



BUILD FEATURES NOT FRAGILE FOUNDATIONS

André D. Henry

Dir. Platform Engineering, Fleetio

October 17th, 2025

ANDRÉ D. HENRY

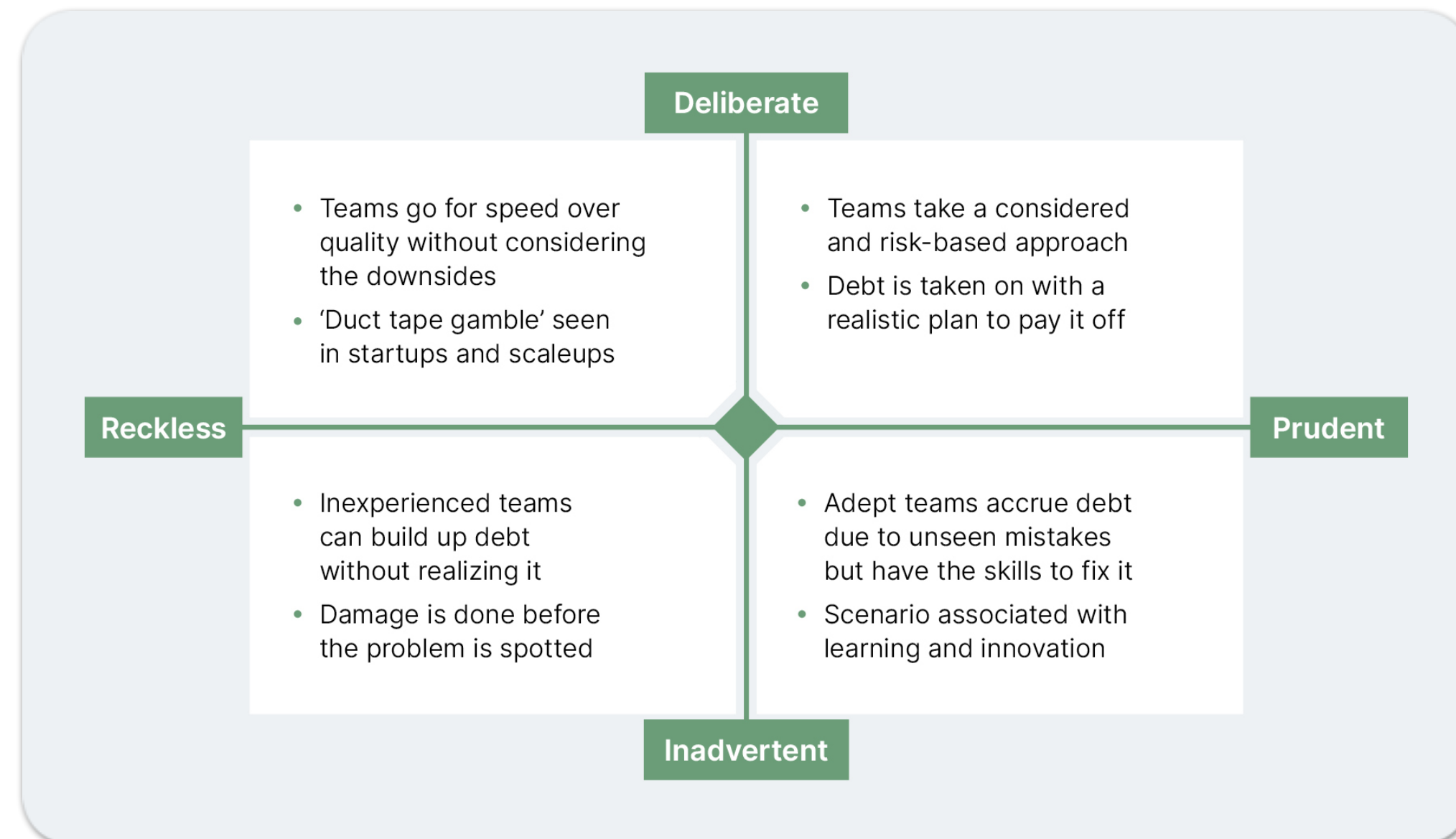
DIR. PLATFORM ENGINEERING

- I Build Great Teams That Build Amazing Things
- Builds With: Code, Math, Science, Electronics
- Software, Infrastructure & Platform Engineering
- 100% Team Cat

