CONTINUOUS DELIVERY OF HTML 5 APPLICATIONS

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REWRITING THE WEB


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What's "Continous Delivery"?

Continuous What?

- Continuous integration.
- Continuous delivery.
- Continuous deployment.

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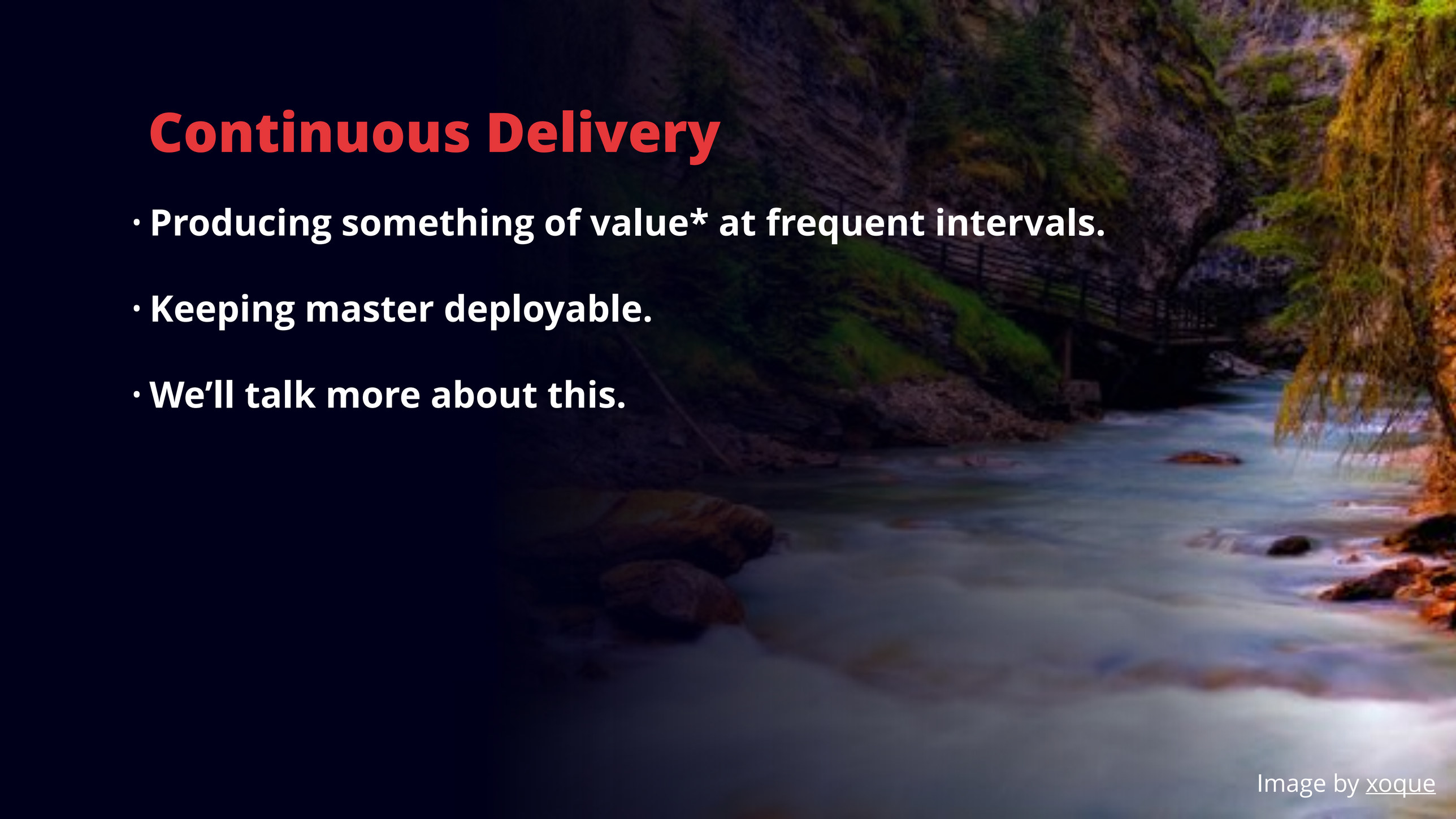
Continuous Integration

- “Build” multiple days times per day / after every merge.
- Add unit tests, linting, beautification, etc.
- Linked together with a tools such as Gulp.
- Many solutions. We like CircleCI.
- Why? To keep master “clean” and “working”.

Image by xoque

Continuous Delivery

- Producing something of value* at frequent intervals.
- Keeping master deployable.
- We'll talk more about this.



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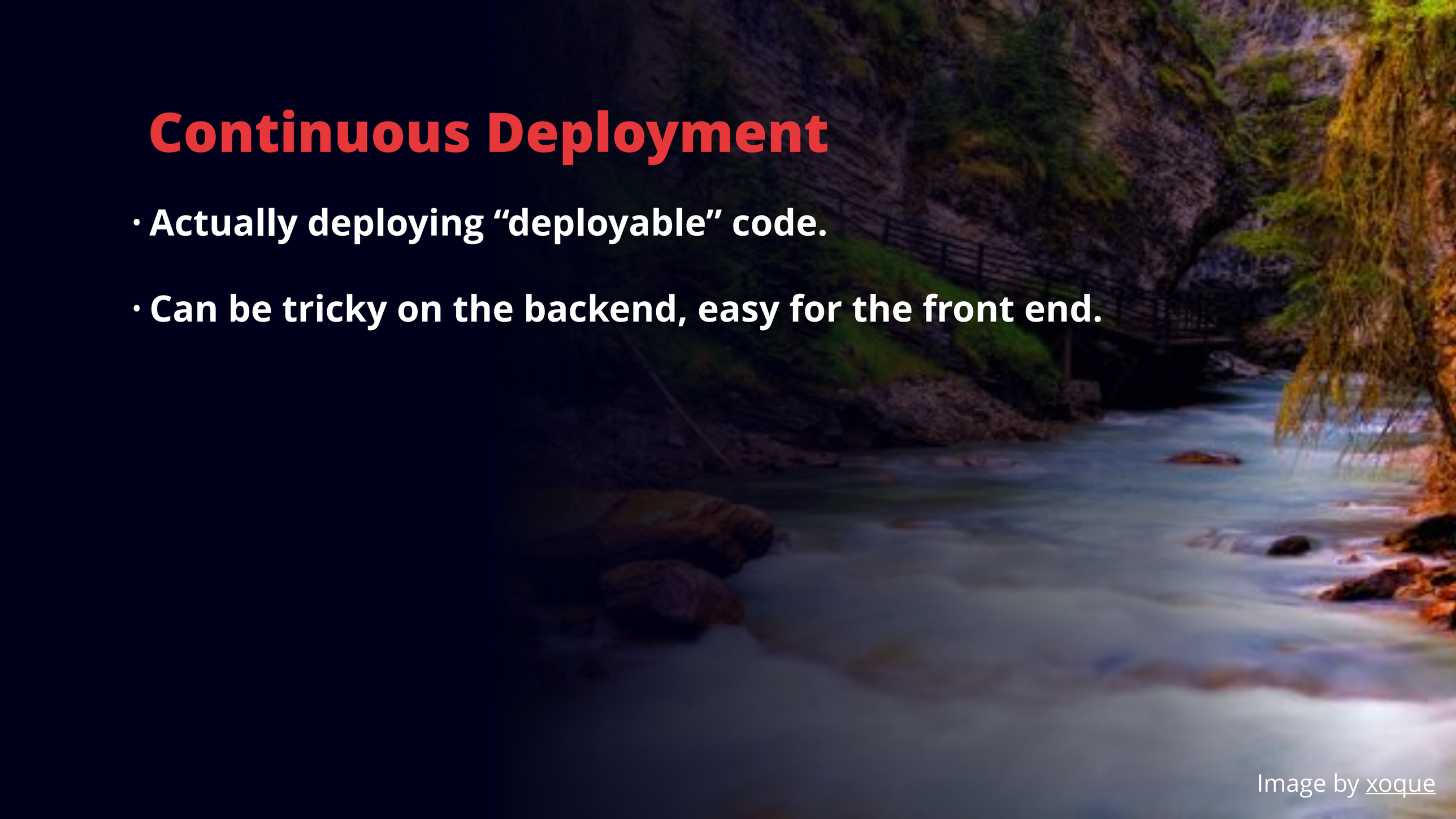
Continuous Deployment

- Actually deploying “deployable” code.
- Can be tricky on the backend, easy for the front end.



