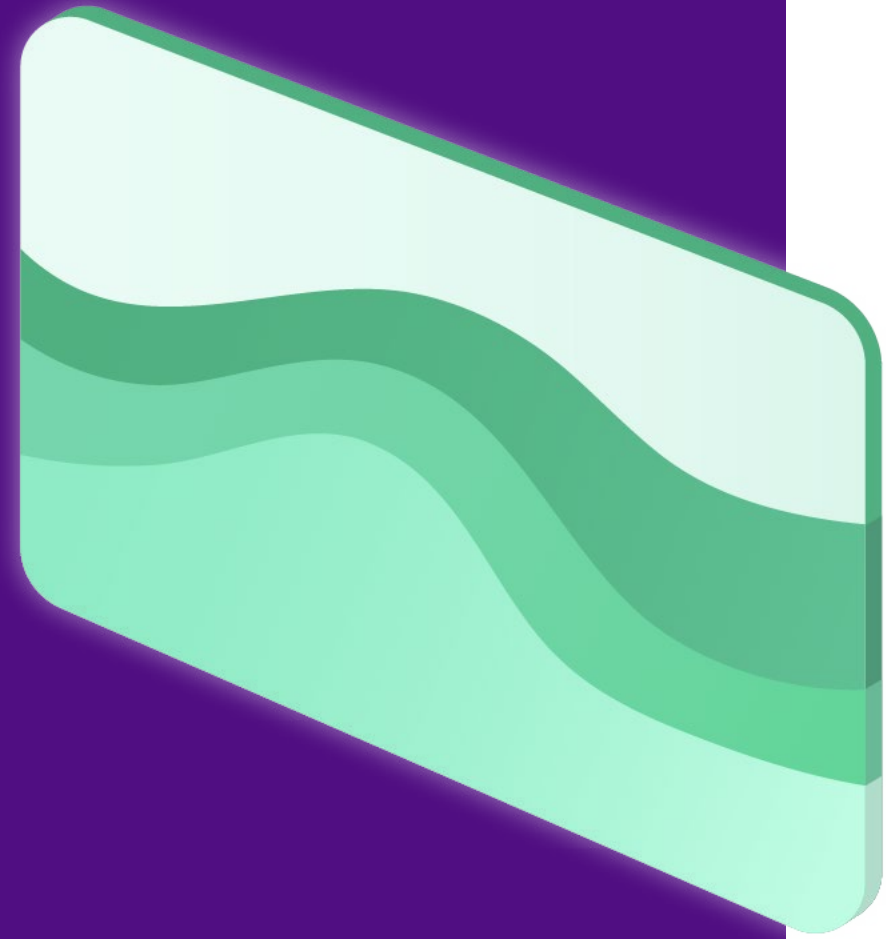**bitrise**

How to measure & improve your Mobile DevOps maturity

Fintech edition: the world's first benchmarks from 1600+ teams

bitrise

Table of Contents

Why use this guide

Understanding the level of a team's Mobile DevOps performance and maturity alludes many, if not most, organizations.
We see there as being two chief reasons for this.
One, we haven't had a standardized set of metrics that are fine-tuned for the singular challenges faced by mobile teams. And two, no one has put in the effort to survey and benchmark mobile teams against those metrics. **Enter MODAS** — the Mobile DevOps Assessment.

Using this guide will:

Highlight the DevOps performance metrics that are likely to drive the most business impact for your mobile team.

Provide a way of setting a performance benchmark for your team that's quick and easy to get started with.

Reveal how your team compares to other teams in your niche — which is to say, mobile finance.

Lead your team on a path to improvement by not only showing which areas of mobile app delivery you should improve, but provide resources to make the change a reality.

How to use this guide

The results and resources within this guide are interesting by themselves. But we recommend that you and your team take the MODAS assessment first.

This link will take you to the MODAS assessment

Comparing your own results with the following benchmarks will show you where your team could stand to improve. And once you know those areas — as defined by the stages of MODAS — you can use the resources section of this guide to help you go further.

And if you would prefer to discuss your results and find out how you can improve, you can contact our team — one of our experts would be more than happy to assist.
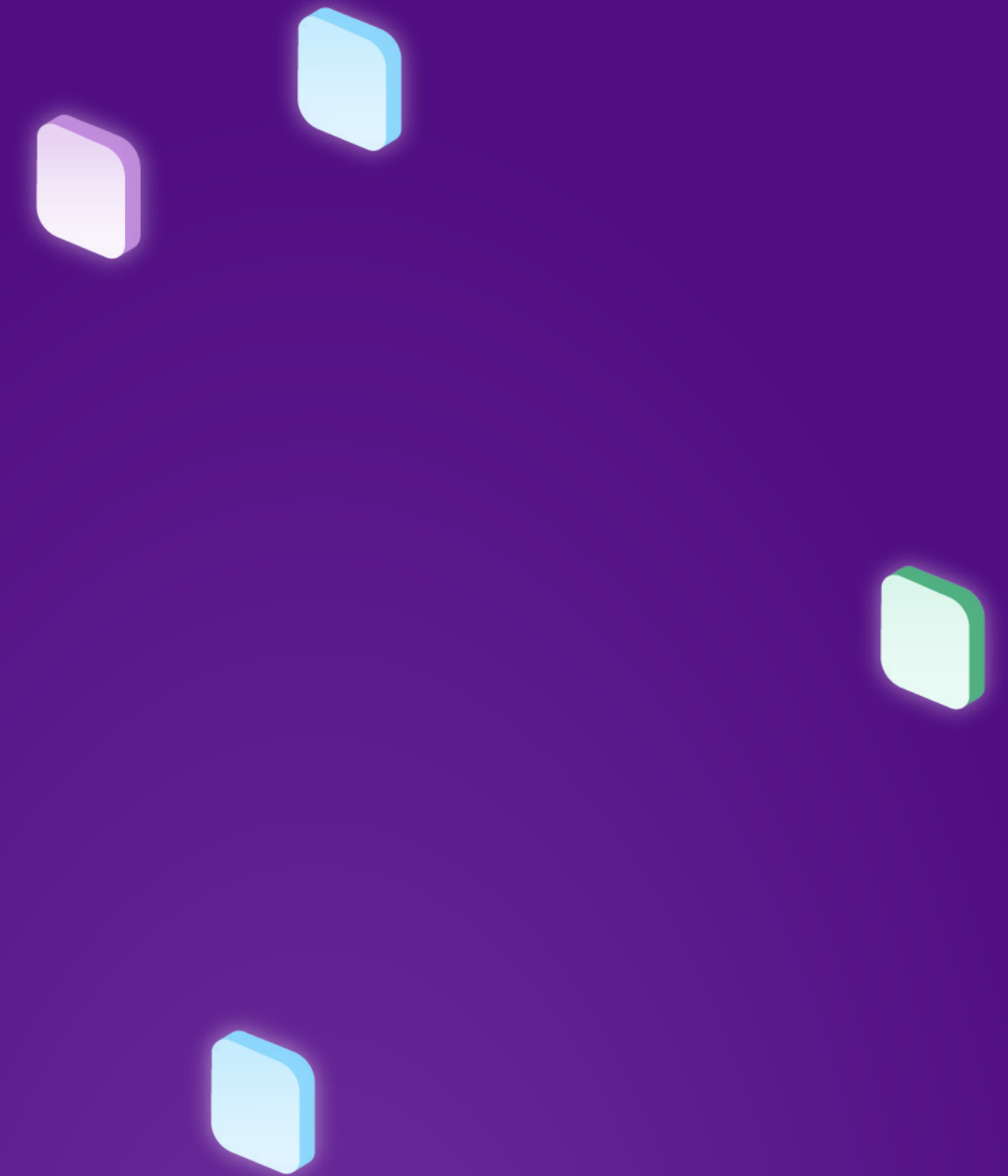
Understanding the MODAS metrics

