

# **RSA**Conference2022

San Francisco & Digital | June 6 – 9

**TRANSFORM**

SESSION ID: **PART2-R05**

## **The Rise of API Security: It's 10 pm – Do You Know Where Your APIs Are?**

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# Take Aways From This Talk

HEADLINES: API Security & Florida Man

Drivers Behind API Growth and API Security

What Security Engineers Need to Know About:

- Agile, DevOps
- Cloud-Native Software Architecture
- API Economy and API-First

Continuous API Management



Florida Man  
@\_FloridaMan



...Attacked During Selfie by Squirrel

...Asks Police To Test Meth for Authenticity

...Tries to Rob GameStop While  
Wearing Transparent Bag on His Head

...Dances on Patrol Car to Escape Vampires

...Drives Date to Sports Bar on Stolen Mobility Scooter

...Arrested for Illegal Ride on Manatee



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api security survey says



All



News



Images



Videos



Shopping

Tools

Page 2 of about 108,000,000 results (0.36 seconds)

...sharp rise in API attacks over past year

...sharp rise in API attacks over past year

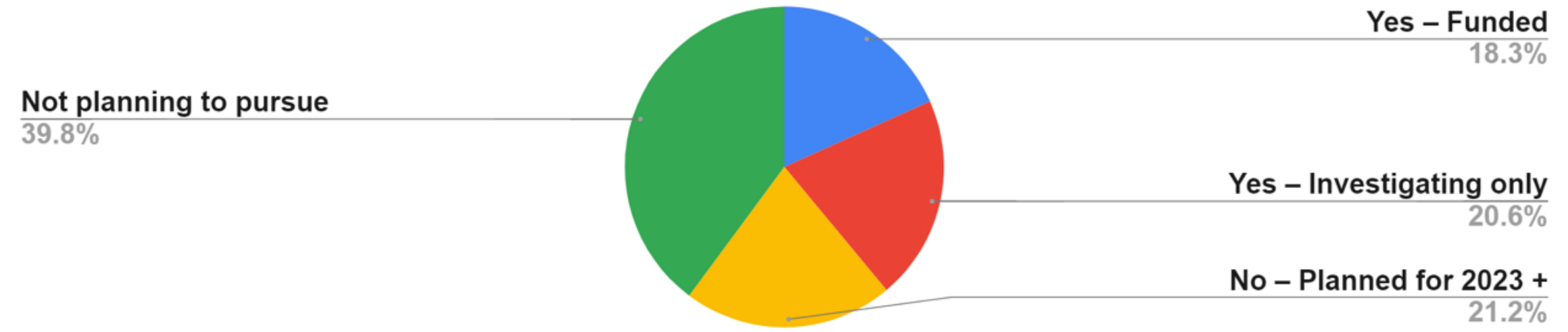
...solutions don't provide robust API  
protection

...APIs a growing security risk

...lack confidence knowing which APIs expose  
personally identifiable information (PII)

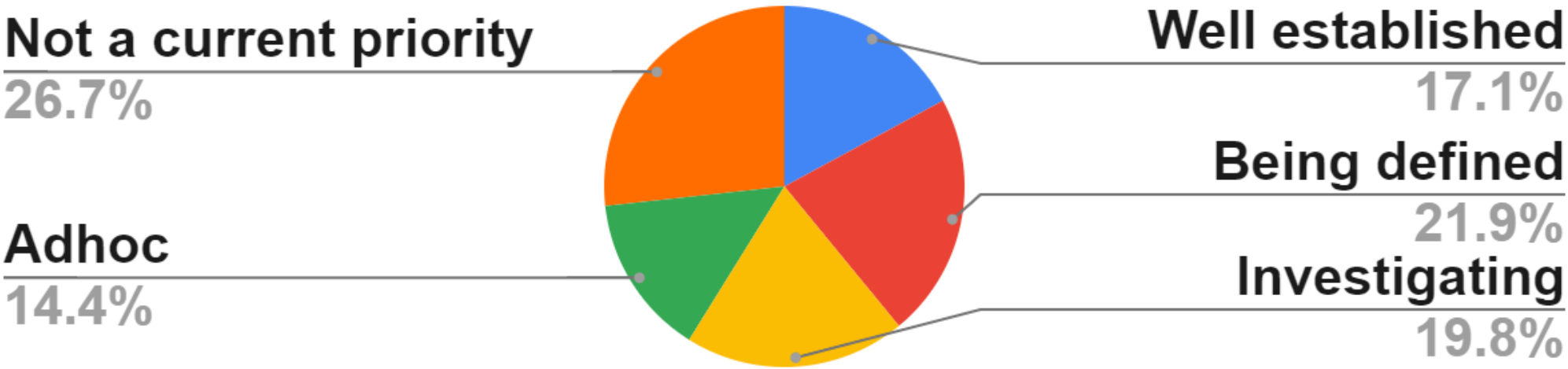
...% enterprises experience substantial API  
security and privacy issues

