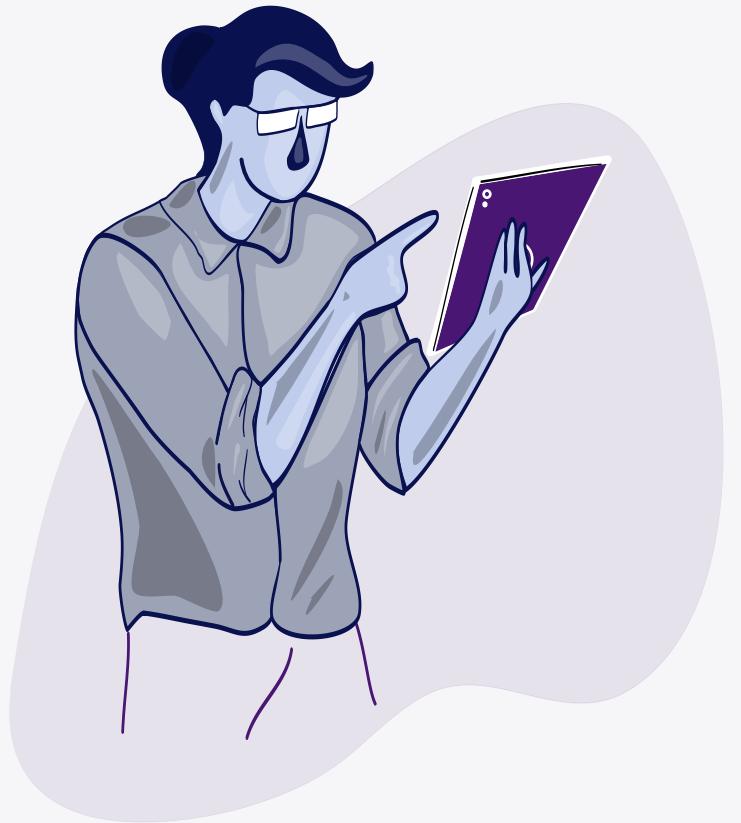




Alexandre Omeyer  
Co-founder & CEO  
Stepsize



# **How to deal with tech debt:**

## Lessons learned from the best product / engineering teams

Conf42



# LESSONS FROM 300+ INTERVIEWS



pipedrive™



Bloomberg



carwow



by amazon pharmacy



snyk



CloudBees.