MODAS:
Assessing Mobile DevOps performance, productivity, and maturity

MODAS is the first assessment of its kind, designed specifically for the challenges and opportunities that face mobile teams.

We have split the app delivery process into four key stages — Creation, Testing, Deployment, and Monitoring. And we have added a fifth, Collaboration, which spans the entire process.
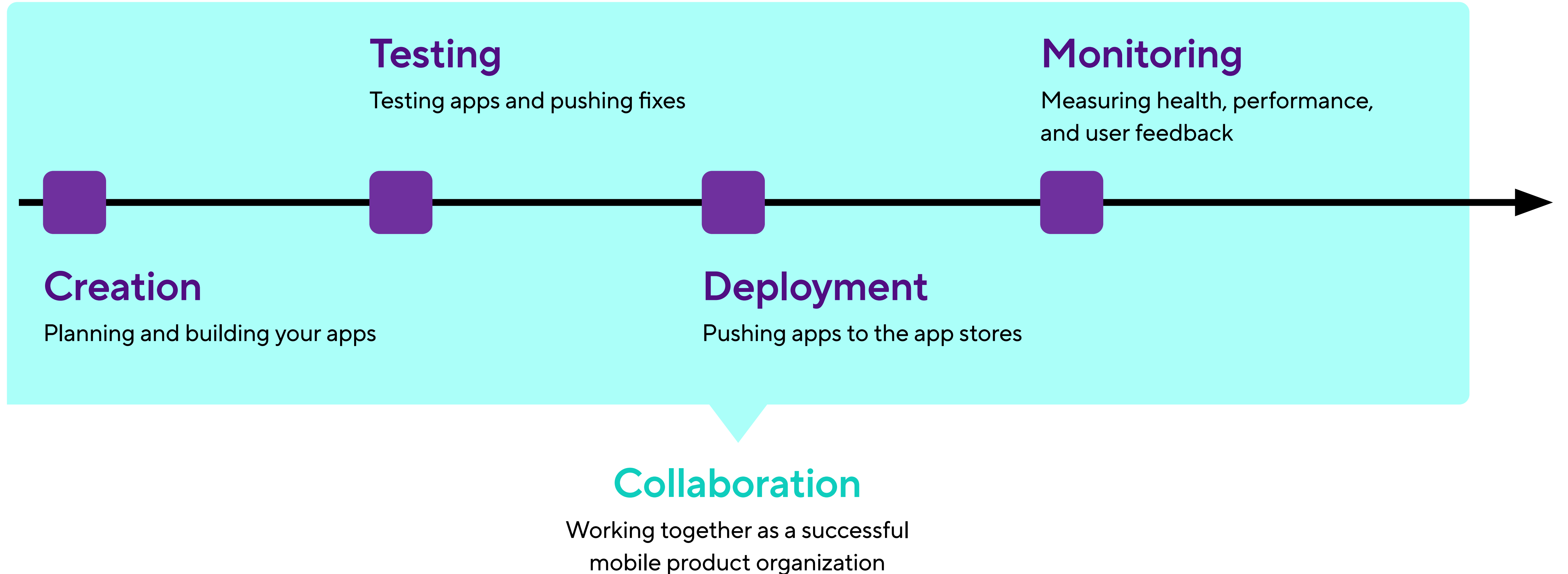
For us at Bitrise, the first step of this journey was releasing the survey. We have now had over 1600 teams provide responses to the survey.

The next step is analysing that data to highlight what performance marks out a high performer from a low performer, as we do in this report specifically for finance teams.

Following this, we will be delving even deeper, highlighting the specific processes, tools, and attitudes that cause high performance. We look forward to sharing this with you later in the year.

MODAS:
Assessing Mobile DevOps performance, productivity, and maturity

Testing
Testing apps and pushing fixes

Monitoring
Measuring health, performance, and user feedback

Creation
Planning and building your apps

Deployment
Pushing apps to the app stores

Collaboration
Working together as a successful mobile product organization

The MODAS benchmarks

In this section, we focus on the five key performance measures of MODAS — the first question within each section of the assessment.

We will show you what makes a team an average performer and what makes them a top performer. And, we have also presented other interesting insights from finance respondents — taken from the supplementary questions across each stage.