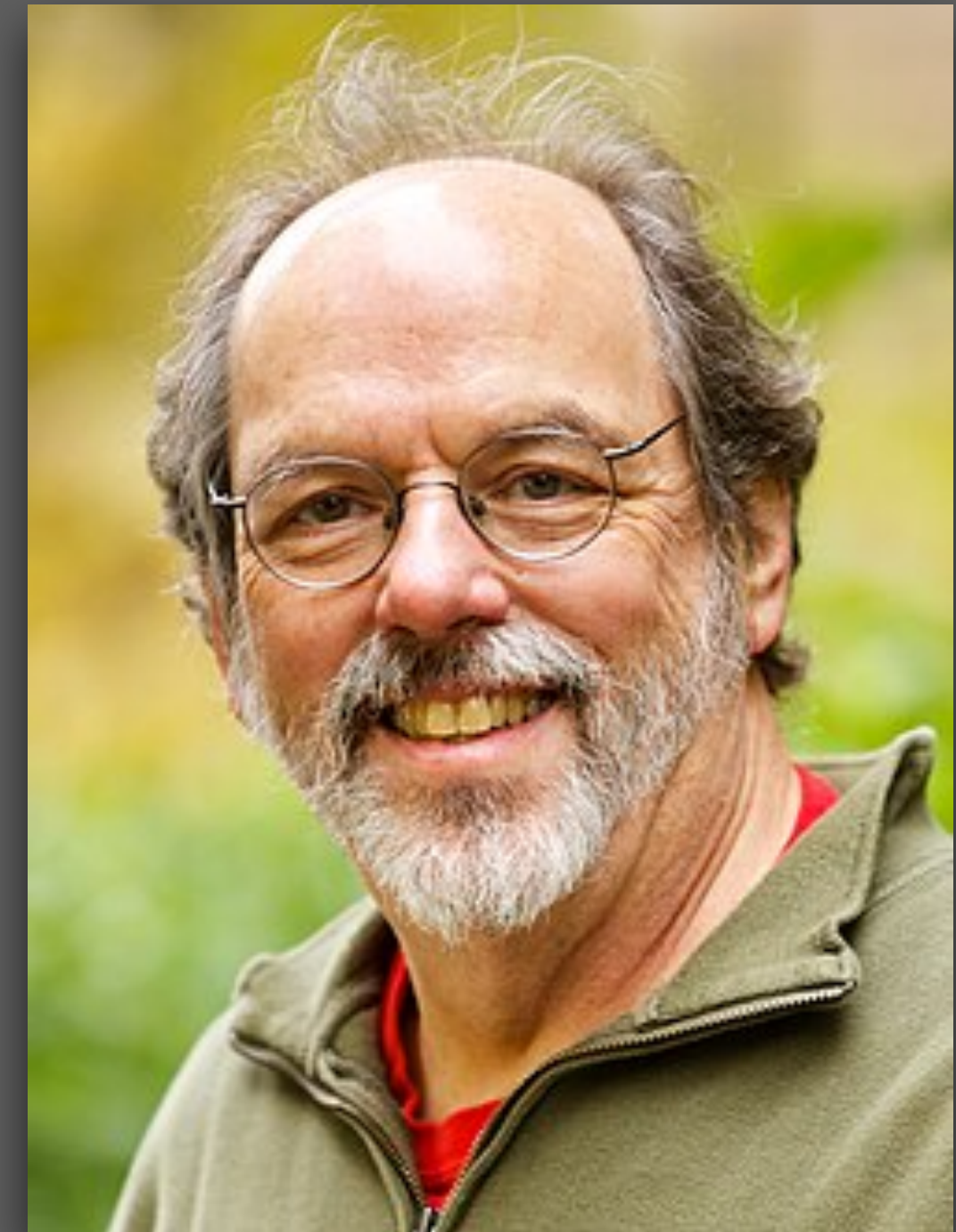


TECH DEBT

"Shipping first time code is like going into debt. A little debt speeds development so long as it is paid back promptly ... The danger occurs when the debt is not repaid ... Entire engineering organizations can be brought to a stand-still under the debt load of an unconsolidated implementation."¹



thoughtworks⁴



Howard (Ward) G. Cunningham²

**EVERY LINE OF CODE
TODAY IS TECHNICAL
DEBT TOMORROW.
—ME**

THE PRICE OF UNMANAGED TECHNICAL DEBT



Security



Team Velocity



Scalability



Customer Trust

TEAM & FEATURE VELOCITY



Frooxius soon BLFC
@frooxius.bsky.social

+ Follow

Would you rather...

- 1) Get the feature you really want next week, but every other feature delay is now doubled
- 2) Get your feature in next few months, but all other features happen sooner

This is tech debt in a nutshell and why we don't do hacky solutions.