SAP Concur



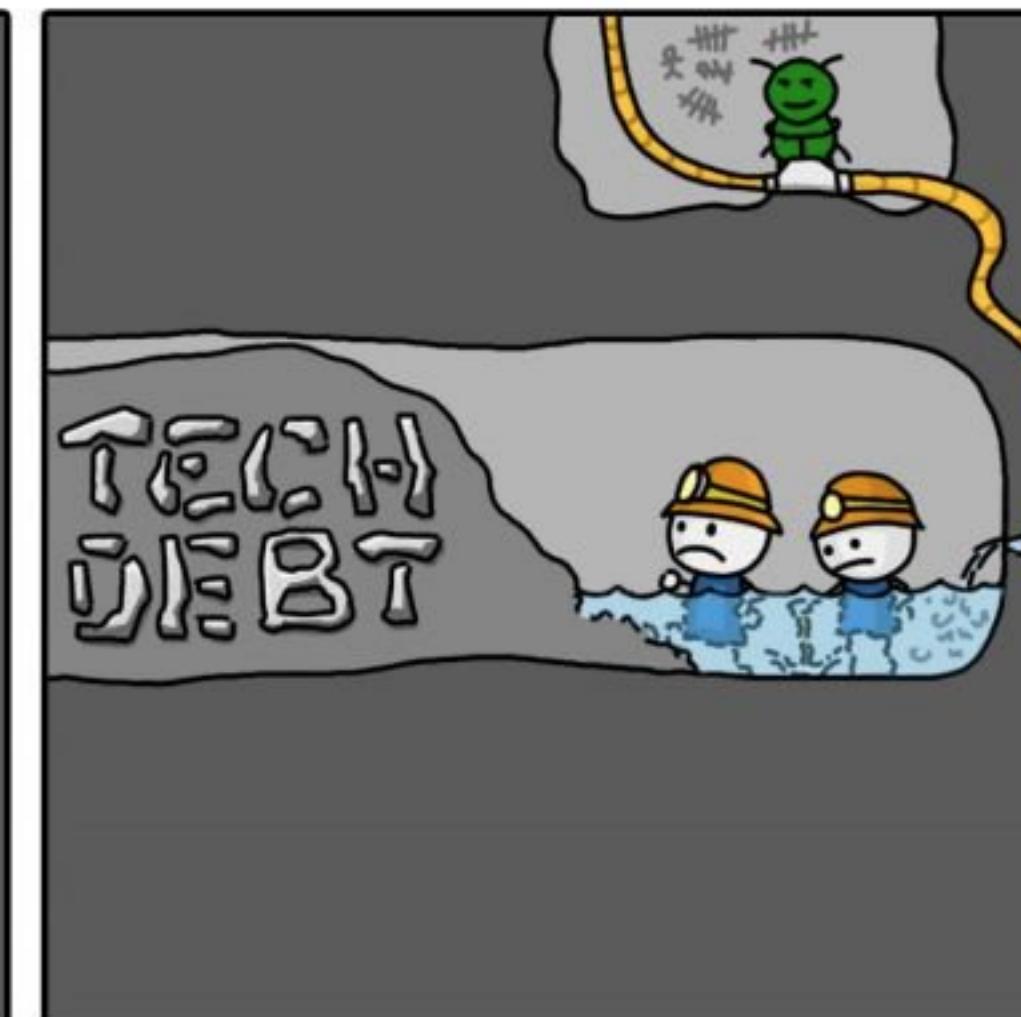
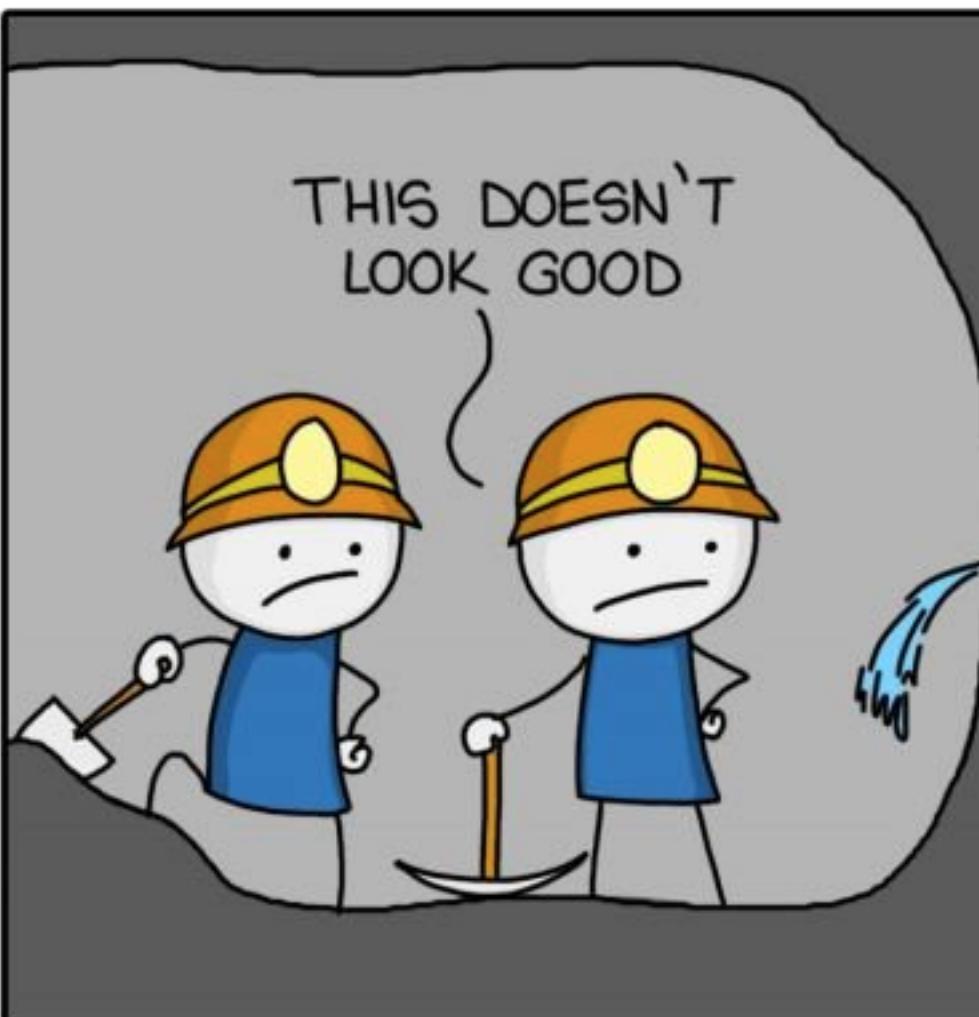
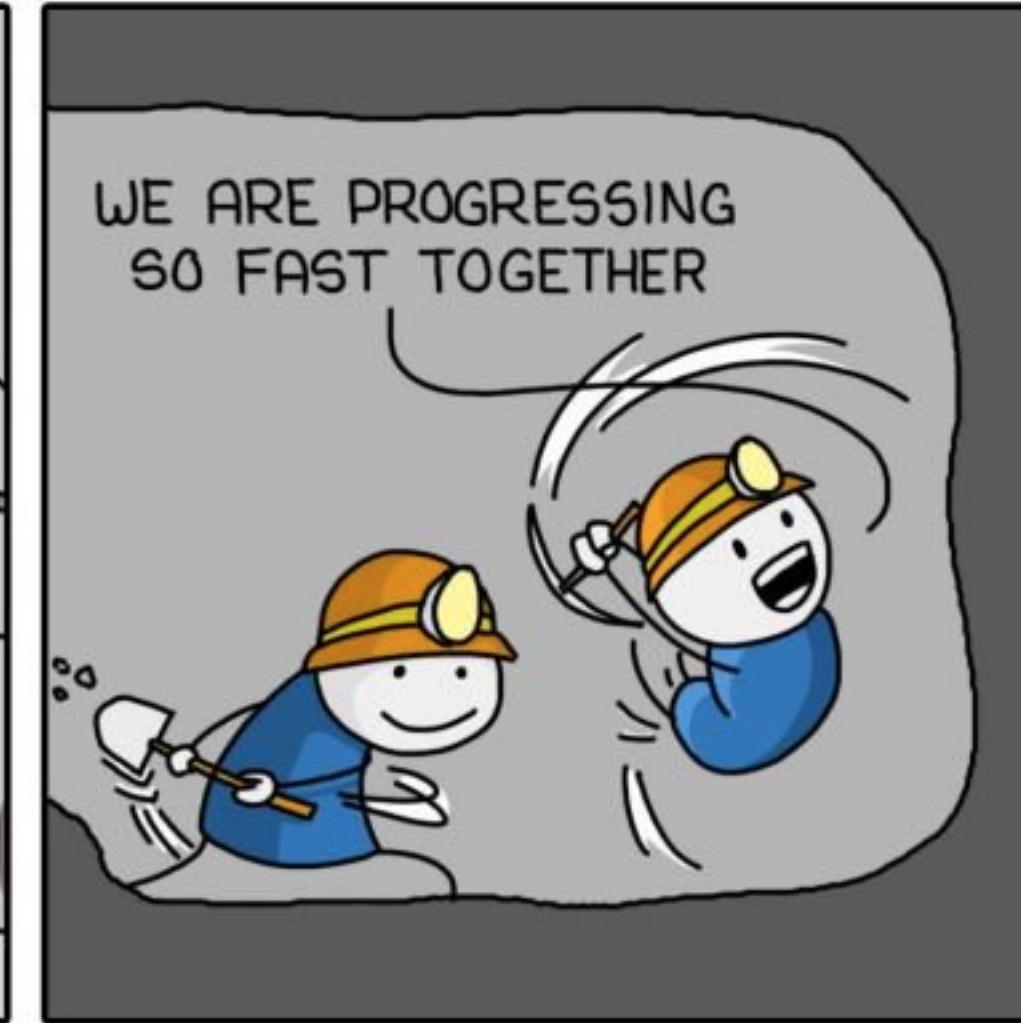
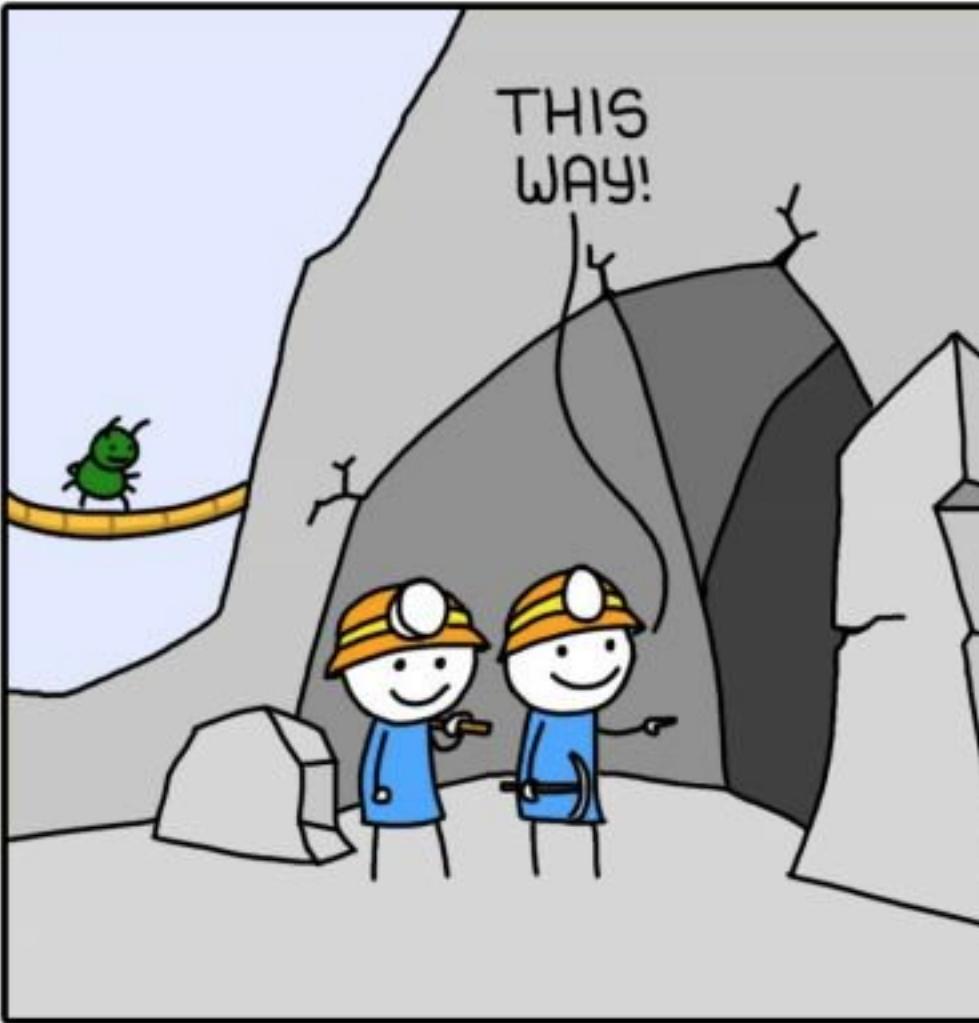


# WHAT IS TECH DEBT?

‘Tech debt is code you’ve decided is a liability’

—Me

# TECH DEBT





# WHY IS TECH DEBT A THING?

‘Software exists in a world of uncertainty.’