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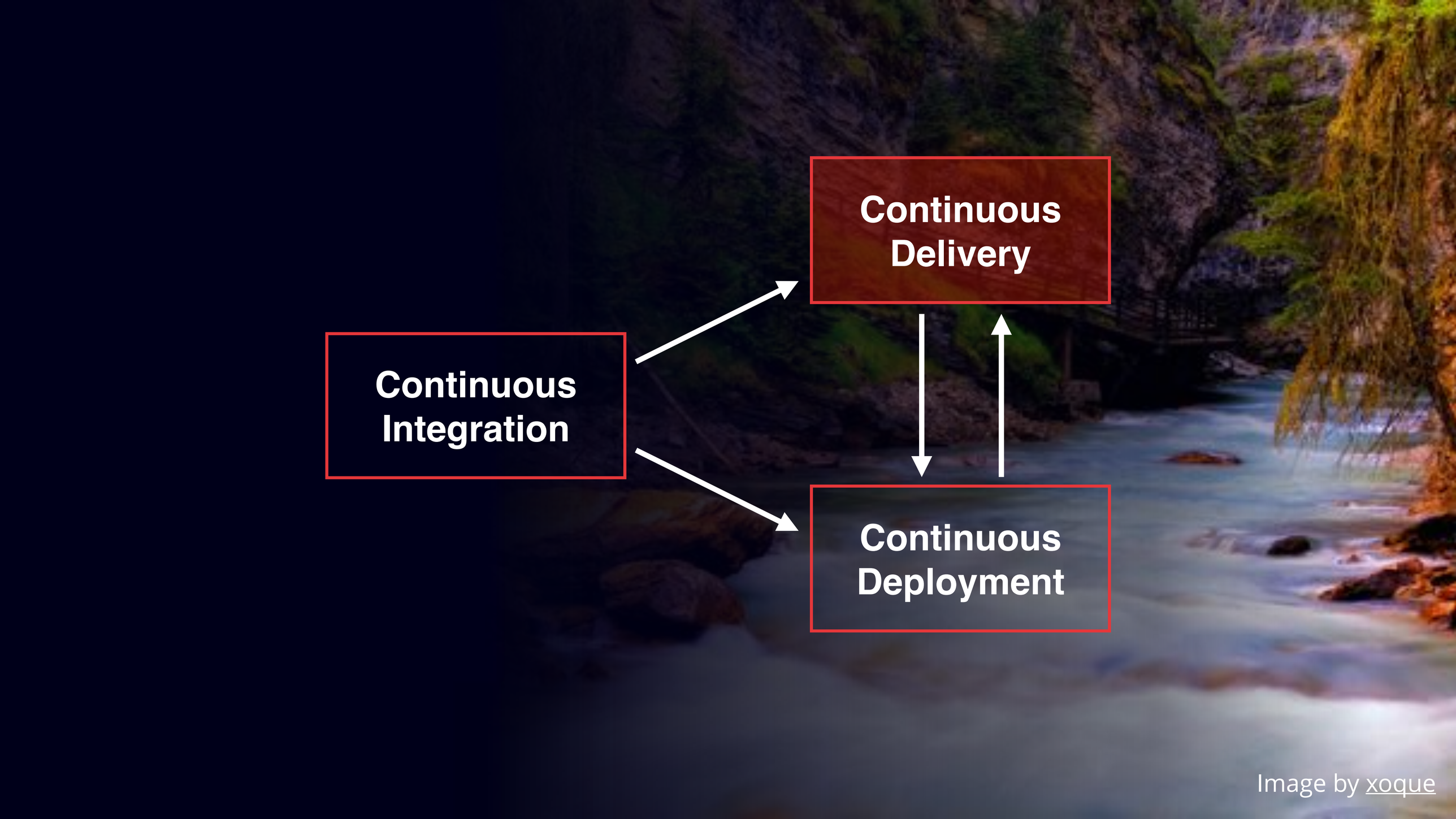

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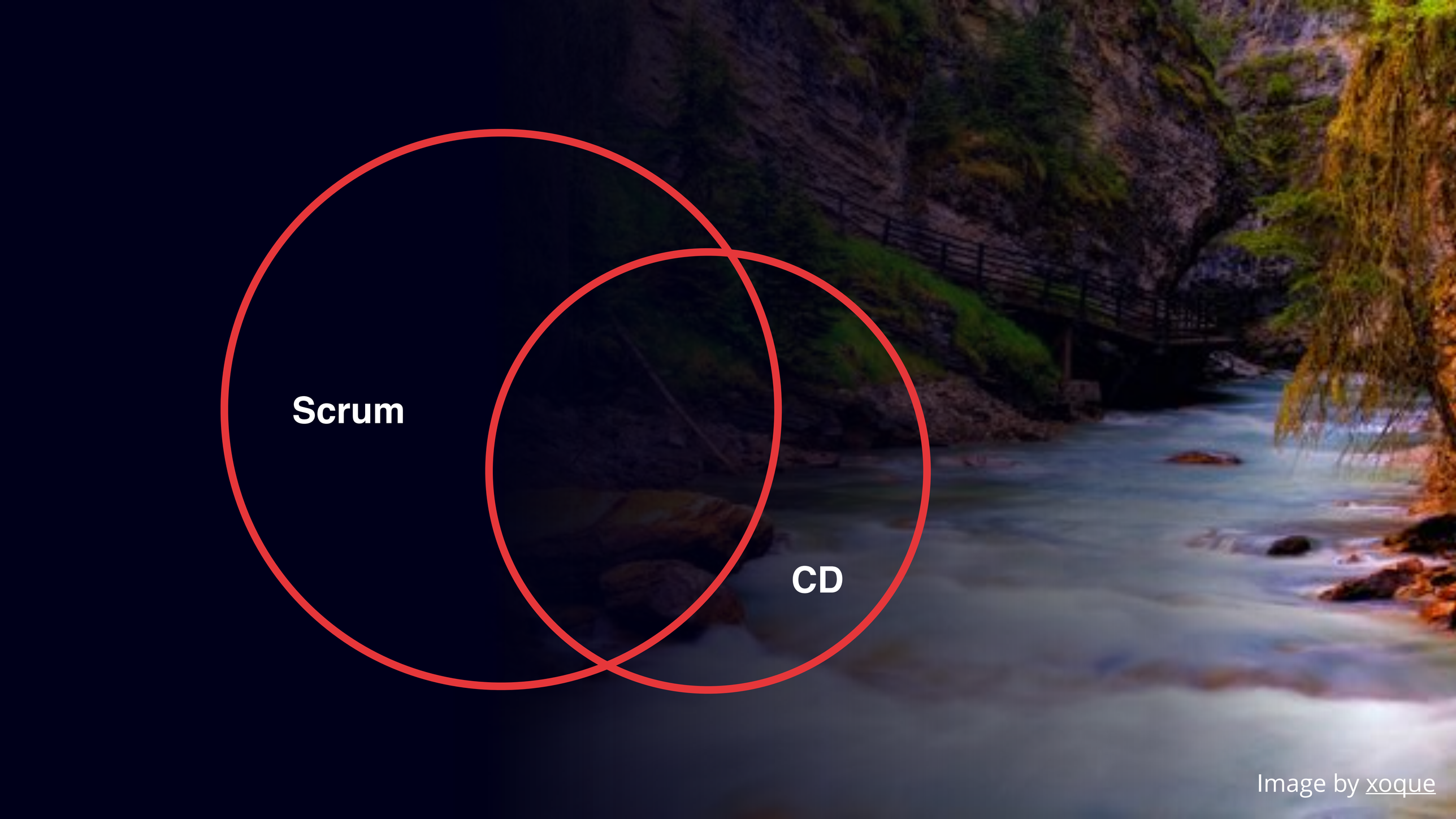

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Why Should You Do Continous Delivery?

High Level Objectives

- Build what is actually needed.
- Avoid work in progress.