September 9, 2025 at 8:35 AM Everybody can reply



Nick Scipione
@nickscip.bsky.social

+ Follow

One insidious thing about creating tech debt is it not only slows down future work for yourself but also severely hampers everyone else who has to pick up after you

September 8, 2025 at 5:28 PM Everybody can reply



Vincent Dénier³

CUSTOMER TRUST

2022 - SOUTHWEST AIRLINES

The Airline was required to issue \$600 million in refunds and pay over \$140 million in financial penalties. The failure stemmed from technical debt in its crew scheduling systems, which collapsed during a surge in demand following the COVID pandemic. The incident dealt a significant blow to both the company's reputation and its finances.



SECURITY

- 2021 Log4Shell Vulnerability (CVE-2021-44228)
- Outdated Log4j library
- Delayed dependency management

We are just 1
version behind!

2 Active Exploits

50 resolved CVEs

10 Patch Releases

1 Zero Day



SCALABILITY & GROWTH

- Financial Targets
- Innovation
- Organic Growth
- Expansion - New Markets



Data Center vs Cloud Native



THE DIMENSIONS OF TECHNICAL DEBT



Code & Architecture



Process



Security



Infrastructure

PRODUCTION SUPPORT TEAMS (SRE, DEVOPS, SECOPS)



Scalability

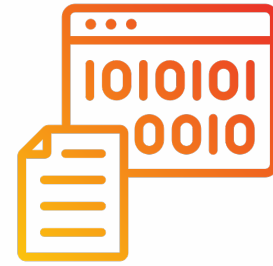


Customer Trust



Infrastructure

AI GENERATED CODE



Code & Architecture



Process

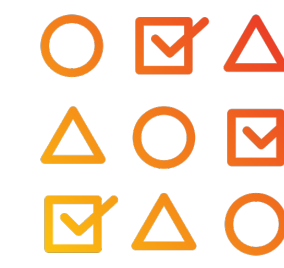


Security

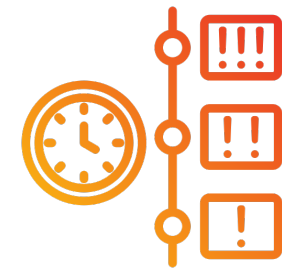
MANAGING TECHNICAL DEBT



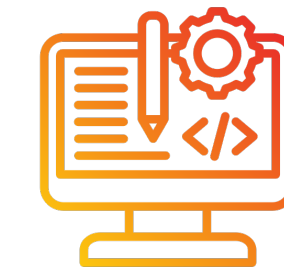
Discovery



Categorization



Prioritization



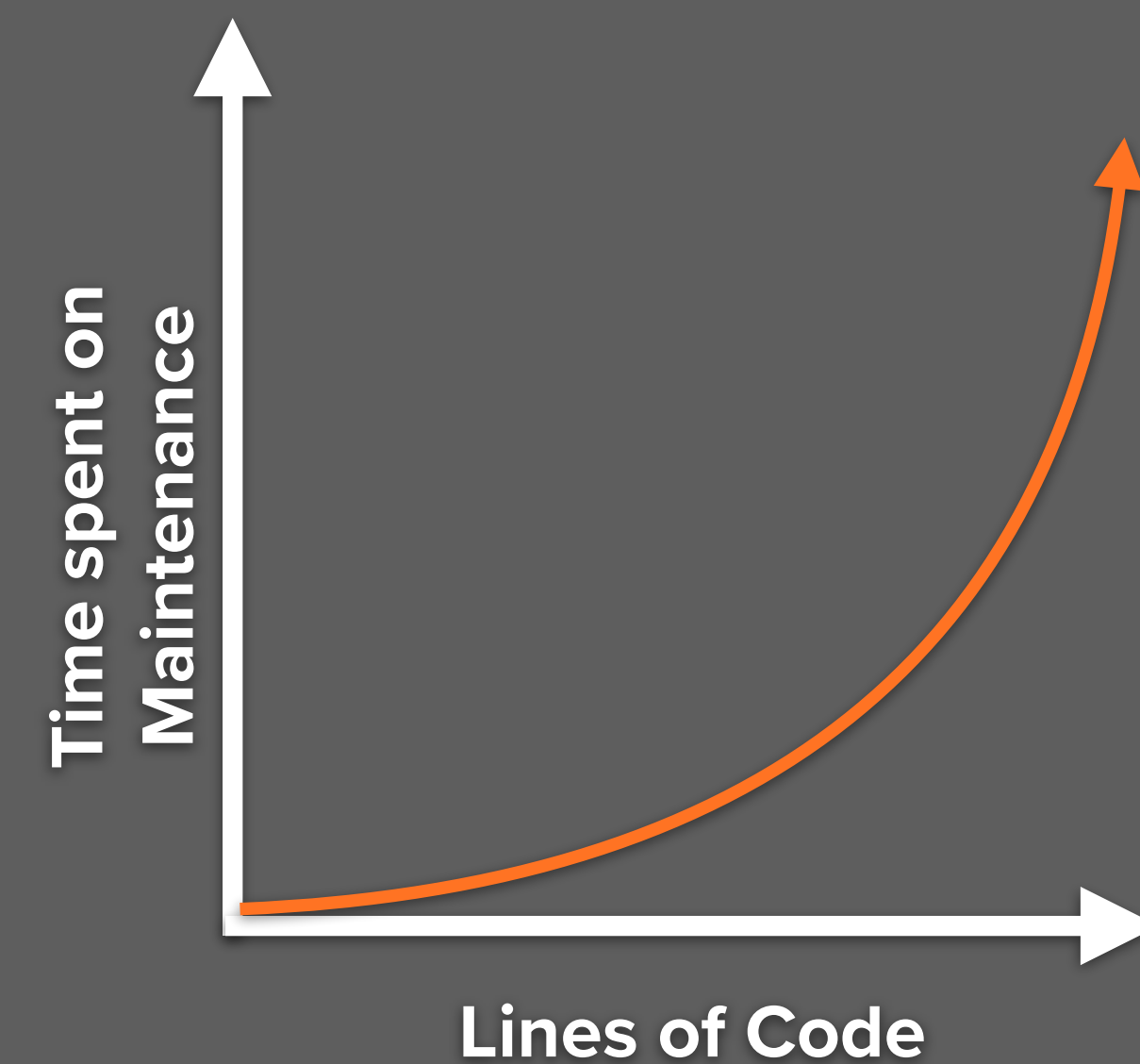
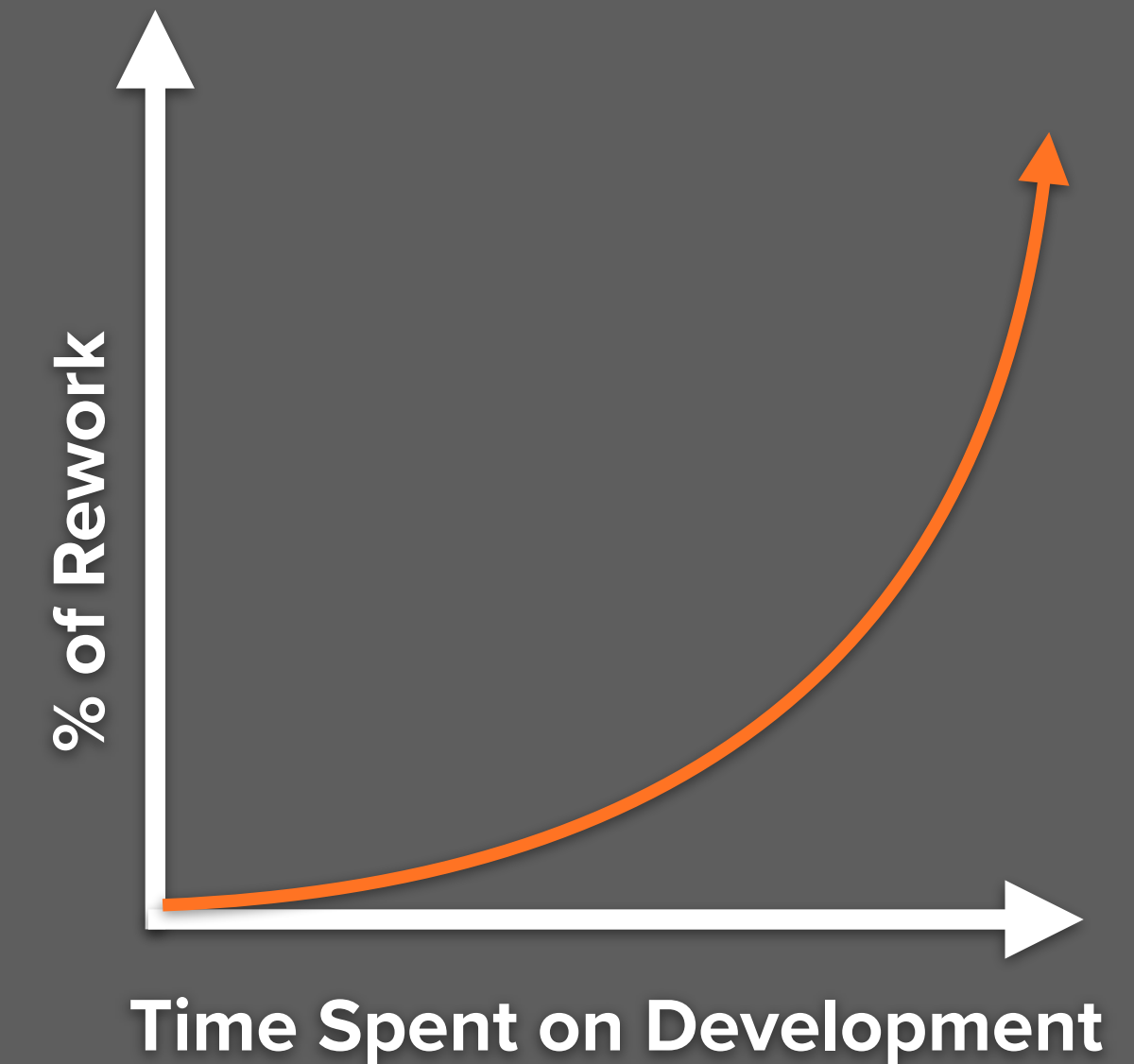
Remediation