The MODAS benchmarks:
The results at a glance

MODAS stage	Key KPI question	Average performance within finance	High performance within finance
Creation	How long does it take for a scoped feature to be deployed to the app stores?	31 to 90 days	**14 days or fewer**
Testing	Approximately what share of your releases are hotfixes?	23.8-25%	**Less than 10%**
Deployment	How frequently do you deploy new versions of your app to the app stores?	Every 15 to 30 days	**14 days or fewer**
Monitoring	How long does it take, when necessary, to release a bug fix after launching a new version of your app?	2-3 days	**Less than 24 hours**
Collaboration	On a scale of 1-10, how would you rate the level of collaboration across your Mobile Product Organization?	8	**9 or higher**

Creation:

## How long does it take for a scoped feature to be deployed to the app stores?

■ All responses   ■ Finance teams
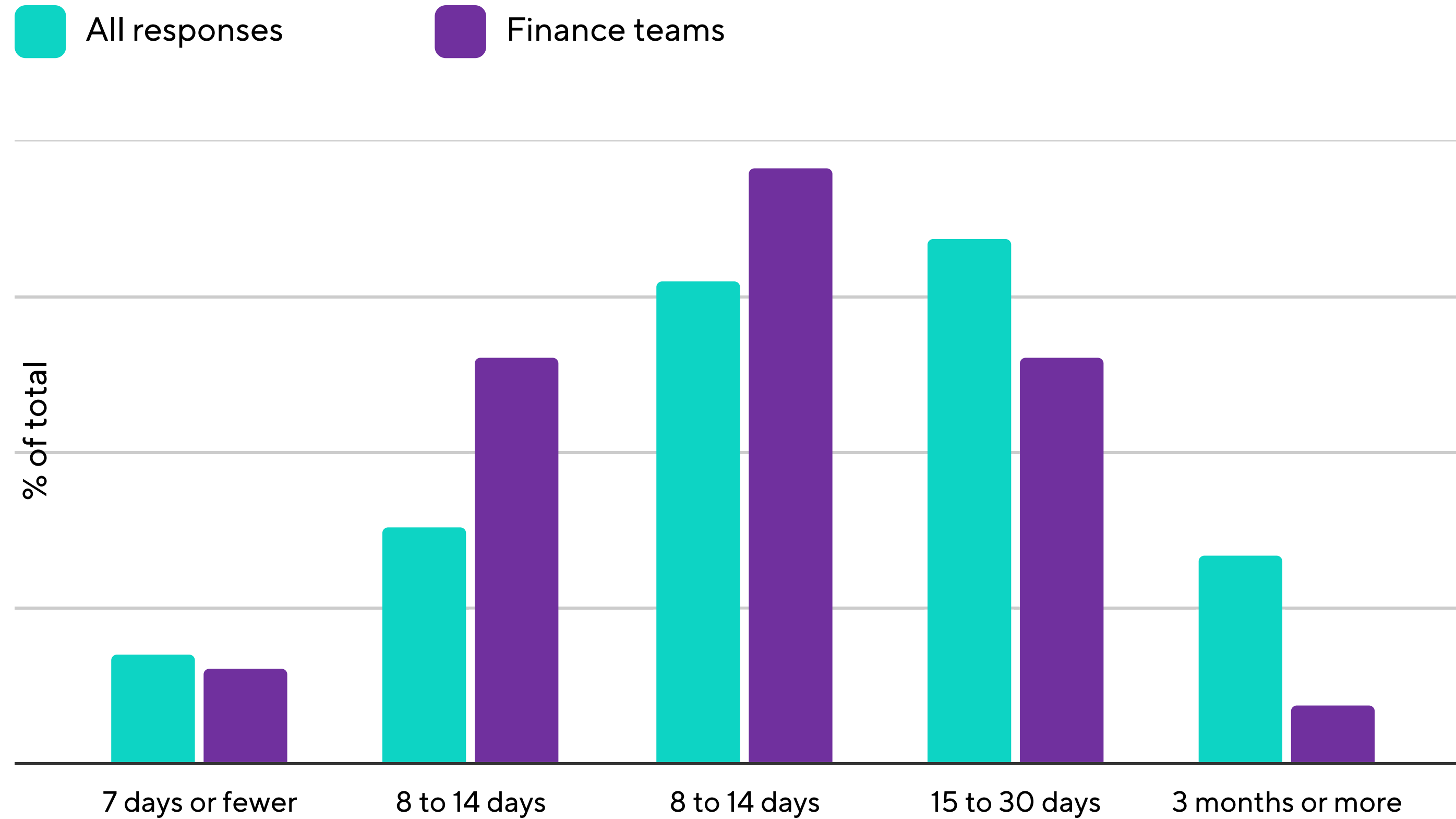
High performance	14 days or fewer
Average performance	31 to 90 days

Other insights from finance teams:

- **React Native** is the **most popular cross-platform framework** used by **24.8%** of teams, followed by Flutter at 13.1%.

- **38%** of teams manage **backwards compatibility via forced upgrading**, while the majority at 50.4% use graceful degradation.

- **38%** of teams use **code generation tools**, higher than non-finance teams at 30%.

Testing:

Approximately what share of your releases are hotfixes?
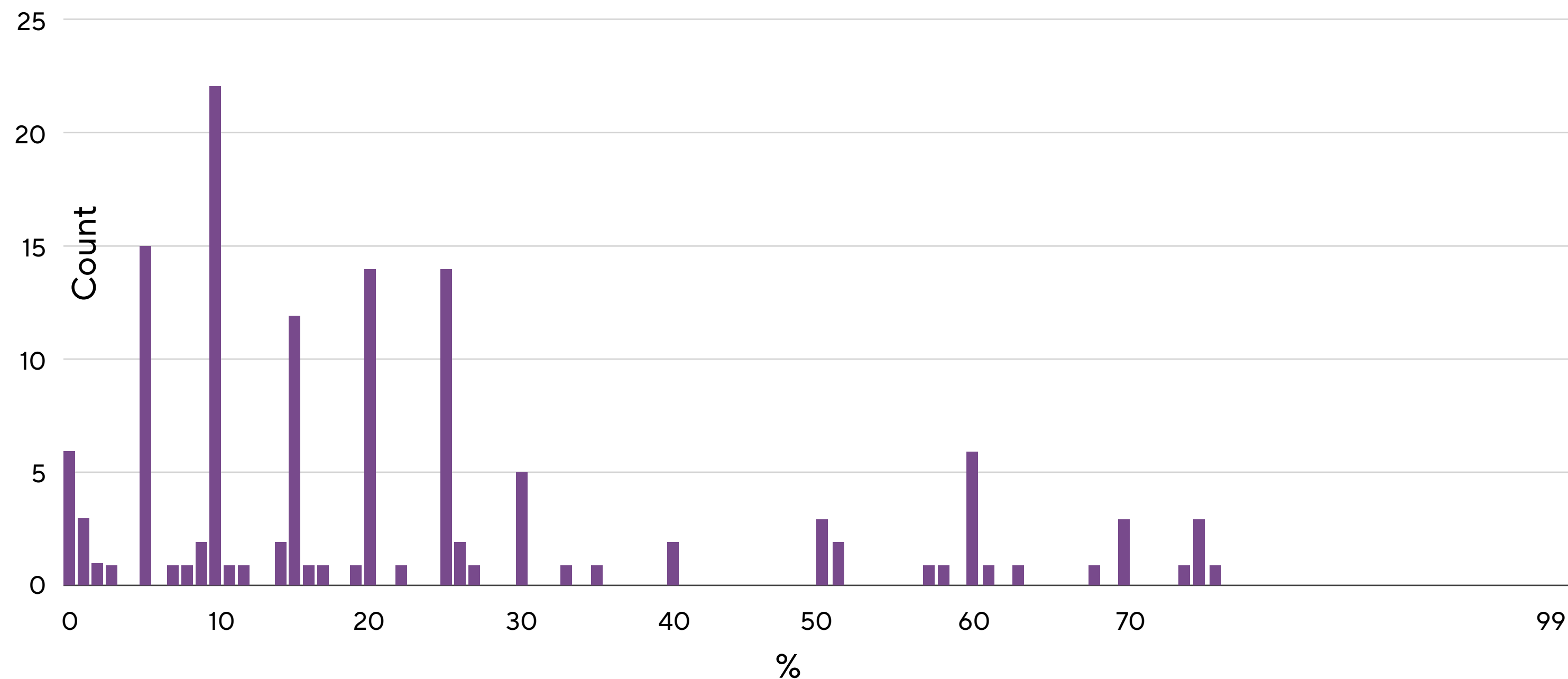
| High performance	Less than 10%
Average performance	24.3%

Other insights from finance teams:

- **57%** of teams spend **less than 30% of their engineering hours on testing an RC**, while 25.8% devote 30-59% of their hours to testing.

- Just **15.9%** of teams said they **test as many devices as possible** with a **device farm**, with 30.4% saying they test the most commonly used devices in their user base

- While finance teams performed static security analyses more than other groups, **the number is still surprisingly small at 48.3%**.

- The most common testing framework is XCTest / XCUITest at 52.7%, followed by Espresso (32.4%), Appium (30.4%).

- While **12.2% of teams said they used no testing framework**.

Deployment:

How frequently do you deploy new versions of your app to the app stores?
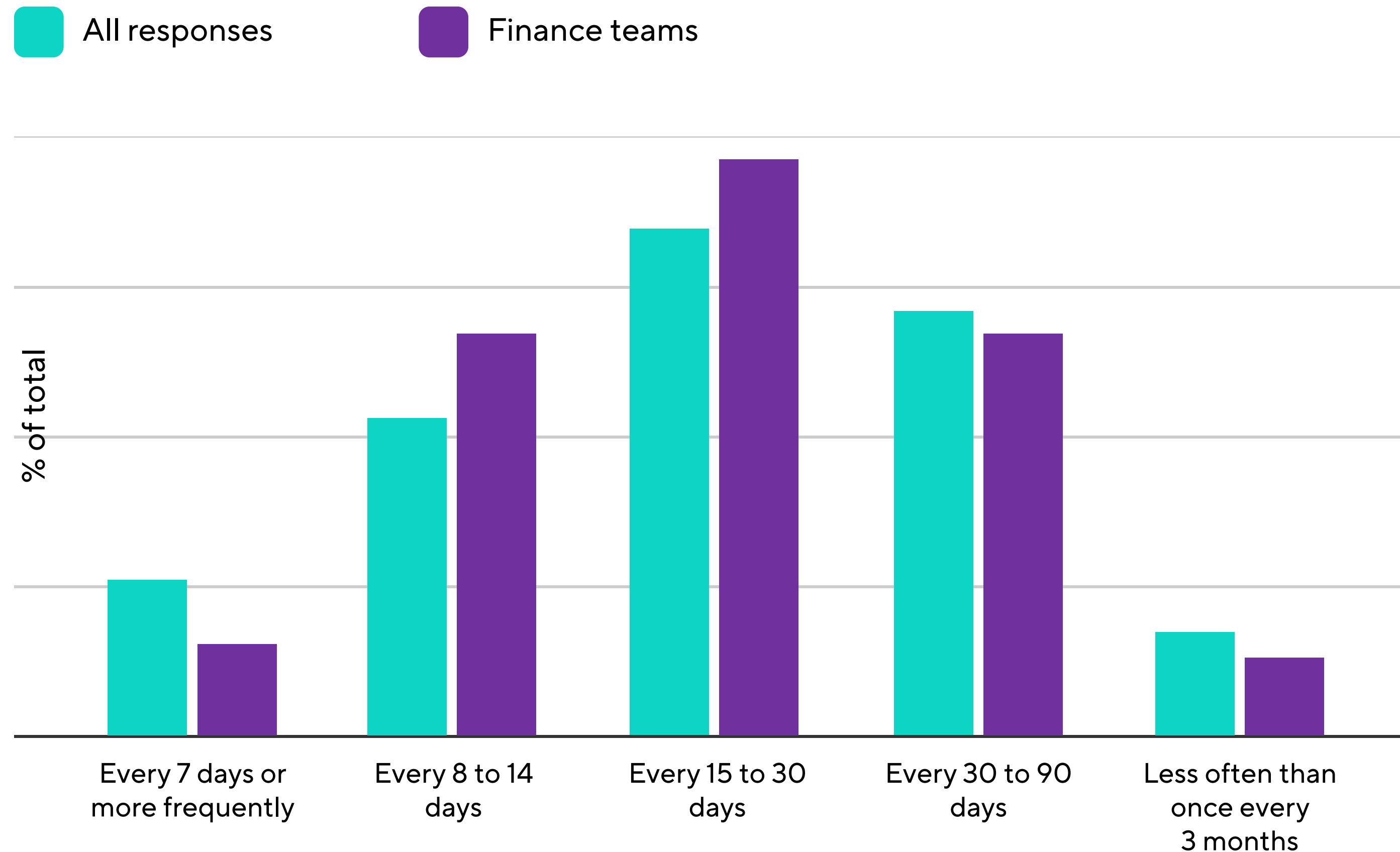
■ All responses   ■ Finance teams