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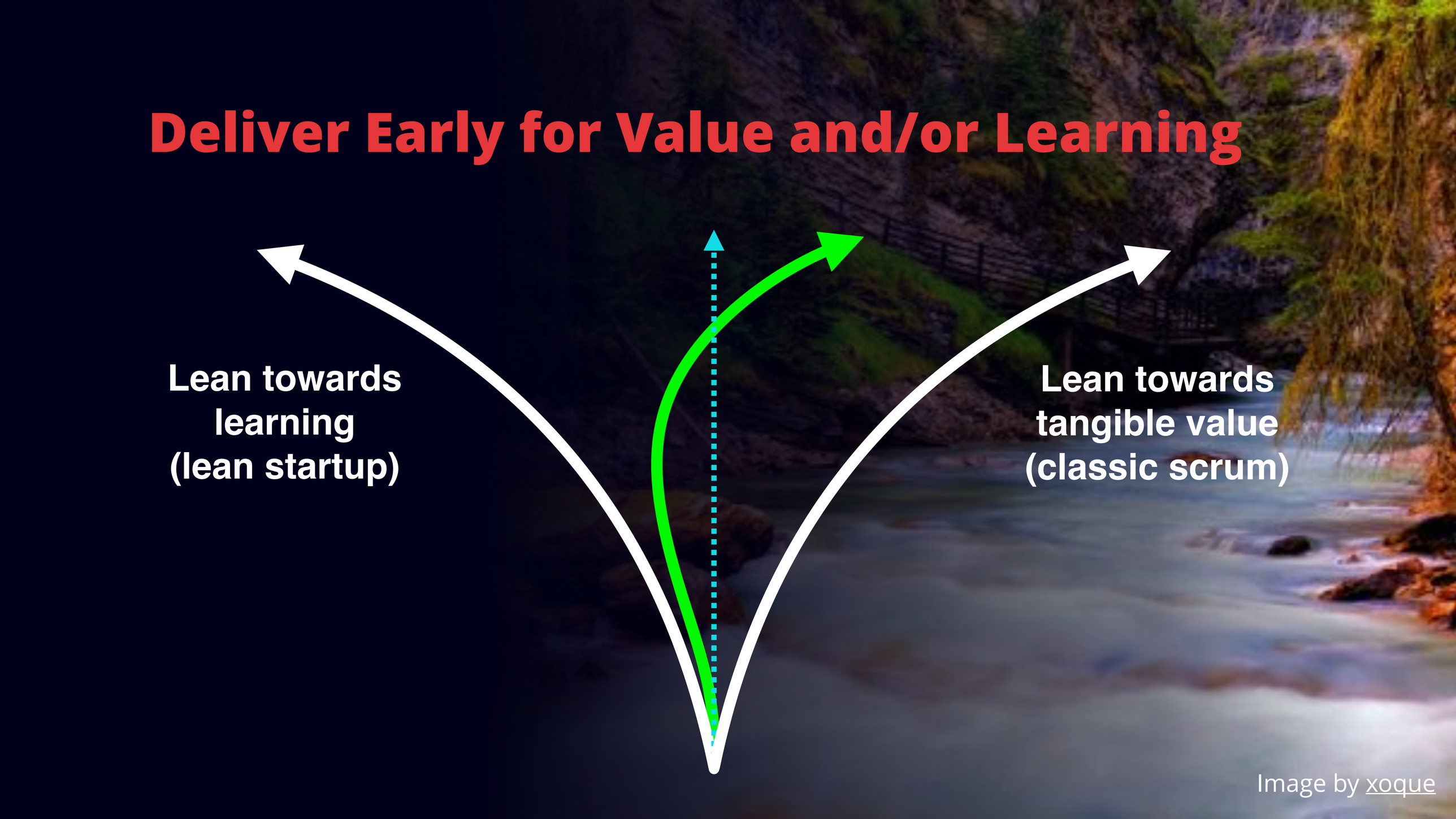
Deliver Early for Value and/or Learning



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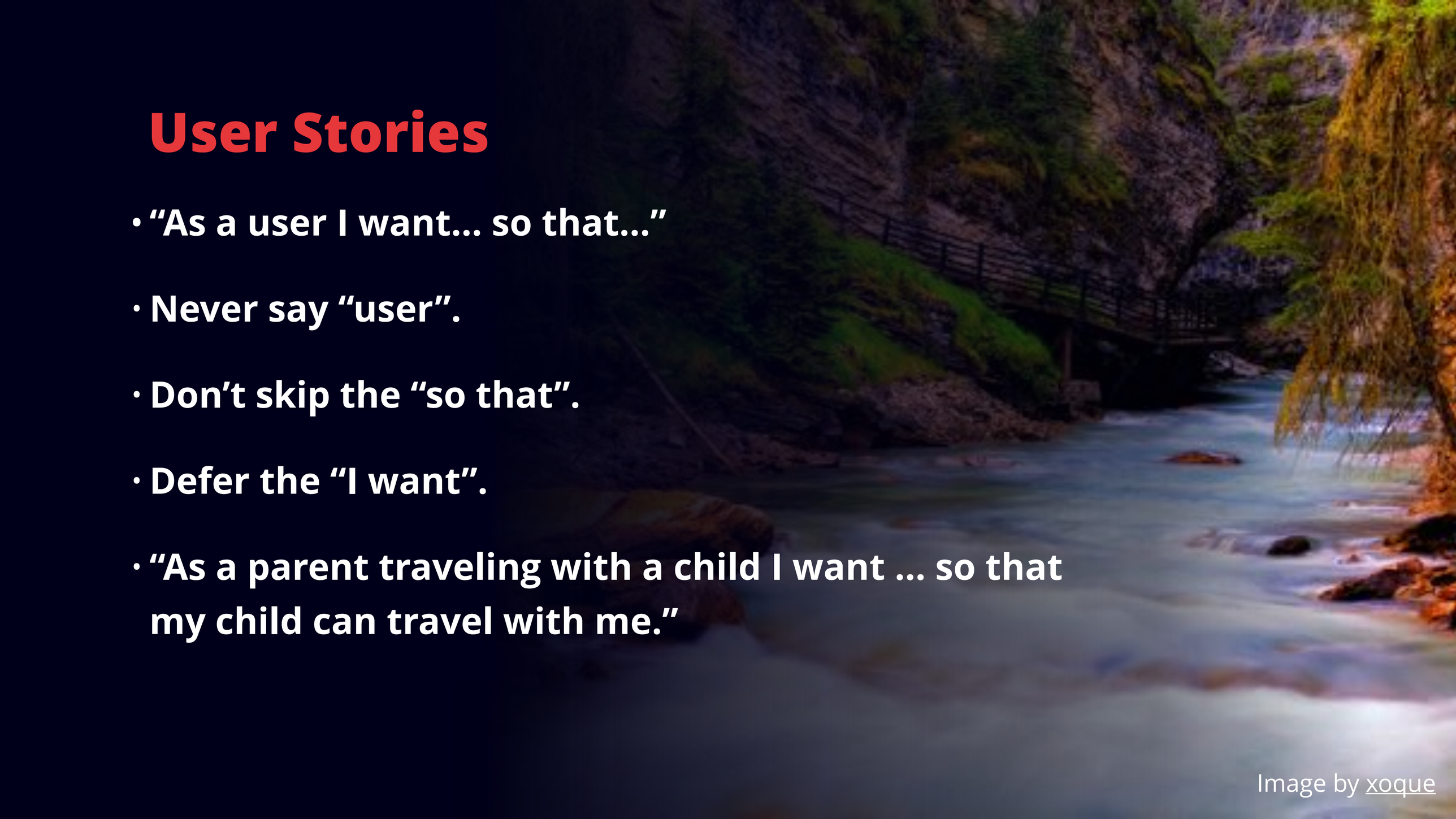
How: Good User Stories

User Stories

- “As a user I want… so that…”
- Never say “user”.
- Don’t skip the “so that”.
- Defer the “I want”.
- “As a parent traveling with a child I want … so that my child can travel with me.”