SIGNALS TO LOOK OUT FOR

#FIXME: This only works for ...

//TODO: Implement error handler

#HACK: This is not going to scale



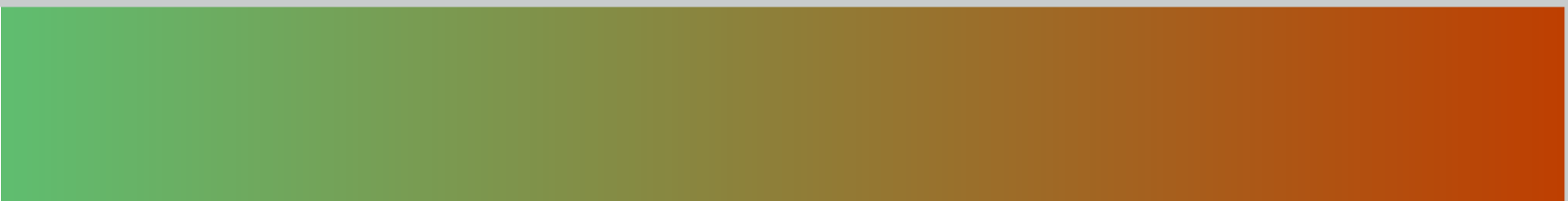
CATEGORIZATION TOOLS

Feature / Area	Dev Rating	QA / CS Rating	Stakeholder Rating	Score
Notifications	4	2	3	
Build Infrastructure	2	1	2	
Billing	3	3	4	

☉ Simple Average

☉ Weighted Average

PRIORITIZATION GUIDELINES

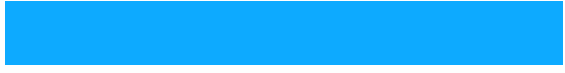
		
Impact	Low	High
Cost of Delay	Minimal	Significant
Effort	Minimal	Significant

◎ Additional weight should be given to the “*Cost of Delay*”

REMEDIATION



80%
/
20%



PUTTING IT ALL TOGETHER

THANK YOU!

André D. Henry
Dir. Platform Engineering, Fleetio
October 17th, 2025

REFERENCES

1. https://en.wikipedia.org/wiki/Technical_debt
2. http://en.wikipedia.org/wiki/Ward_Cunningham
3. <https://vincentdnl.com/drawing/technical-debt>
4. <https://www.thoughtworks.com/insights/articles/overcome-tech-debt-keep-your-business-moving>
5. <https://vfunction.com/blog/technical-debt-whos-responsible/>
6. <https://www.stxnext.com/cto-survey>
7. <https://www.tonic.ai/guides/test-data-tech-debt-business-value>
8. <https://bsky.app/profile/frooxius.bsky.social/post/3lyfq6txf5k22>
9. <https://bsky.app/profile/nickscip.bsky.social/post/3lye5jwsx422g>
10. <https://www.flaticon.com/authors/surang>
11. <https://www.flaticon.com/authors/uniconlabs>
12. <https://www.flaticon.com/authors/vectorsmarket15>
13. <https://www.flaticon.com/authors/lalawidi>