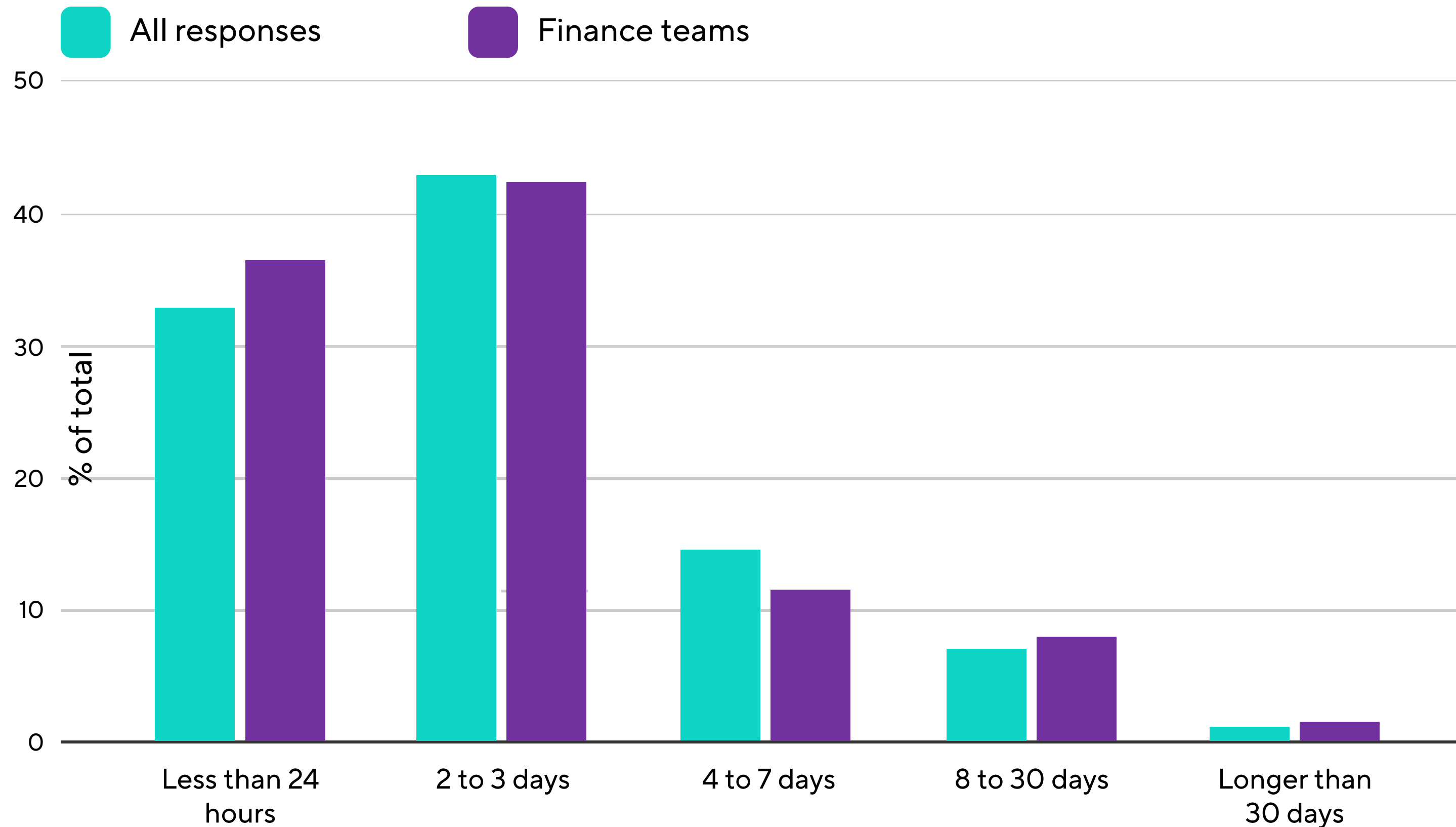| High performance	14 days or fewer
Average performance	Every 15 to 30 days

Other insights from finance teams:

- **40%** of teams said that their **release approval process was mostly or entirely manual** (and only 10.6% have it fully automated)

- **37.7%** of teams say it takes several days to go through their internal release validation process (while 21.9% have got it down to less than an hour)

- Just **33.1%** of teams use the **release train model**

- **37.7%** of teams think that their **release frequency is unsatisfactory**

Monitoring:

How long does it take, when necessary, to release a bug fix after launching a new version of your app?

Legend:
- ■ All responses
- ■ Finance teams

Bar chart titled "% of total" (y-axis from 0 to 50) with categories: Less than 24 hours, 2 to 3 days, 4 to 7 days, 8 to 30 days, Longer than 30 days.