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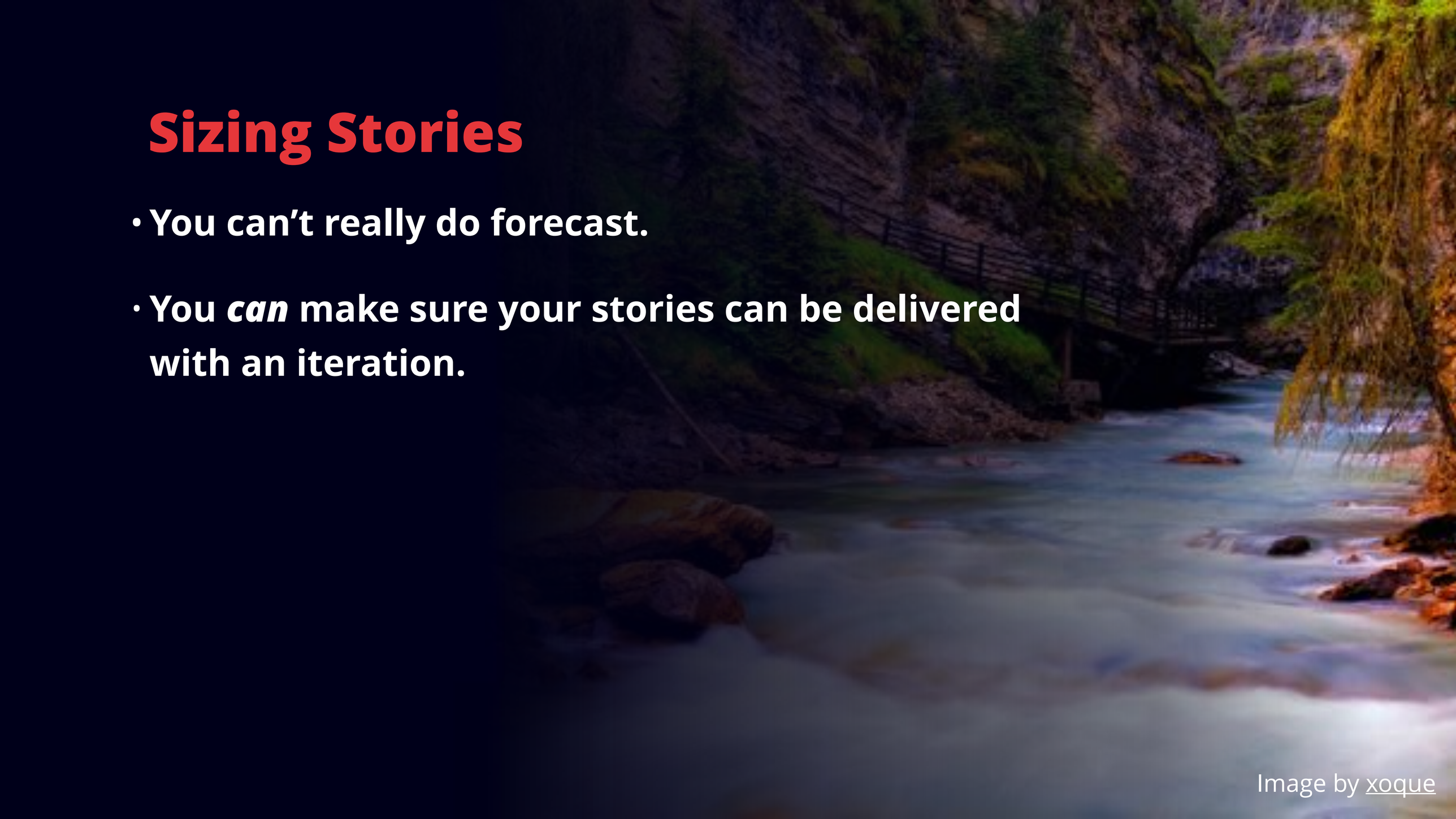
Sizing Stories

- You can’t really do forecast.
- You ***can*** make sure your stories can be delivered with an iteration.



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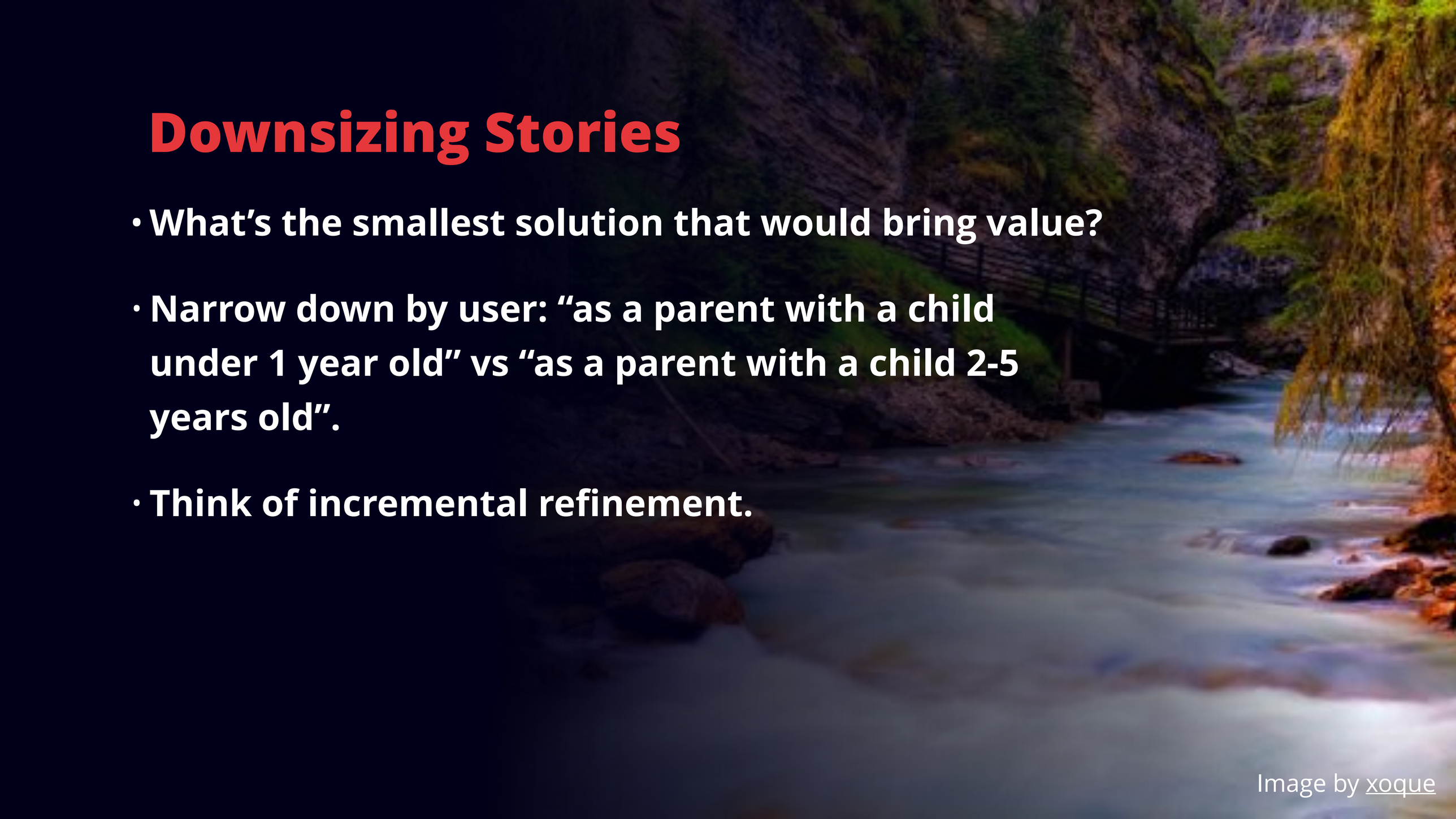
Downsizing Stories

- What's the smallest solution that would bring value?
- Narrow down by user: "as a parent with a child under 1 year old" vs "as a parent with a child 2-5 years old".
- Think of incremental refinement.