—Martin Fowler

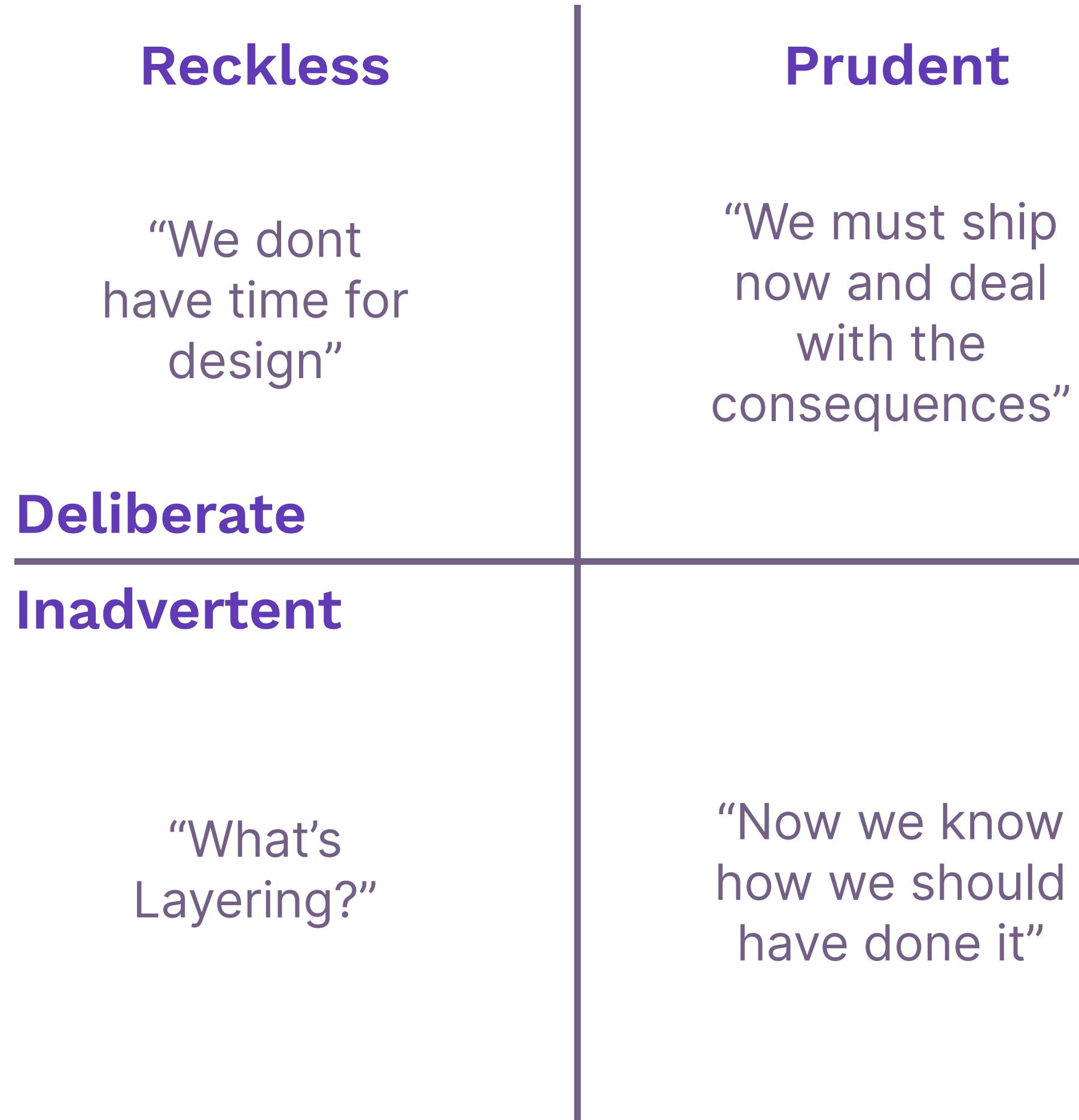


# WHY IS TECH DEBT A THING?

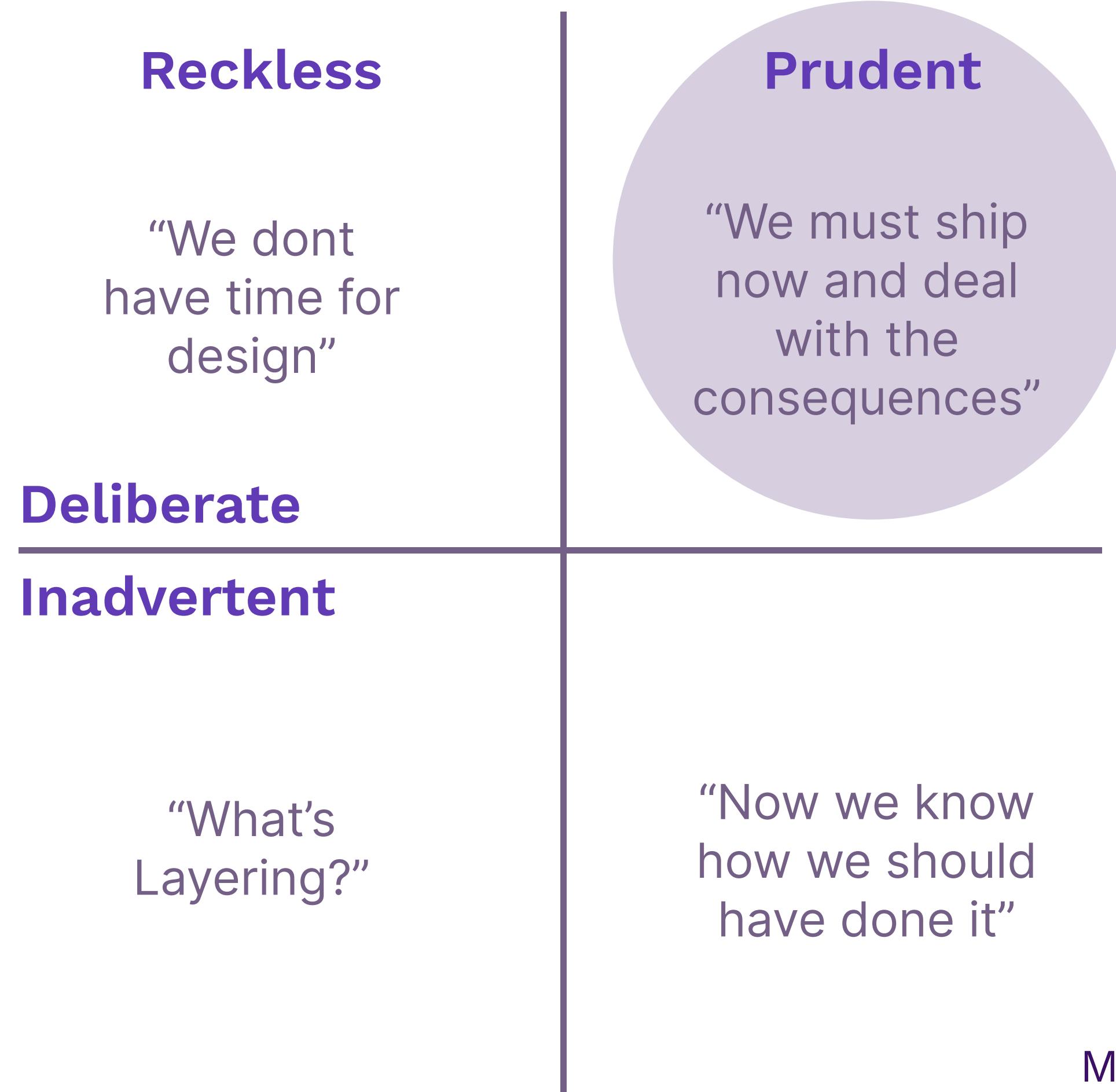
‘[...] it can take a year of programming on a project before you understand what the best design approach should have been.’