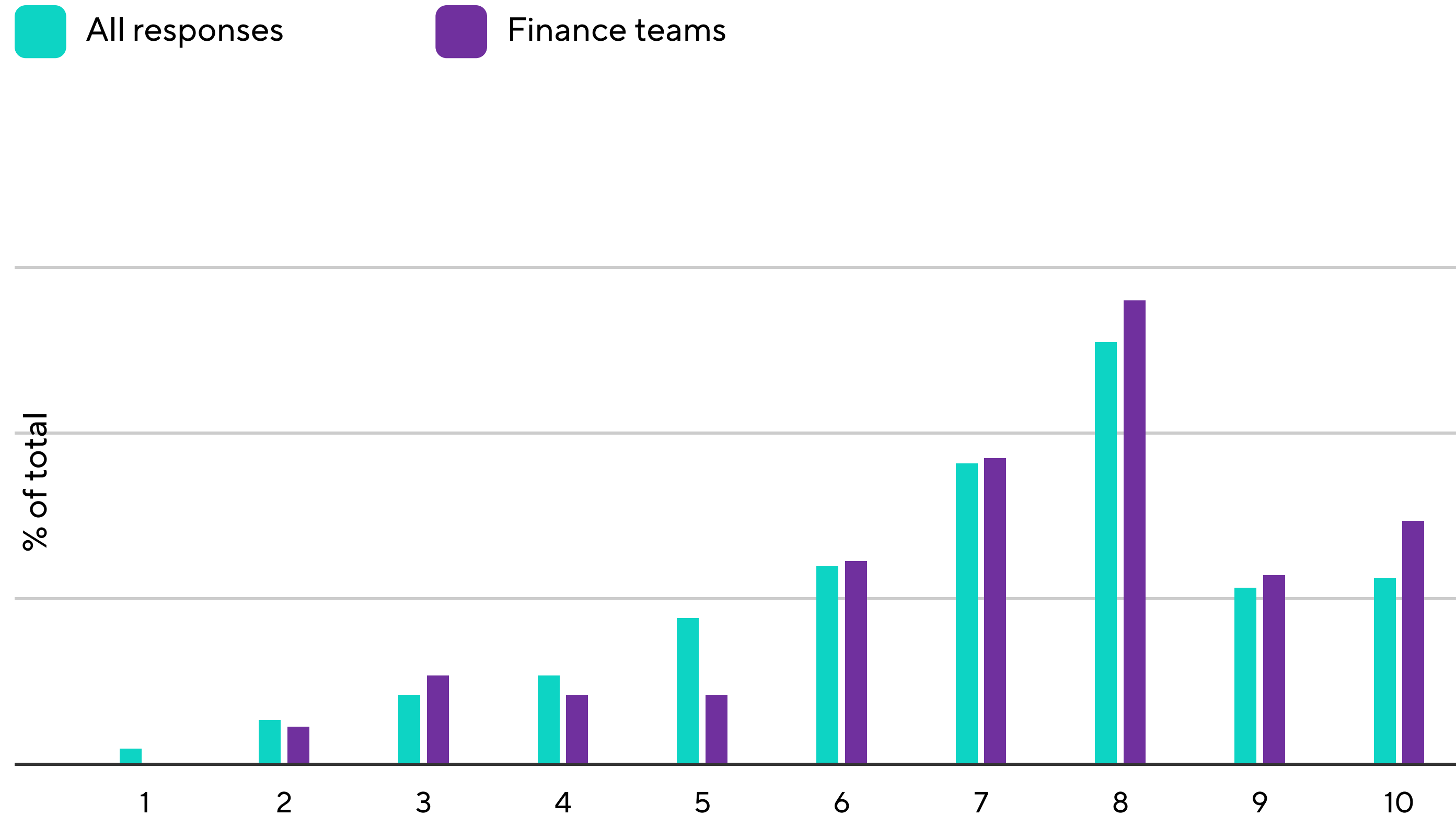|	
High performance	**14 days or fewer**
Average performance	**Every 15 to 30 days**

Other insights from finance teams:

- Only **41.1%** of teams have their app **cold startup time under 2 seconds**

- Only **63.3%** of teams do some form of **app performance monitoring**

- Only **36.1%** of teams **monitor their app size**

- It therefore comes as little surprise that **60.3% of teams said that their monitoring processes were insufficient**

Collaboration:

## How well does your Mobile Product Organization collaborate on a scale of 1-10?

■ All responses   ■ Finance teams

High performance	14 days or fewer
Average performance	Every 15 to 30 days

Other insights from finance teams:

- **27.1%** of teams don't have the features and functionality of their **iOS and Android apps in sync**

- Only **51.7%** of teams say they have **cross-functional teams** working together on projects spanning multiple teams

- Only **27.3%** have a **formalized planning process**

- **Finance teams were more likely** than non-finance teams **to have dedicated mobile platform team** at 73.3% (compared to 61.2%)
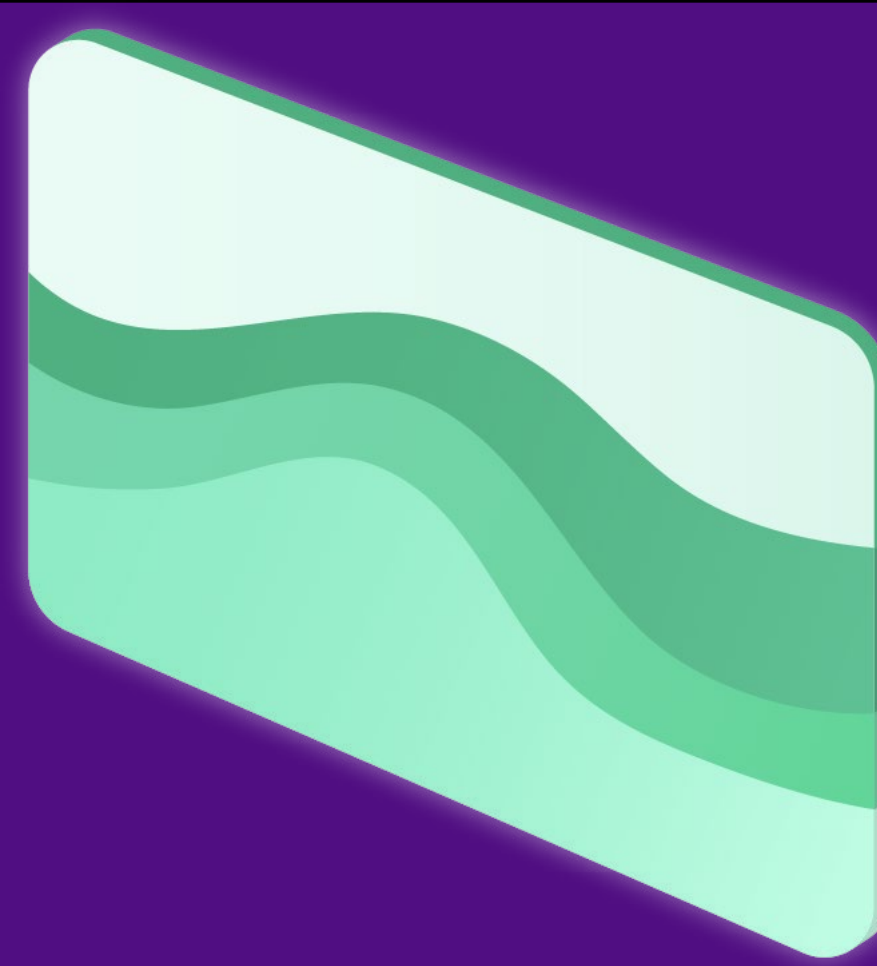
Resources to help your team improve