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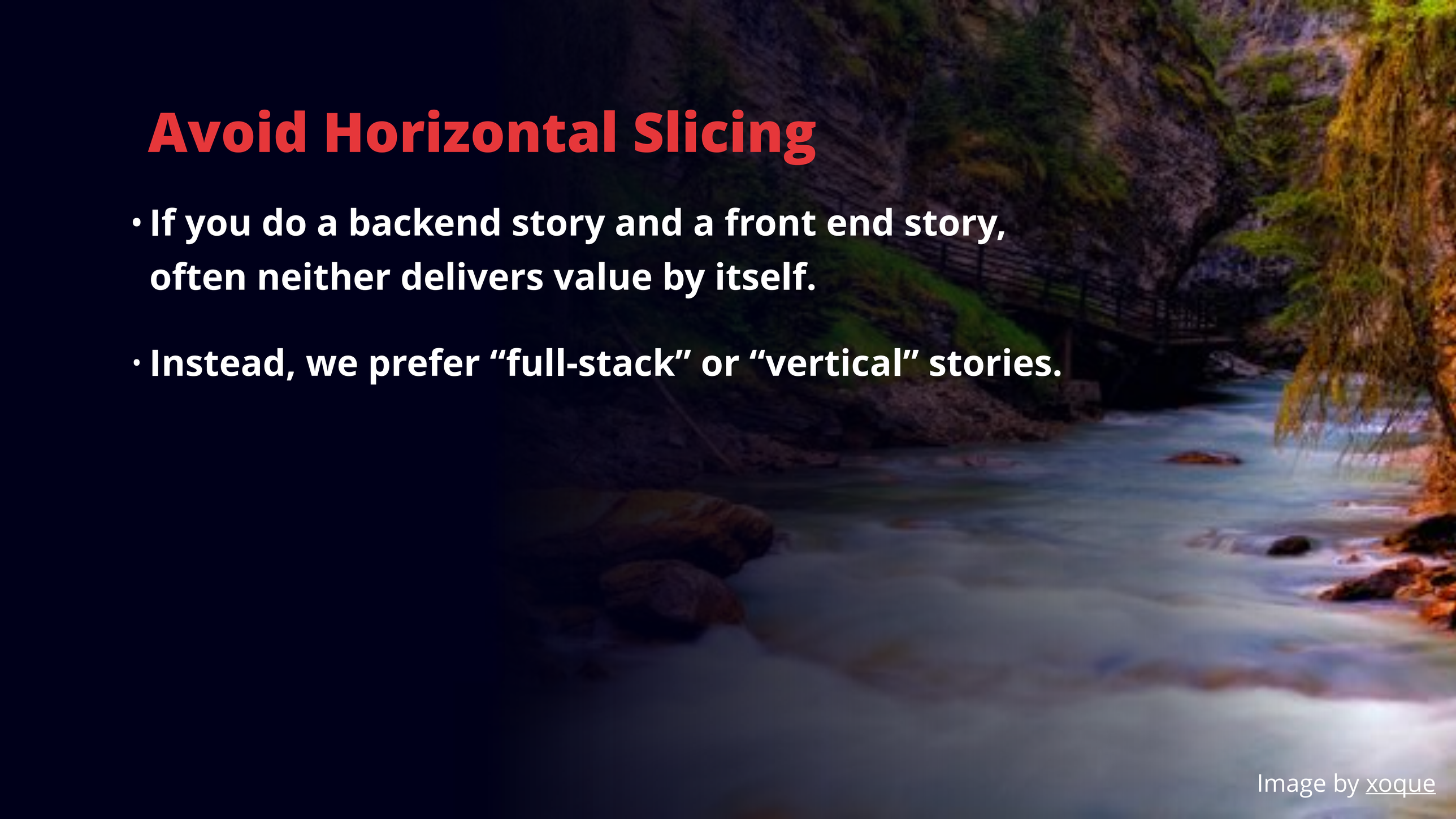
Avoid Horizontal Slicing

- If you do a backend story and a front end story, often neither delivers value by itself.
- Instead, we prefer “full-stack” or “vertical” stories.



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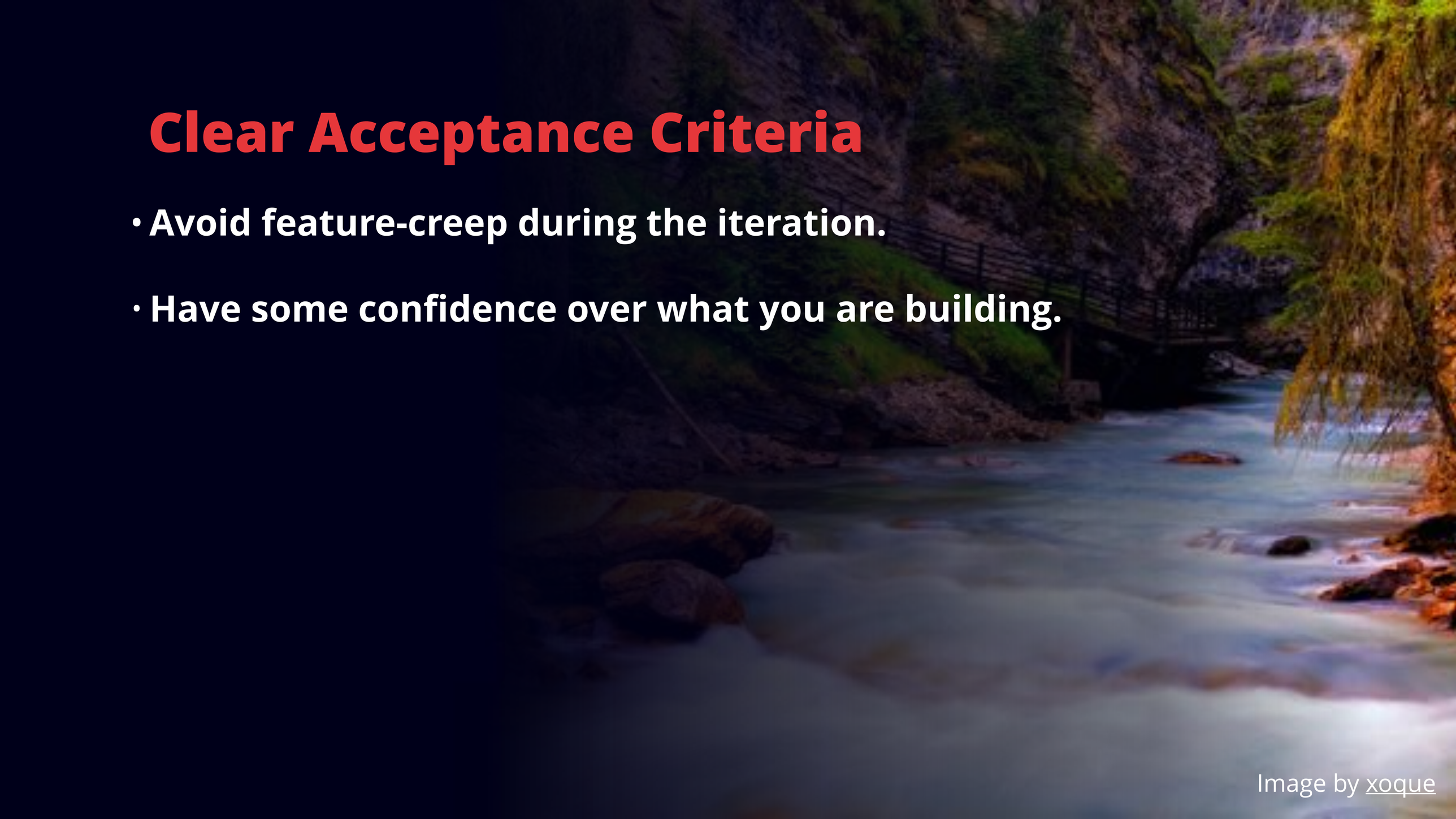
Clear Acceptance Criteria

- Avoid feature-creep during the iteration.
- Have some confidence over what you are building.



