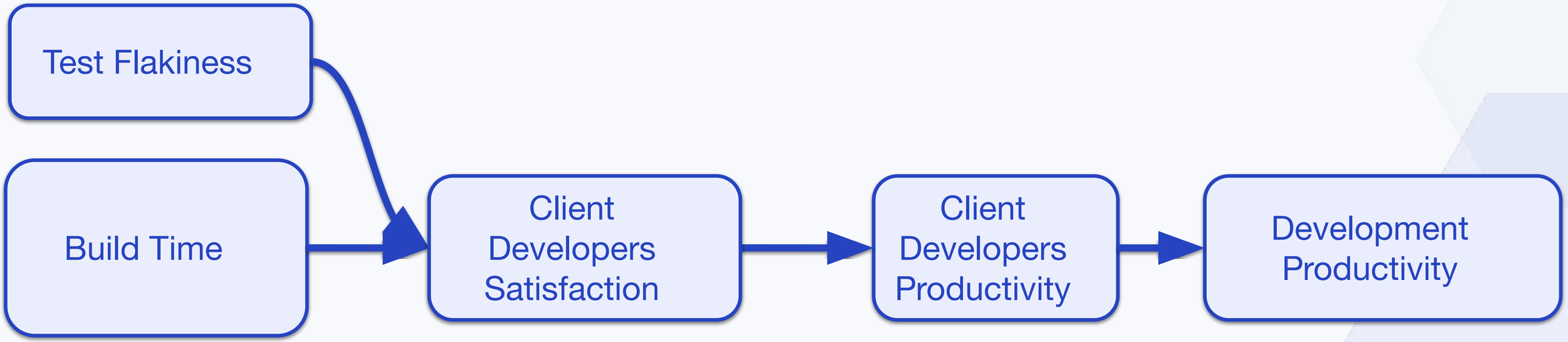


Leading / Actionable

Lagging / Value Creation

Metrics: A Success Story

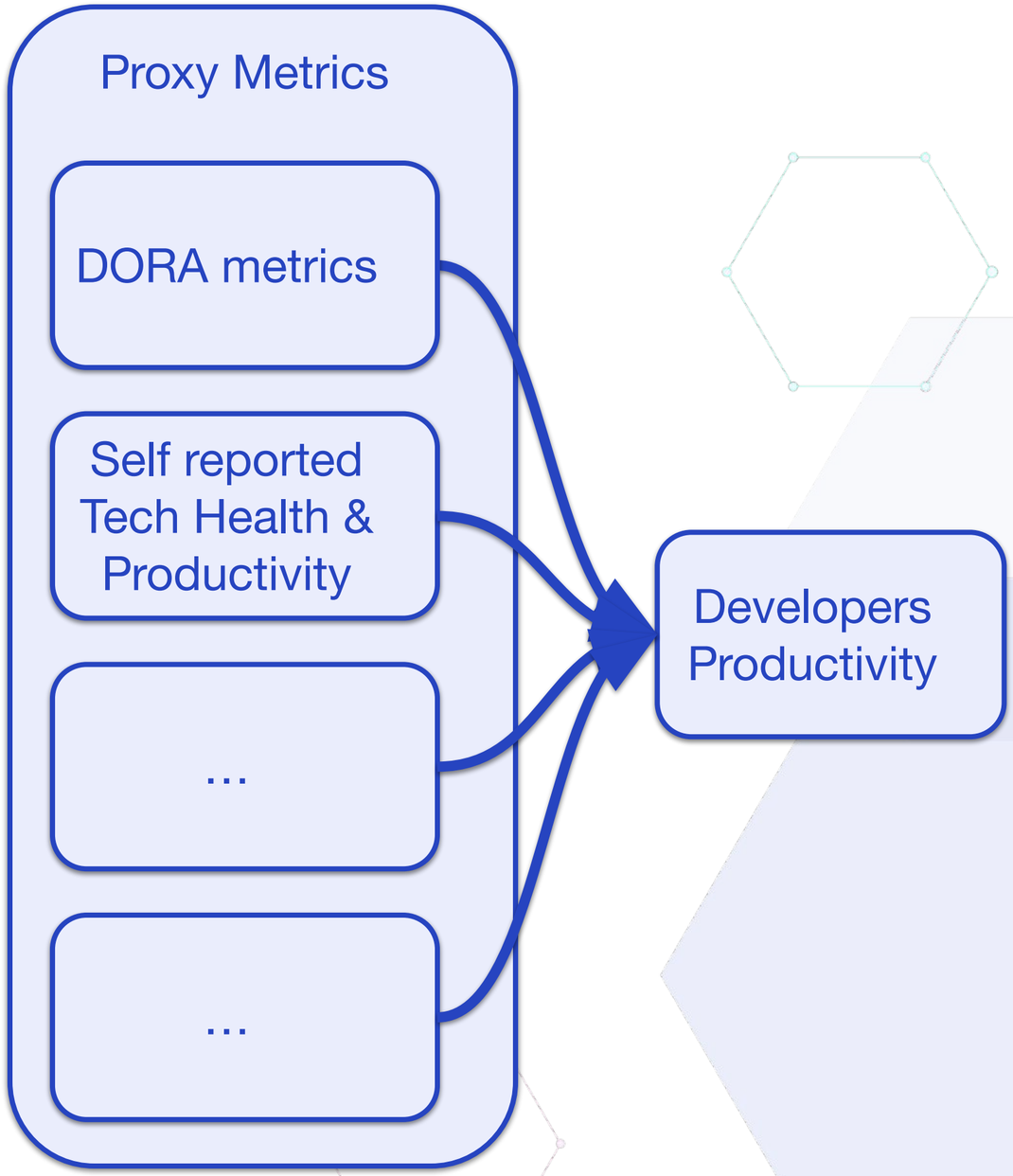
Android Developer's Self-reported Productivity:

Overall, in the past 3 months how productive have you felt at work at Spotify?

The Productivity Case

- Ask people!

- “Proxy metrics”
  - Imperfect
  - Necessary
- Contextualize them
- Trends > Plain value
- Trigger conversations



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Common questions & concerns

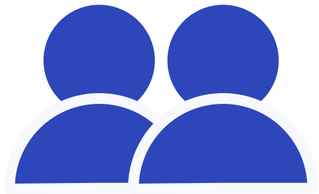
But…

- What about data Quality?
- Can we really trust self reported metrics?
- This metric does not cover every case
- This metric is flawed in some way
- My Metric depends on external factors I don’t control

What metric for my OKR?

1. Sensitive to changes you will implement
2. Bet: Aligned with value creation
3. Available within time horizon

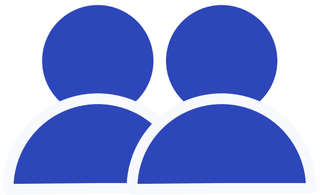
When to start… and who is accountable?



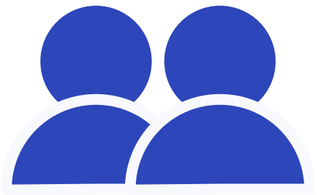
Management
Role model

Define common set of metrics and bets

Review metrics regularly



Product Managers
Prioritise data collection and promote metrics-informed decisions