—Martin Fowler

# Tech Debt Quadrant



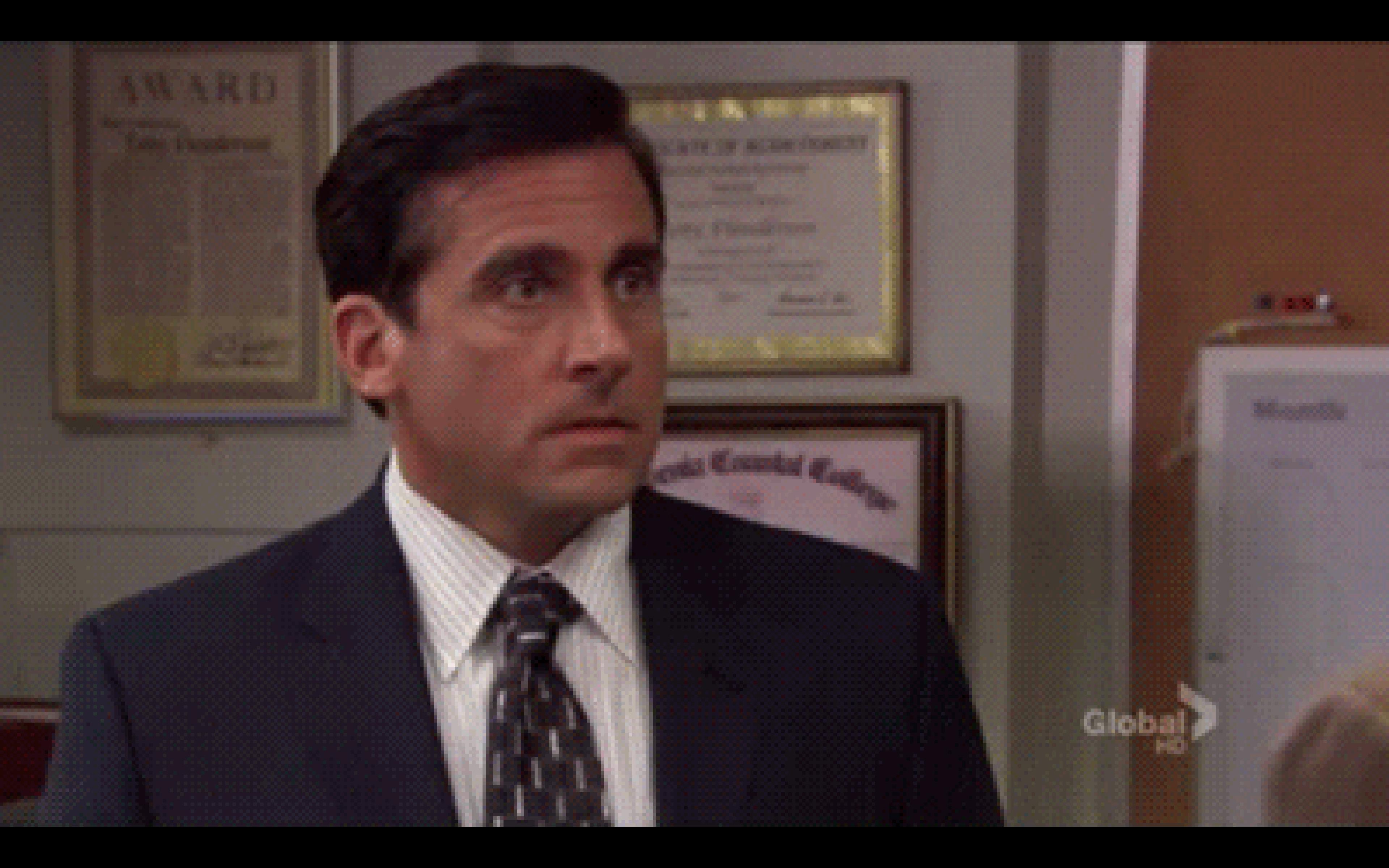
# Tech Debt Quadrant





# MYTHS TO DEBUNK

Tech debt is bad and no one  
should ever take any on.



Global →



# MYTHS TO DEBUNK

Tech debt is bad and no one  
should ever take any on.



# MYTHS TO DEBUNK

Tech debt is only engineering's problem.



HOW ABOUT



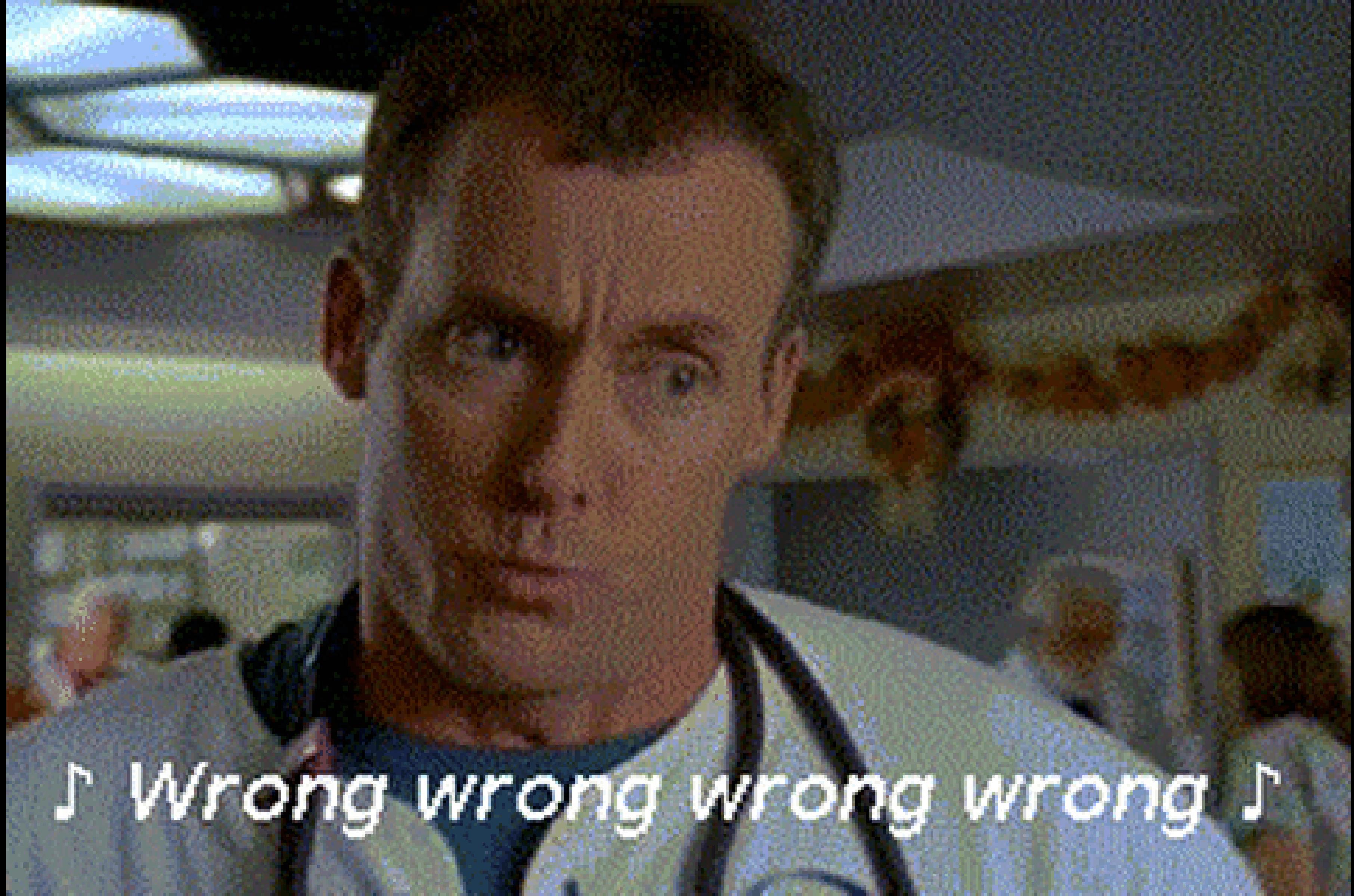
# MYTHS TO DEBUNK

Tech debt is only engineering's problem.



# MYTHS TO DEBUNK

Managing tech debt properly  
will slow us down.



♪ Wrong wrong wrong wrong ♪



## MYTHS TO DEBUNK

Managing tech debt properly  
will slow us down.



# WHY BOTHER?

‘Leaders that actively manage and reduce technical debt will achieve at least 50% faster service delivery times to the business.’

**Gartner**<sup>®</sup>



# WHY BOTHER?

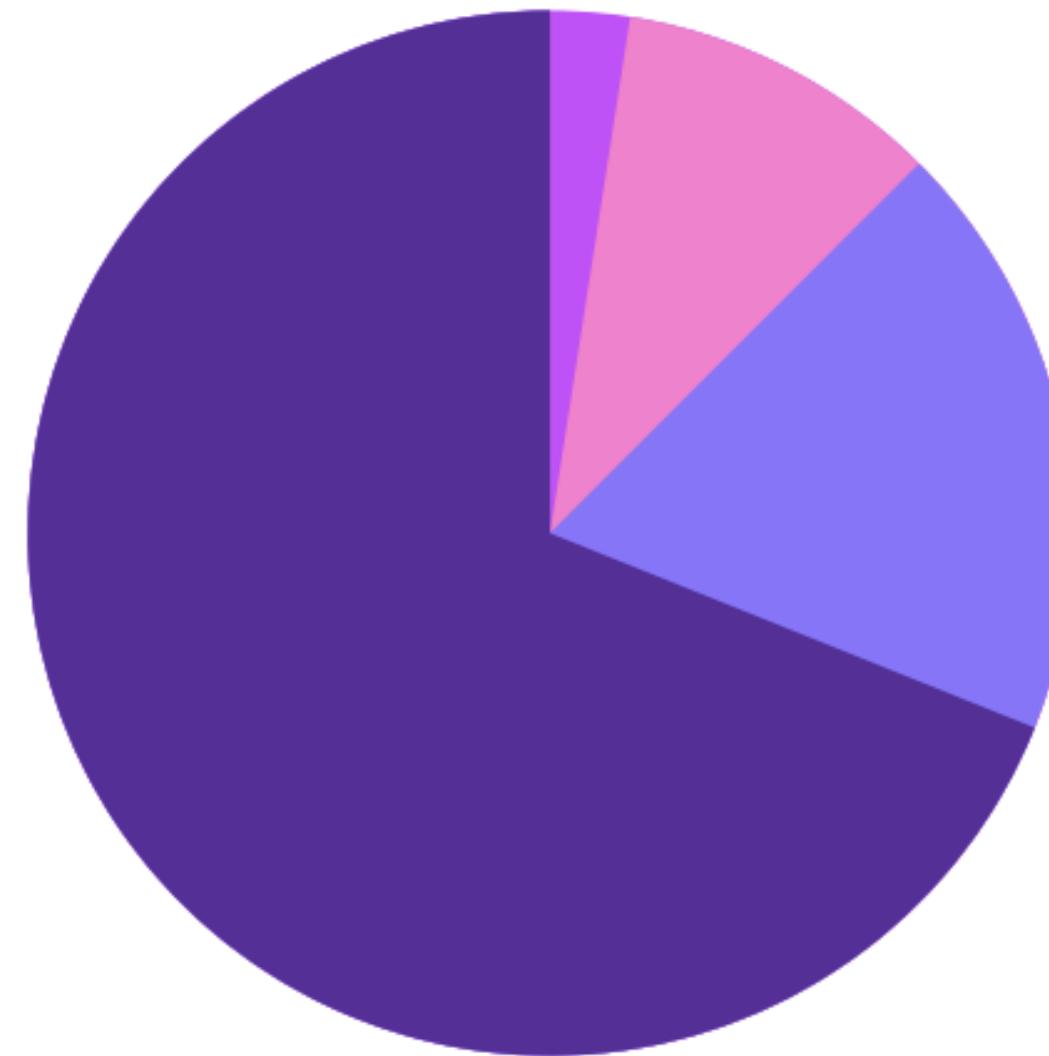
Engineers spend 42% of their time fixing the past rather than building the future.