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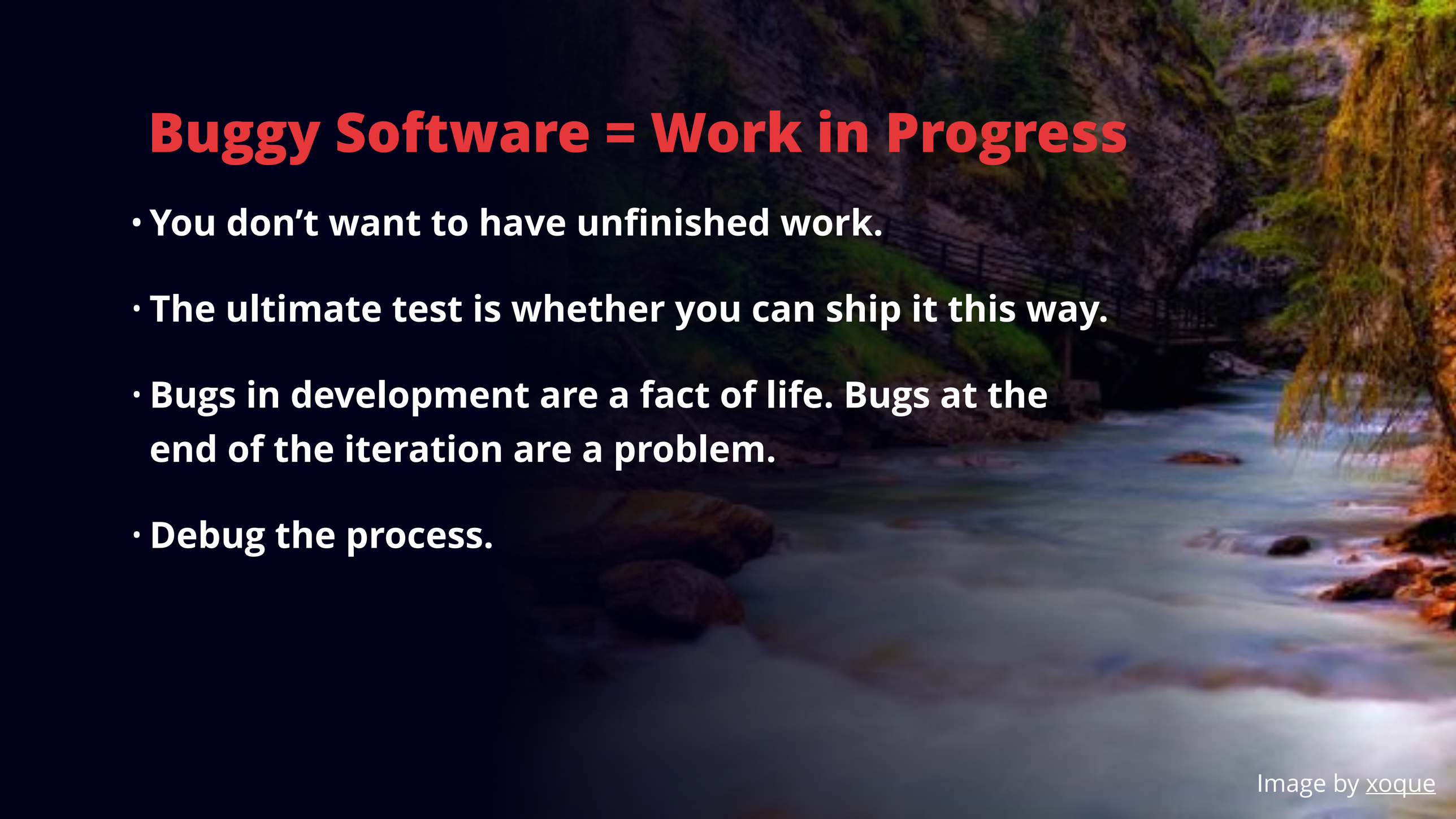
How: Not Getting Stuck on Bugs

Buggy Software = Work in Progress

- You don’t want to have unfinished work.
- The ultimate test is whether you can ship it this way.
- Bugs in development are a fact of life. Bugs at the end of the iteration are a problem.
- Debug the process.



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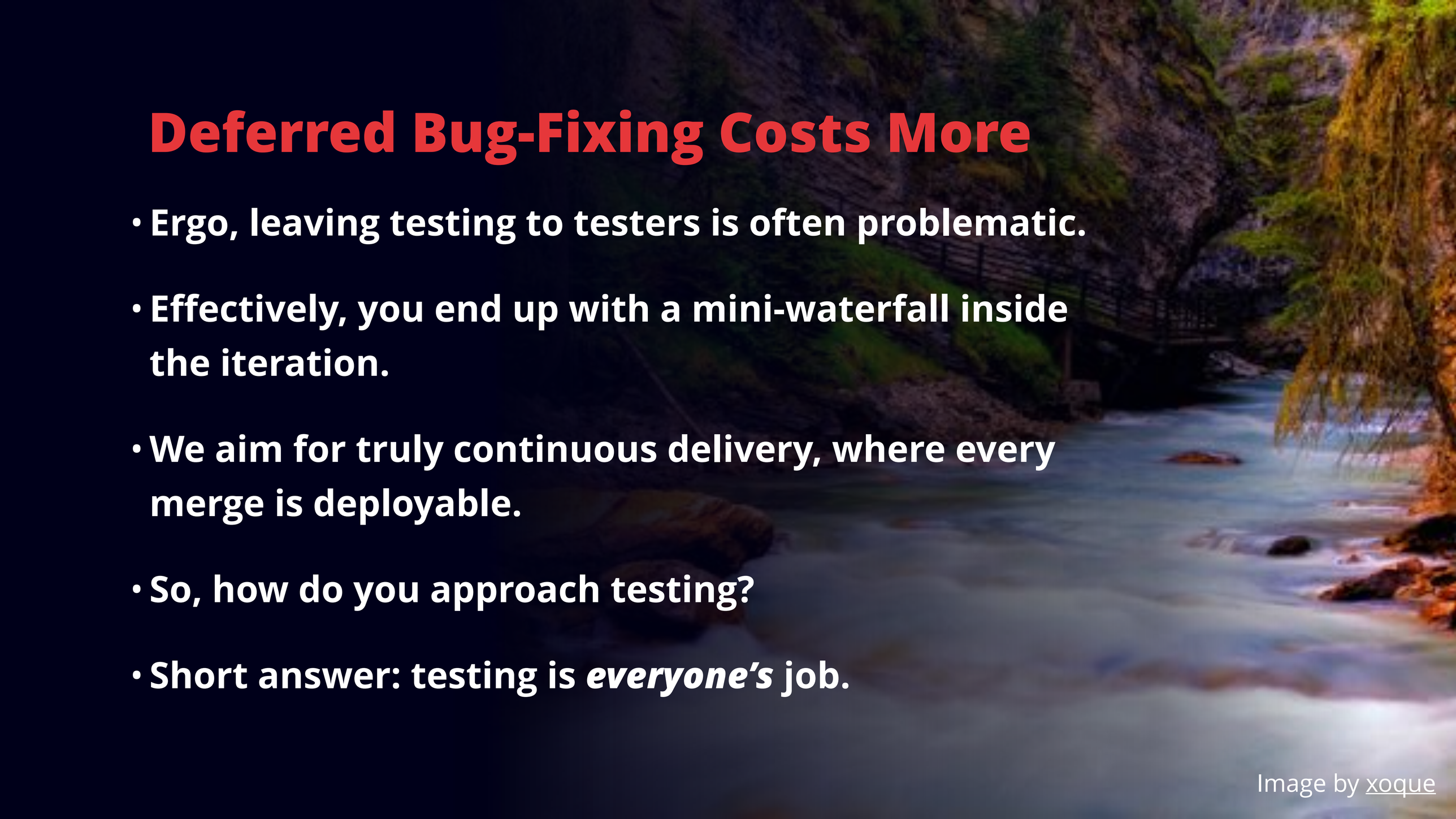
Deferred Bug-Fixing Costs More

- Ergo, leaving testing to testers is often problematic.
- Effectively, you end up with a mini-waterfall inside the iteration.
- We aim for truly continuous delivery, where every merge is deployable.
- So, how do you approach testing?
- Short answer: testing is ***everyone's*** job.