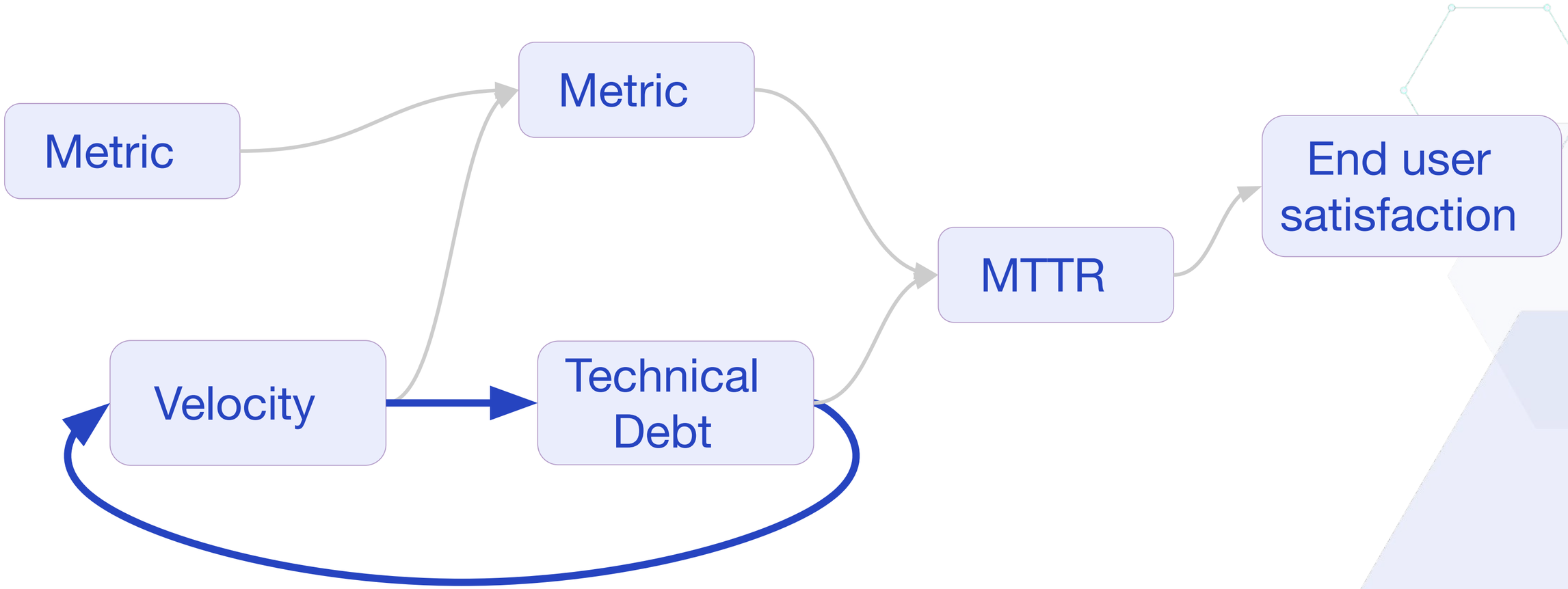


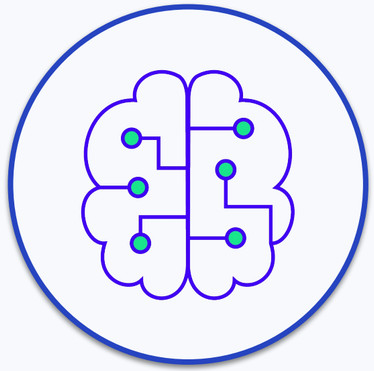
Engineering
Focus on actionable metrics

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

...for someone who benefits from the metric looking good...

But… Is that really an oriented graph?





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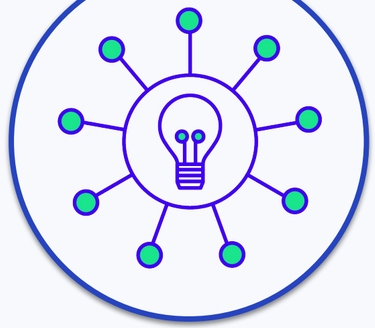


Common questions & concerns

Key takeaways

- Align product, engineering, business
- Metrics are products
- Start with surveys
- Build your data / information / knowledge stack

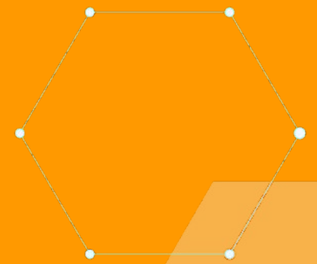
Start measuring your R&D productivity with the:

Pulse plugin for Backstage

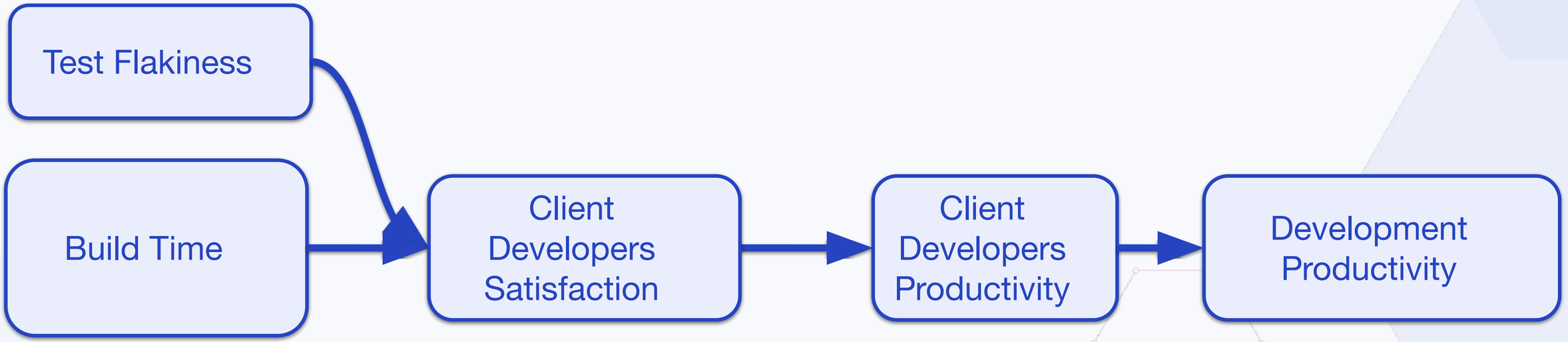
backstage.spotify.com/plugins/pulse

Thank you

STOP HERE



Continuous Improvement Methodology



The Productivity Case: The DORA Case

- Reminder
  - Deployment Frequency
  - Deployment failure rate
  - Time to Recovery
  - Lead time

- Survey people, then implement

- Think “Local” DORA metrics