**stripe**

# WHY BOTHER?



How much faster would you ship if the company had tech debt under control?



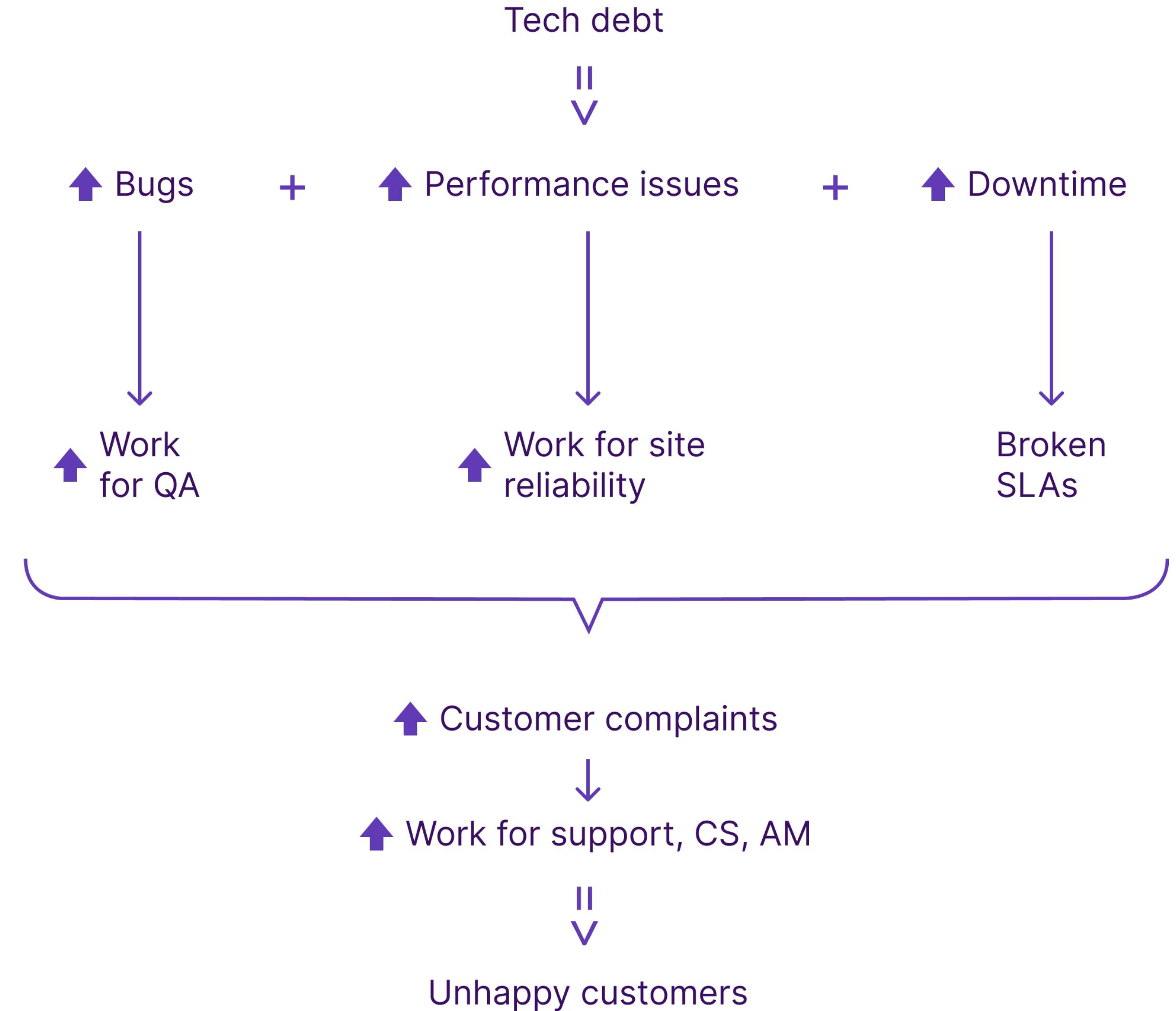
- Up to 100%
- Up to 200%
- More than 200%
- It would not make any difference

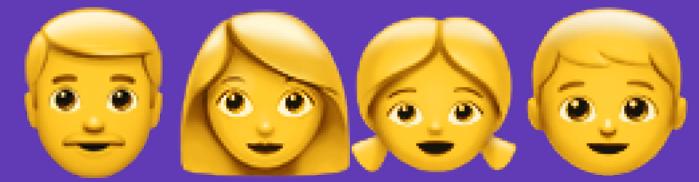
# WHY DOES IT MATTER?



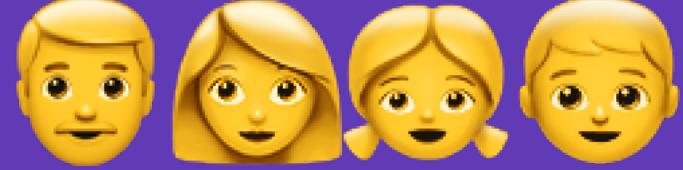
Poor quality code slows everyone down within weeks.