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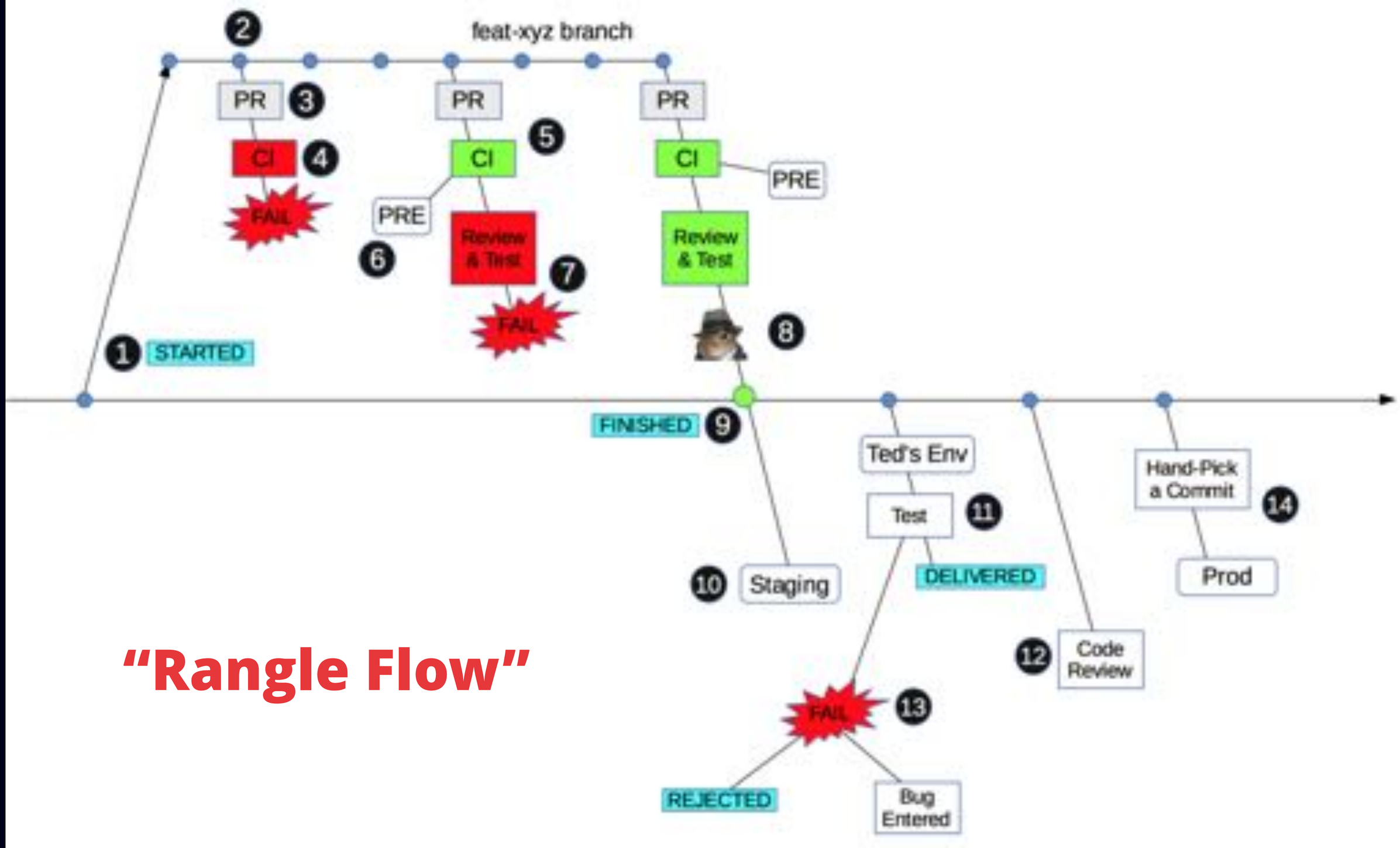
feat-xyz branch
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PR
5
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PRE
6
Review & Test
7
FAIL
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Staging
Ted's Env
Test
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DELIVERED
REJECTED
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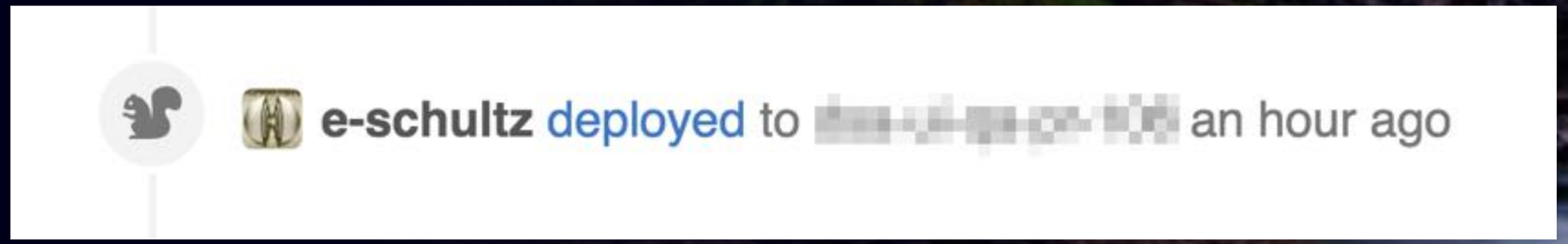
Bug Entered
12
Code Review
Hand-Pick a Commit
14
Prod

“Rangle Flow”

Build Environments

- Currently using Heroku's PR builds.



- Moving to a Docker-based setup, "the Clusternator": https://github.com/the-clusternator
- You want the same environment in staging and production.

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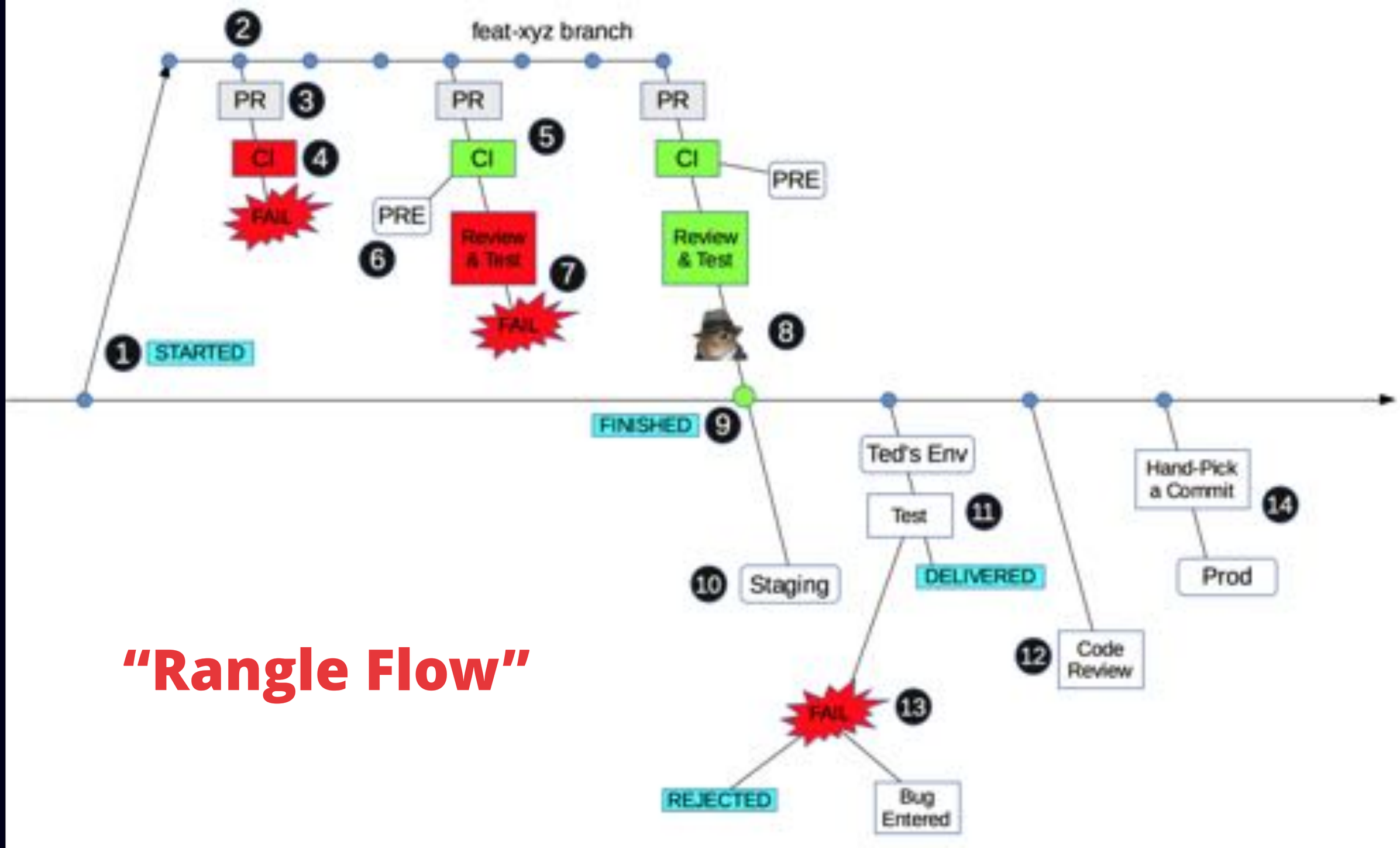
Cordova Apps

- Cordwood: https://github.com/rangle/cordwood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“Rangle Flow”

What Do the Testers Do All Day Then?