Once you and your team have taken the MODAS assessment, compare your results to the benchmarks in the previous section. This will highlight the areas in which you can improve.

This section will help with that question of "what next?" For each of the five stages of MODAS, we have gathered a small selection of useful resources (from us as well as elsewhere) to help with your progress.

#1 Creation

- **Success Story**: How **Generali Insurance** use Bitrise to increase build times by 20% & get their app in customers' hands faster. Read the story

- "How Uber Deals with Large iOS App Size" Read their engineering blog

- **Bitrise Blog**: Flutter vs. React Native: What's the best cross-platform framework in 2021? Read the blog

- **Bitrise Blog**: What was the force upgrade process at Uber? Read the blog

- Top 7 takeaways for Android App Bundles. Watch the Android Dev Summit video

- **Mobile DevOps is a thing!** What does mobile development look like in a leading UK bank? with NatWest's Adam Law. Listen to the podcast

📖 Read

📺 Watch

🎧 Listen

bitrise

📖 **Read**

#2 Testing

🟪 **Success Story**: How **N26** used Bitrise to double build speed, triple release frequency, and enhance security. Read the story

🟪 "How Uber Deals with Large iOS App Size".
Read their engineering blog

🟪 **Bitrise Blog**: How to release finance apps quickly and confidently with DevSecOps. Read the blog

🟪 **Bitrise Blog**: 19 automated mobile testing resources to take you from beginner to expert. Read the blog

📺 **Watch**

🟪 Top advantages of automated testing.
Watch the video with Bitrise's Moataz Nabil

🎧 **Listen**

🟪 **Mobile DevOps is a thing!** All about test automation: best practices with Angie Jones from Applitools. Listen to the podcast

The role of test automation — How N26 doubled speed and enhanced security

N26 is an international digital bank, serving over 7 million customers in 24 markets. Since they are **completely mobile-based**, all of their revenue depends on the mobile experience they deliver.

In the early days, they had a small team dedicated to manual troubleshooting. To ensure they have a strong CI/CD solution that covers all of their mobile-specific needs, they started using Bitrise in 2020. Since then, they:

- cut down the time spent on testing by **80% from 2.5 hours to a half hour**

- shortened their build times by **50%**

- **tripled their go-to-market speed**, reaching a stable, weekly cadence — something that used to take them at least 3 weeks.

The results: In 2021, N26 was voted the world's best bank in a global Forbes study and the company recently raised $900M to scale its offering throughout Europe and into South America.

Read the full success story

#3 Deployment

■ **Success Story:** How **Dojo** used Bitrise to build a bi-weekly release train.
Read the story

■ Monzo: "Our mobile release process: An illustrated story"
Read their engineering blog

■ **Bitrise Blog:** From development to production:
seven tips to optimize mobile app deployments. Read the blog

■ "From Development to Production: Tips to Optimise Android App
Deployments". Watch Moataz Nabil's talk from droidcon Italy

■ **Mobile DevOps is a thing!** Mastering continuous deployment
with Keegan Rush. Listen to the podcast

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🎧 **Listen**

📖 **Read**

📺 **Watch**

🎧 **Listen**

#4 Monitoring

■ Leveraging Mobile Infrastructure with Data-Driven Decisions. Read Spotify's engineering blog

■ **Bitrise Blog:** Bringing a better customer experience to finance apps with Bitrise. Read the blog

■ **Bitrise Blog**: How to boost app engagement with mobile application performance monitoring (APM). Read the blog

■ **Build Insights Pro**: Introducing Bitrise's own CI/CD Performance Monitoring Tool. Watch the video with Bitrise's Colin Hemmings

■ **Mobile DevOps is a thing!** App Performance Monitoring with Rasmus Larsson. Listen to the podcast

#5 Collaboration

Success Story: How Wise used Bitrise to quickly onboard new engineers, scale their team, and expand into new markets. Read the story

Bitrise Blog: How to fit agile methodologies into the constraints of fintech app development? — featuring N26 Read the blog

Bitrise Blog: At which point do you need a platform team? Read the blog

Why do you need a mobile platform team?
Watch the video with Bitrise's Moataz Nabil

Mobile DevOps is a thing! Remote work and Mobile DevOps with Joe Birch
Listen to the podcast

📖 **Read**

📺 **Watch**

🎧 **Listen**

How Affirm uses today's technology to create a fintech SuperApp

Affirm is a publicly traded financial technology company based in San Francisco, with partners including Walmart, Target, Amazon, Expedia, and many more. They have recently launched their SuperApp — a one stop shop offering the best of their shopping, payments, and financial services.

Having a stable and engaging mobile app is at the core of their business: if the app works well, it builds trust and legitimizes the brand in the eyes of customers. Since their mobile app generates the majority of their revenue, its performance can make or break their business.