# TECH DEBT IMPACTS EVERYONE





# CULTURE & TECH DEBT

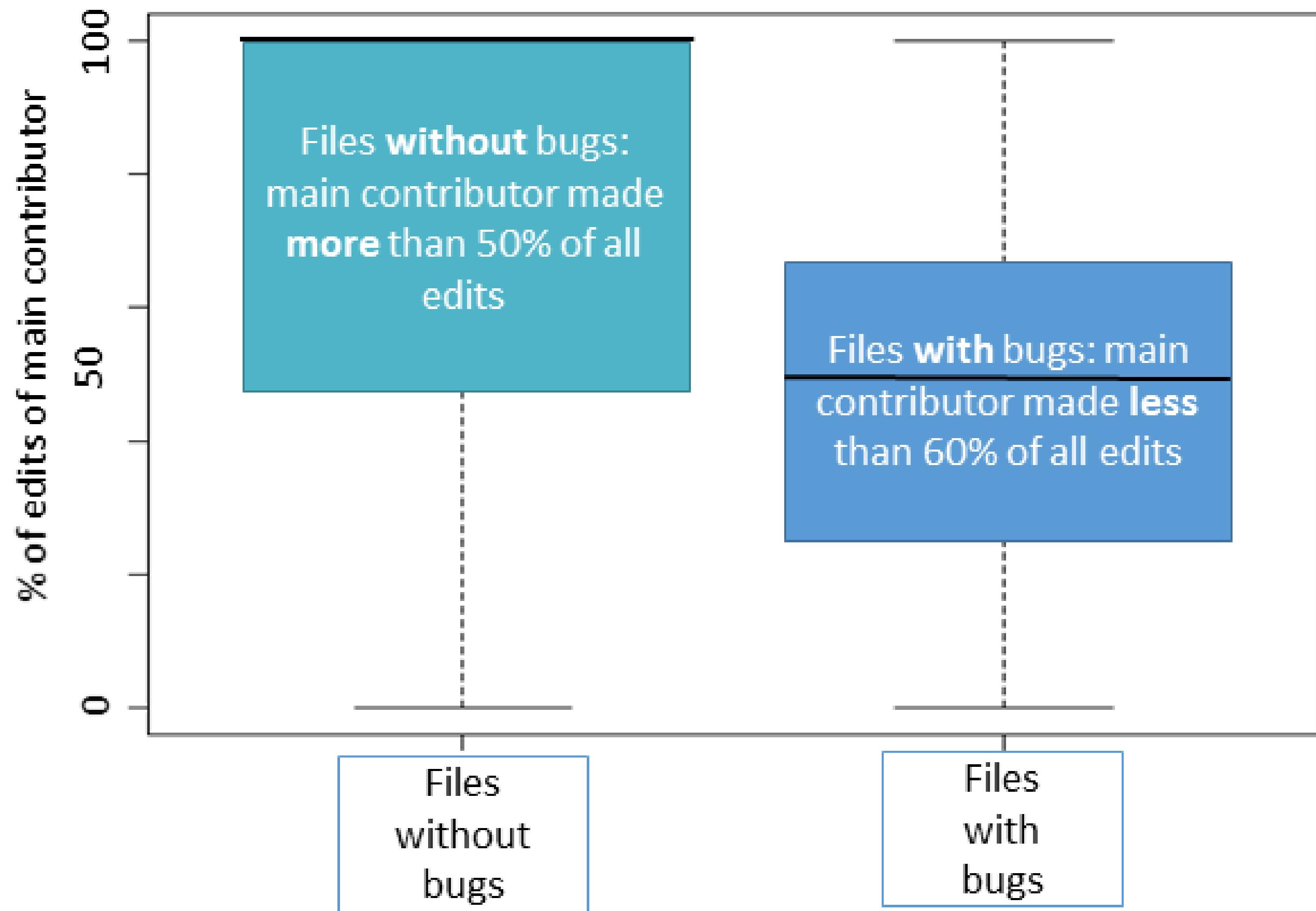


# CULTURE & TECH DEBT

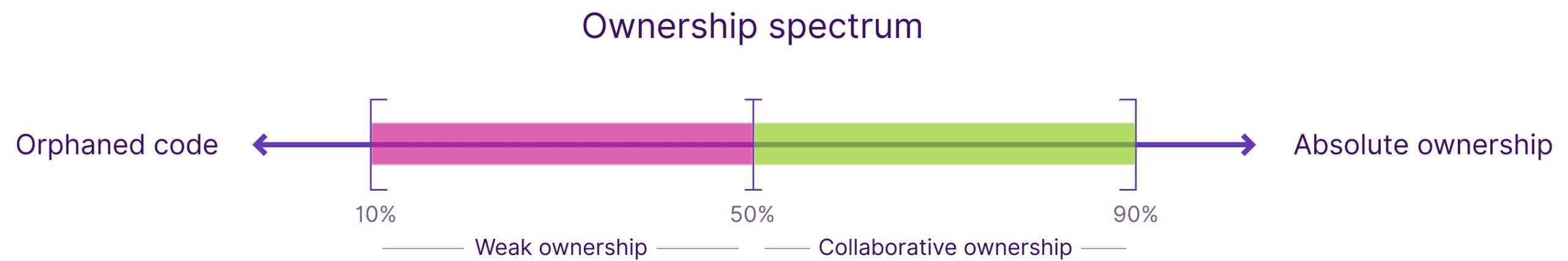
Ownership is a leading indicator  
of engineering health.