- Help write better stories!
- Coach developers.
- Debug the process.

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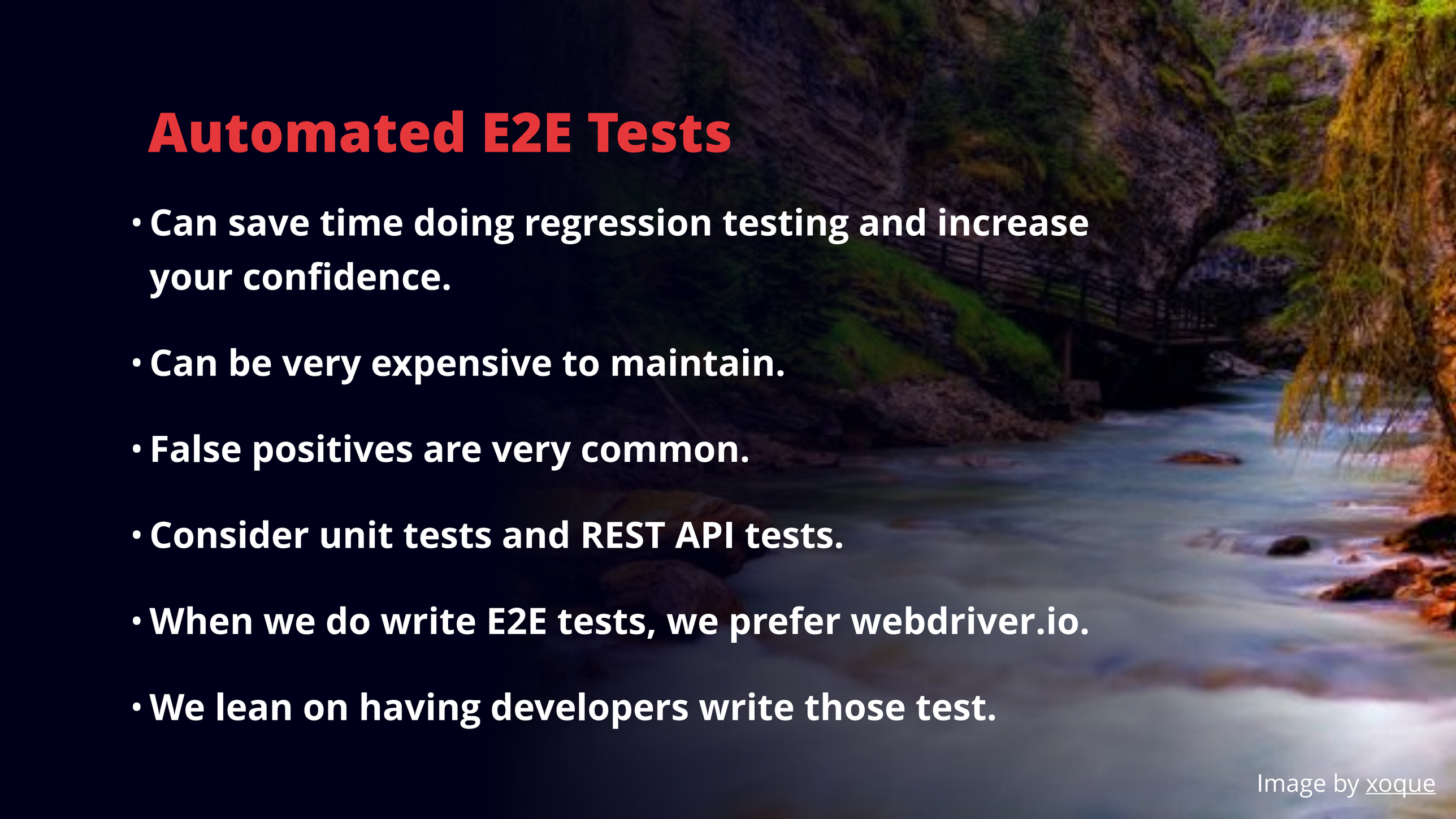
Automated E2E Tests

- Can save time doing regression testing and increase your confidence.
- Can be very expensive to maintain.
- False positives are very common.
- Consider unit tests and REST API tests.
- When we do write E2E tests, we prefer webdriver.io.
- We lean on having developers write those test.



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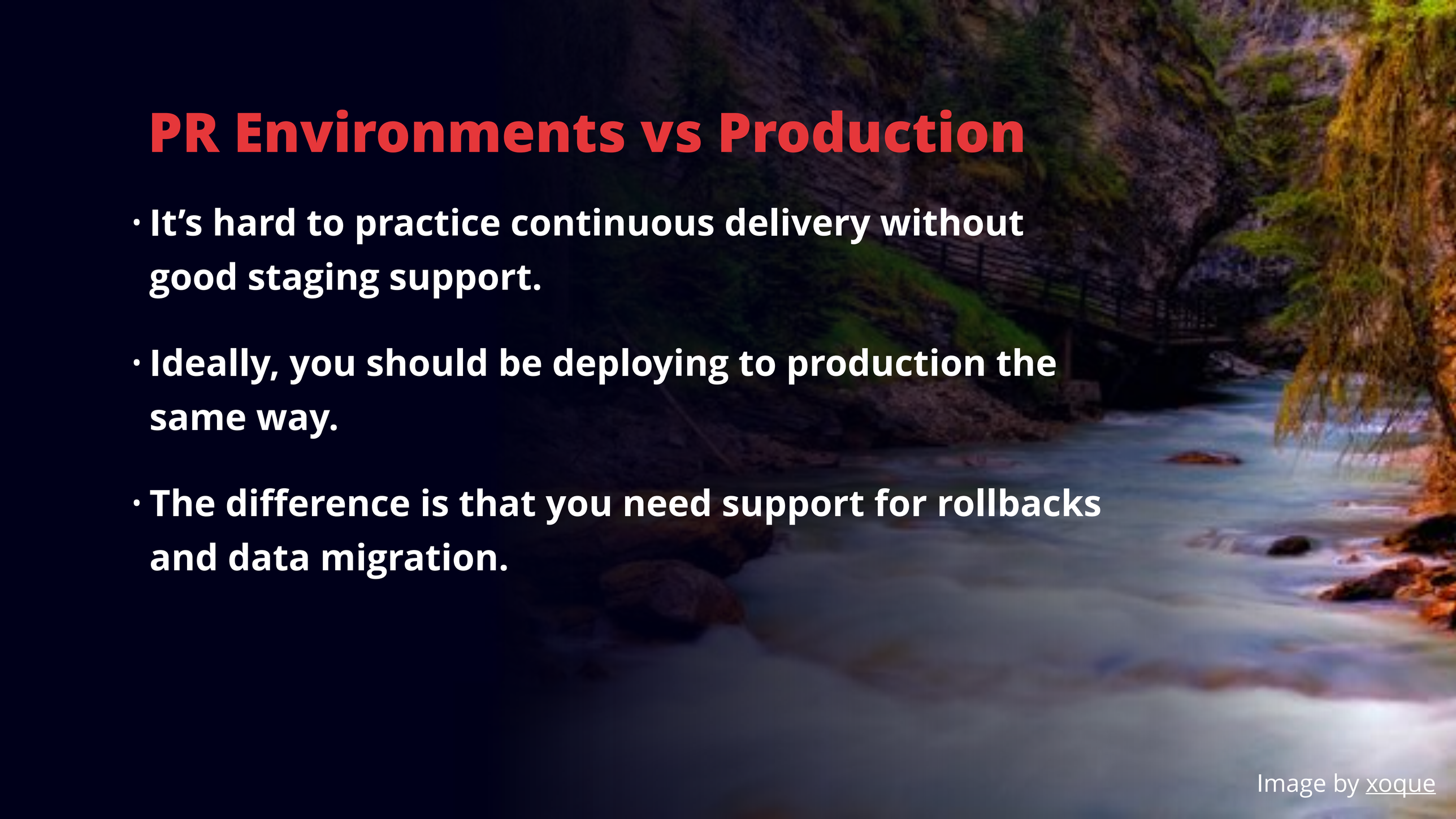
Continuous Deployment

PR Environments vs Production

- It’s hard to practice continuous delivery without good staging support.
- Ideally, you should be deploying to production the same way.
- The difference is that you need support for rollbacks and data migration.



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THANK YOU!

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Slides at http://yto.io/xcd

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