Keeping the quality of their app high is their main focus. To ensure they have a strong CI/CD solution that covers all of their mobile-specific needs, they build their app on Bitrise's Gen2 machines.

The results: since they started using Bitrise, the team has:

• Shortened their build times **from over 60 minutes to 12-18 minutes**,
• **Saved many hours a day** by leveraging parallel builds,
• Raised their **app success rate to above 90%**,
• Achieved **higher ratings in the app stores**, 4.9 on iOS and 4.5 on Android

Read the full success story

bitrise
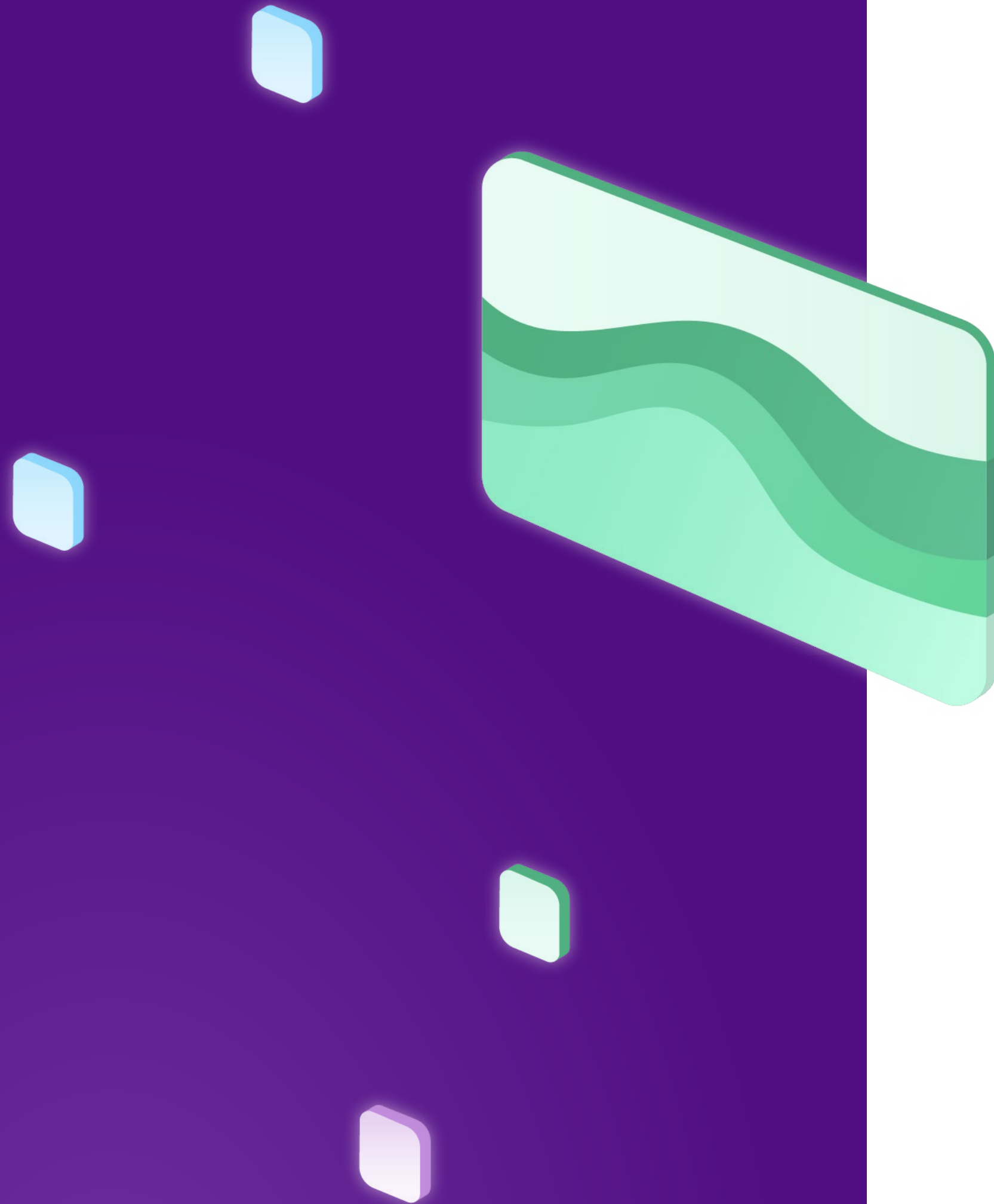
A recap:
(and what to do now)

You now know how the average mobile finance team performs across five key Mobile DevOps performance metrics. You also know what marks out a high performer.

You will also, hopefully, know what your own team's benchmarks are and have highlighted the areas where your team needs to improve.

Now it's time to make those improvements.

The resources we've offered throughout this guide are just a start. While not intended to be comprehensive, they should provide you with inspiration and nudge you in beneficial directions.

They also only scratch the surface of our library of blogs, podcasts, videos, webinars, and whitepaper reports.

![bitrise logo]

Bitrise is a Mobile DevOps platform build around industry-leading mobile CI/CD and DevOps tooling. Bitrise ensures confidence, velocity, and continuous improvement across the entire cycle of app value creation, delivery, and realization.

On Bitrise, teams easily release and maintain high-quality apps through automation, rapid iteration, and improvement in the development process. **As a result, apps deliver more impact for the business, while teams scale quickly and efficiently.**

Founded by mobile developers, Bitrise is trusted by more than 6,000 mobile product organizations worldwide, including Rakuten, WISE, Bose, Virgin Mobile, Grindr, Compass, Mozilla, Philips Hue, and Marks & Spencer. Bitrise now counts 200+ people across continents, and has raised close to $100M in funding to date from investors like Insights Partners, Partech, Y Combinator, and more.

www.bitrise.io

bitrise

Mobile engineers behind some of the most popular apps rely on Bitrise to streamline their build, test, and deployment processes. By eliminating manual tasks like maintenance, fixing errors, and performance upgrades, we help customers iterate faster, release with confidence, and build apps that are used and loved by millions of users around the world.

Trusted by the world's most sophisticated mobile teams

N26 neo WISE

Paysafe: affirm GENERALI