—Gareth Visagie, Chief Architect at Snyk

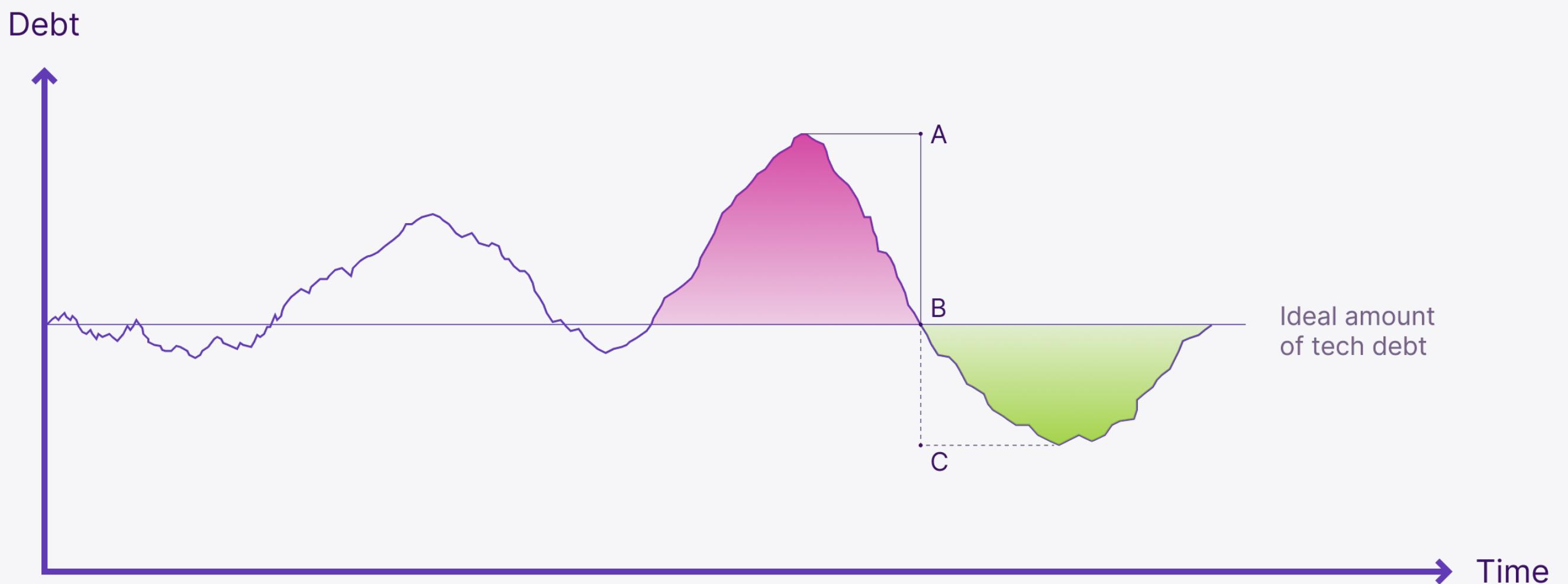
# CULTURE & TECH DEBT



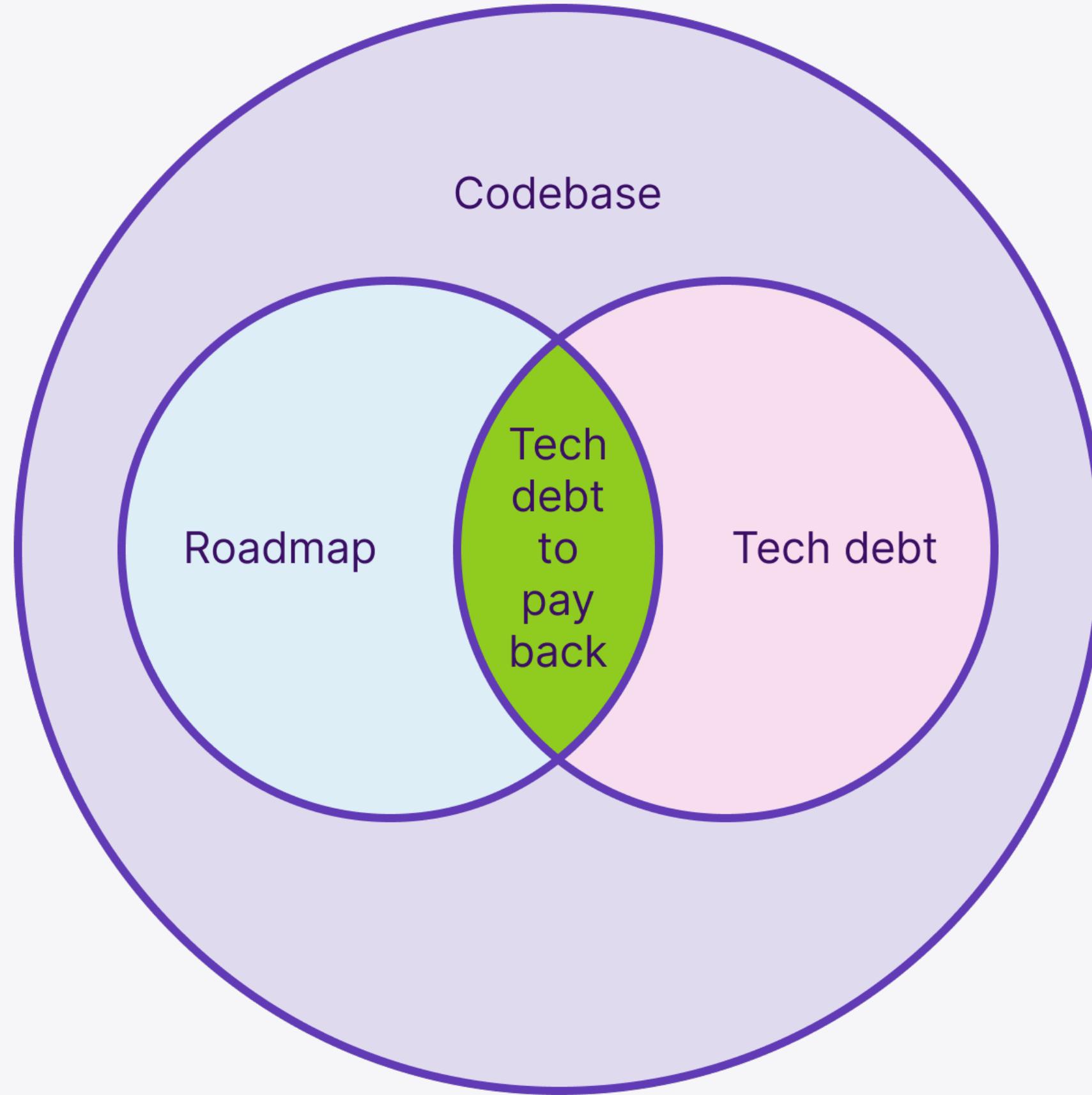
# CULTURE & TECH DEBT

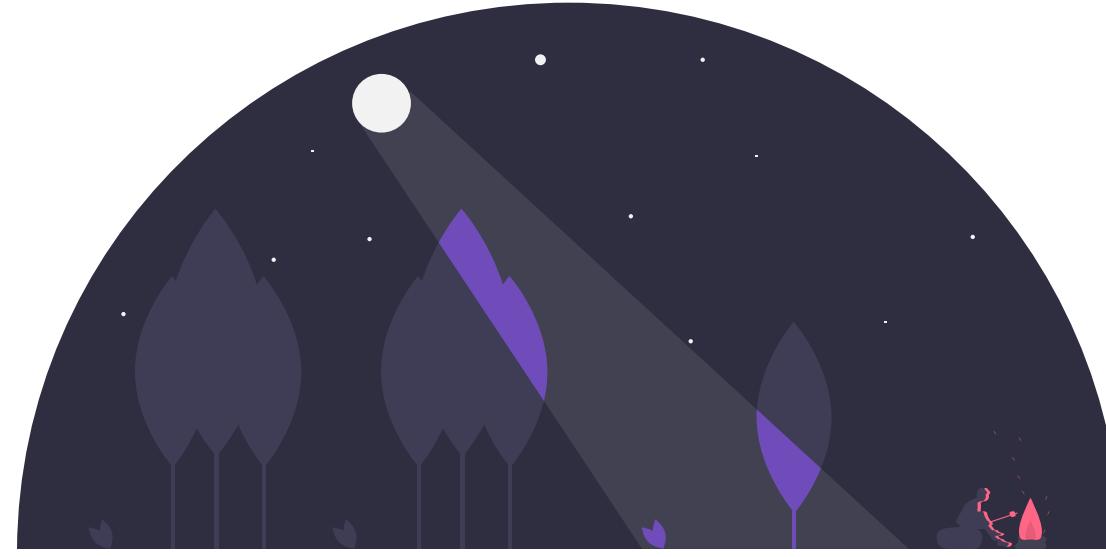


# TECH DEBT BUDGETS

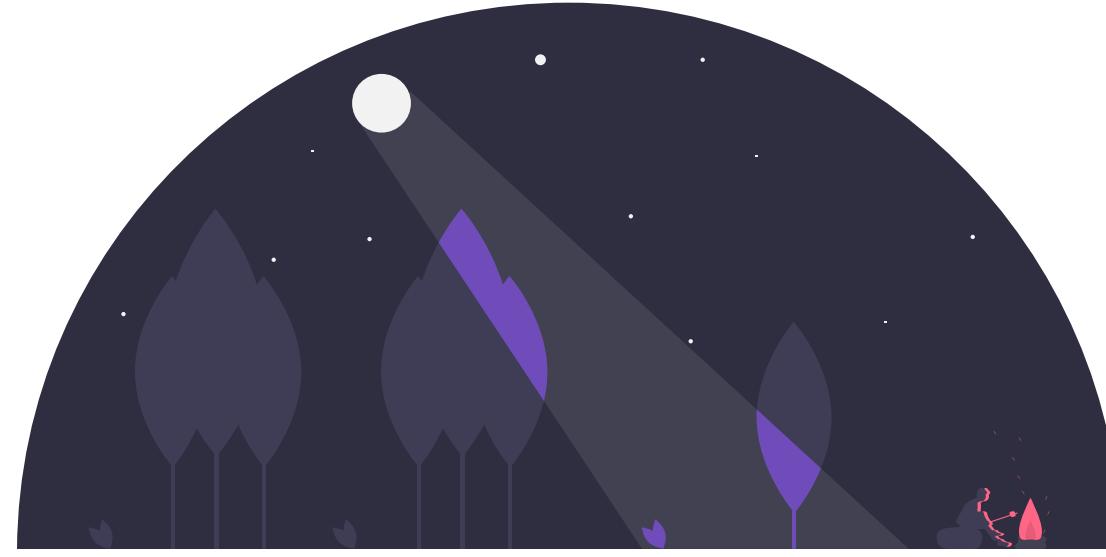


# TECH DEBT WORTH PAYING BACK





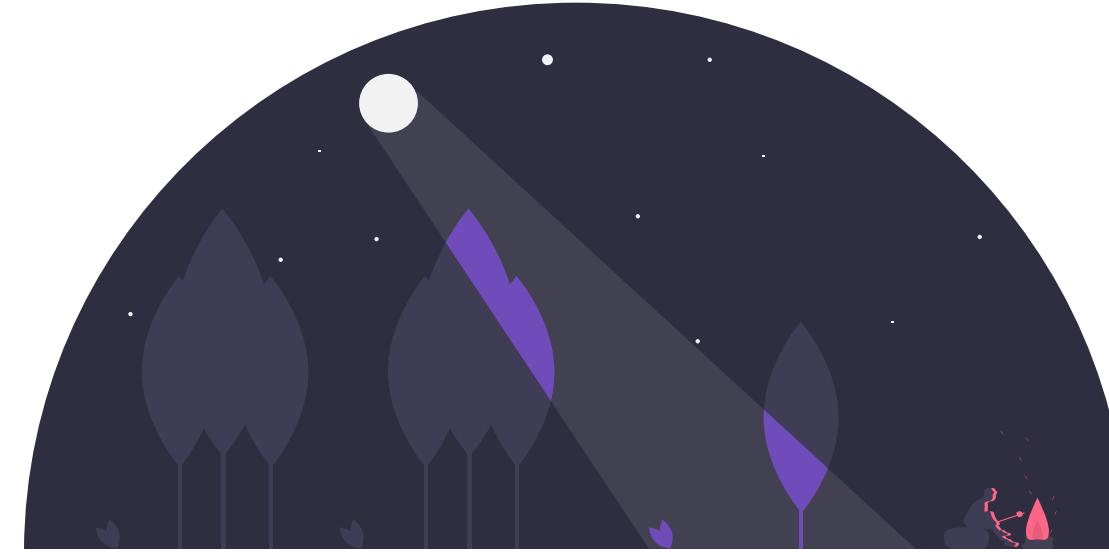
**Is the debt small,  
medium, or large?**



# **Small debt: follow the boycout rule**

Always leave the code better than you found it.

—Robert C. Martin a.k.a Uncle Bob



# Medium debt: go through sprint planning

Consider how much time PMs spend curating the set of features to work on.

Do the same for tech debt.

—James Rosen, Engineering Manager at Everlane



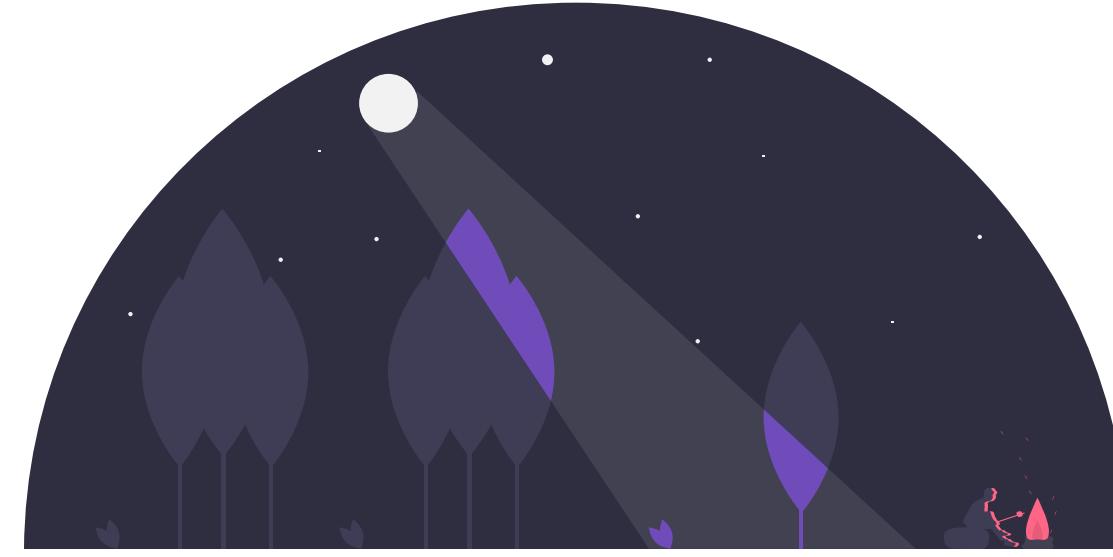
# HOW?

Track your tech debt.

# HOW?



Find and scope the debt in the way of your sprint.



# Large debt: have a quarterly meeting

Include all Engineering and Product leaders.

Engineering Managers present the business case for large pieces of debt.

Tech debt to be addressed is then added to the roadmap.



## MAKING THE BIZ CASE

Which business priorities will be put at risk because of this debt?

Will the debt get worse if unaddressed?  
How quickly and how much worse?

What has this debt cost the business so far?



## TAKEAWAYS

Tech debt is inevitable and can be used to gain leverage.

Manage tech debt carefully or it will manage you.

Create an engineering culture of ownership.

Include tech debt in your Agile processes.

# SOLUTION



‘We used to have one tech debt sprint a year. Now with Stepsize, we deal with tech debt continuously.’



# Editor-first issue tracker for a healthy codebase

Create & view code issues in your editor

Track & prioritise code improvements

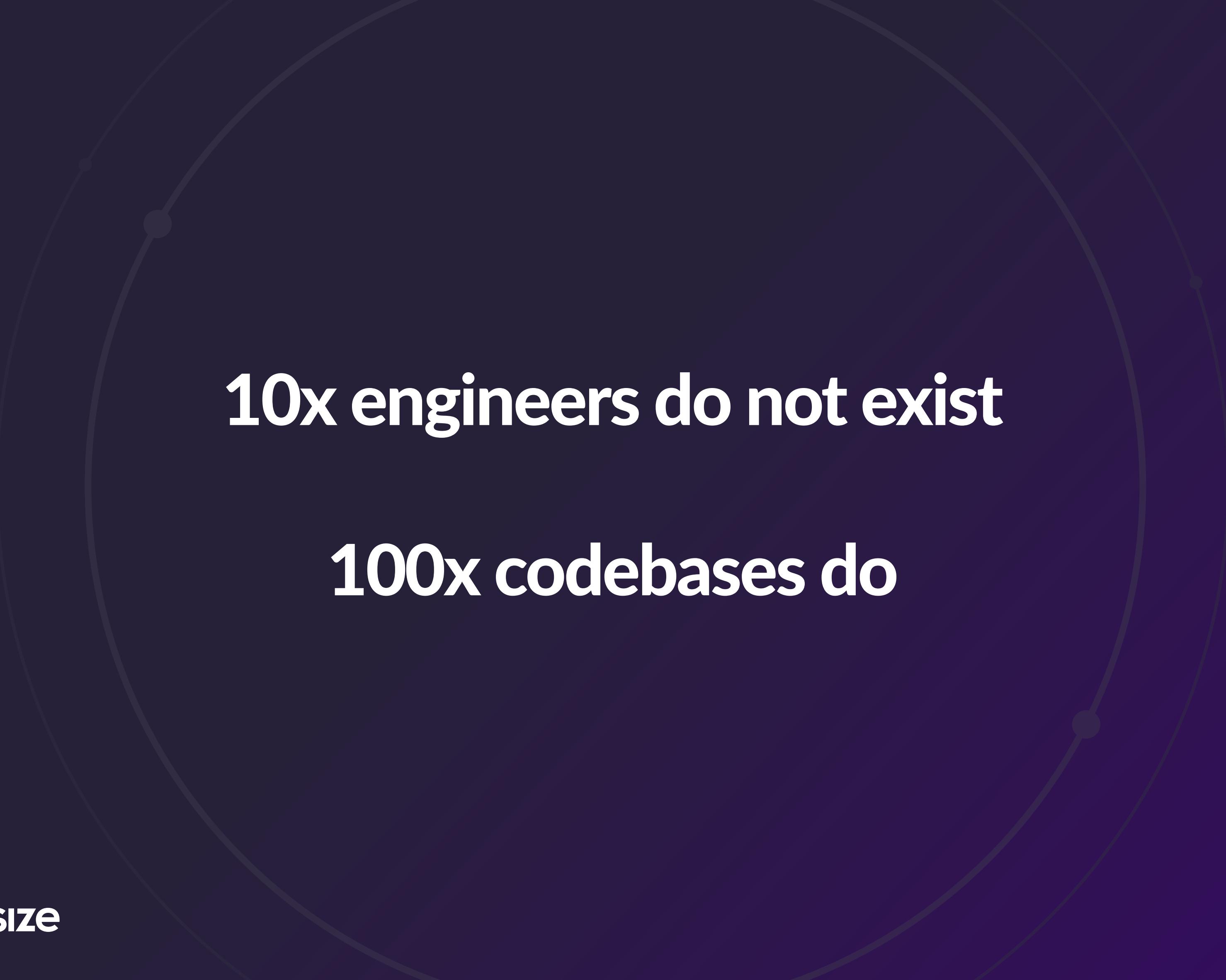
Add key issues to your sprint with our Jira integration

**Sign up on [stepsize.com](#)**

A screenshot of the StepSize extension interface integrated into a code editor. The interface includes a sidebar with icons for 'STEPSIZE', 'BOOKMARKED CODE', and 'REPORT TECH DEBT'. The main area shows a 'REPORT TECH DEBT' form with sections for 'Describe debt in the codebase' (with 'New issue' and 'Existing issue' buttons), 'Report debt's impact' (with 'Time lost' and 'Bug' buttons), and a note 'Not sure what to do? View the tour'. On the right side of the editor, there is a vertical stack of code snippets from various files like 'ts utils.ts', 'ts handleNewPrComment.ts', and 'ts useRiskEstimateSection.ts'.

```
ts utils.ts
ts handleNewPrComment.ts
ts useRiskEstimateSection.ts

lib > issueSidePanel > ts useRiskEstimateSection.ts > [x] estimateActions
40     currentUserEstimate: userId
41     ? getEstimateDataAndAgeForUser(filteredEstimatesWithUser)
42     : null,
43   }
44 }
45
46 export const estimateActions = (issue: ItemIdApi['Response']) =>
47   const key = `/api/item/${issue.id}`
48
49   return {
50     createEstimate: async (
51       estimateValue: number,
52       estimateType: ItemRiskEstimateType
53     ): Promise<void> => {
54       // endpoint: /api/item/[id]/risk POST
55       await fetcher<ItemRiskApi['ResponseSerialised']>(`${
56         key
57       }/risk`, {
58         estimateType,
59         estimateValue,
60       })
61
62       await mutate(key)
63     },
64
65     removeEstimate: async (estimateId: string): Promise<void> => {
66       // endpoint: /api/item/[id]/risk DELETE
67       await fetcher<ItemRiskApi['ResponseSerialised']>(`${
68         key
69       }/risk?estimateId=${estimateId}`,
70       'DELETE',
71     )
72
73     await mutate(key)
74   },
75 }
76
77 I
78
79 const getEstimateDataAndAgeForUser = (
80   estimates: RiskEstimateWithTimeAgoText[],
81   userId: string
82 ): RiskEstimateWithTimeAgoText | null => {
83   const currentUserEstimate = estimates.find(estimate =>
84     if (!currentUserEstimate) return null
85     estimate.userId === userId
86   )
87
88   if (!currentUserEstimate) return null
89
90   const estimate = currentUserEstimate
91
92   const estimateData = estimate.estimate
93
94   const estimateAge = estimate.estimateTimeAgo
95
96   const estimateWithTimeAgoText = {
97     estimate: estimateData,
98     estimateTimeAgo: estimateAge
99   }
100
101   return estimateWithTimeAgoText
102 }
```



**10x engineers do not exist**

**100x codebases do**

# Ready to watch your team reach new heights?

Sign up on [stepsize.com](https://stepsize.com)



@AlexOmeye  
@StepsizeHQ