# Do you have an API security project in 2022?

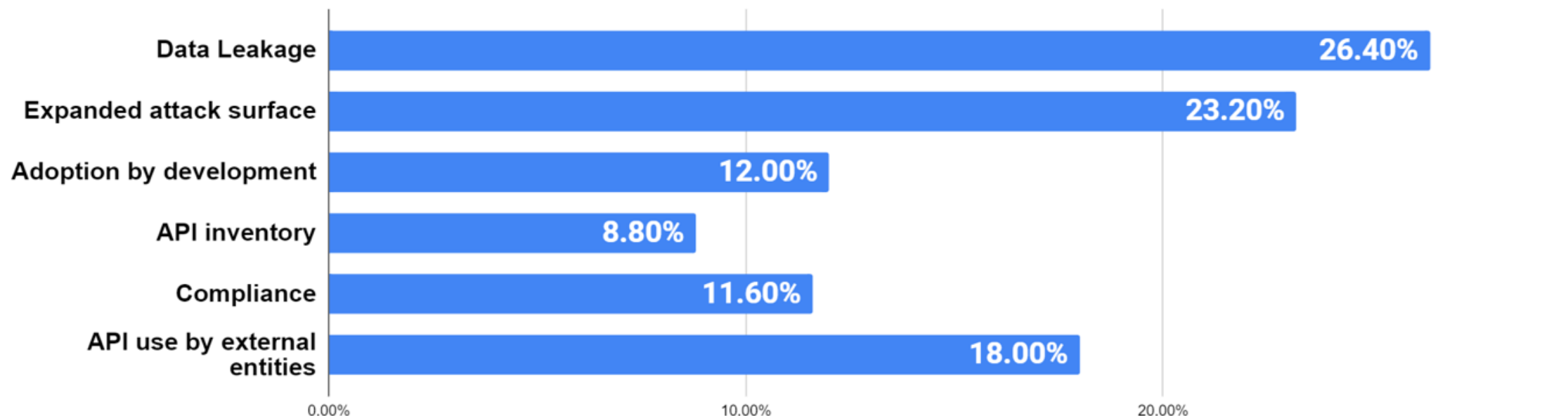




# What is your API security maturity?



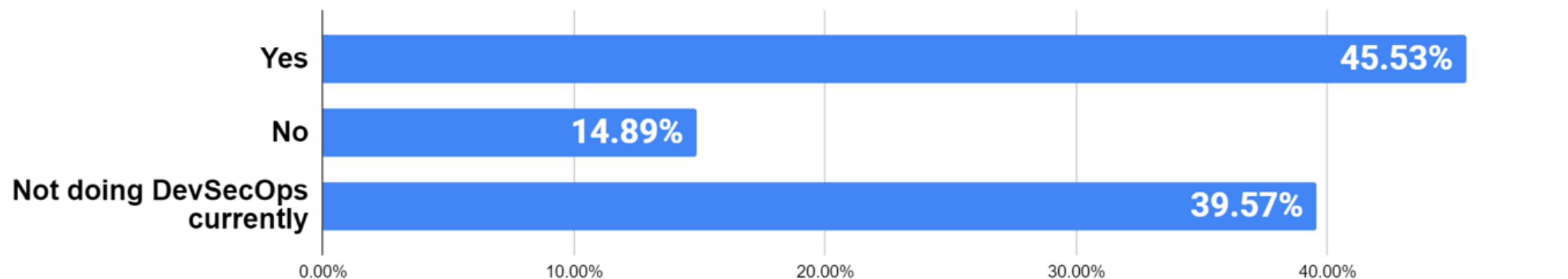
# What are your top 3 concerns regarding API security?



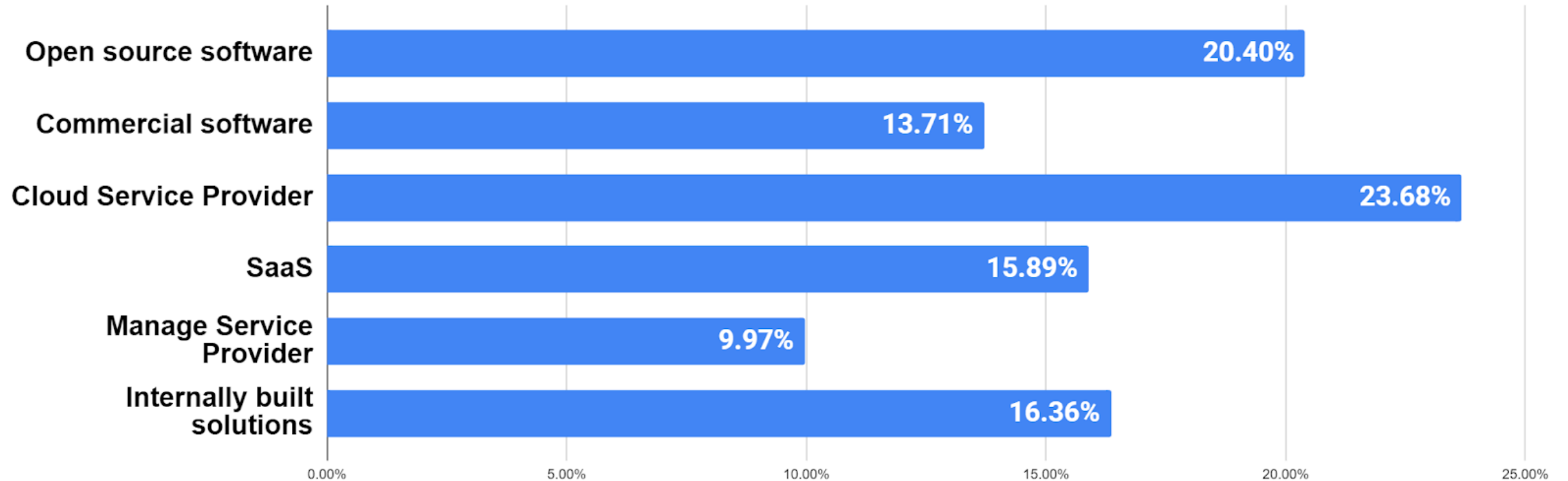
Techstrong Research  
PulseMeter



# Does your DevSecOps process prioritize API security?



# What do you rely on for API security solutions?



Techstrong Research  
PulseMeter

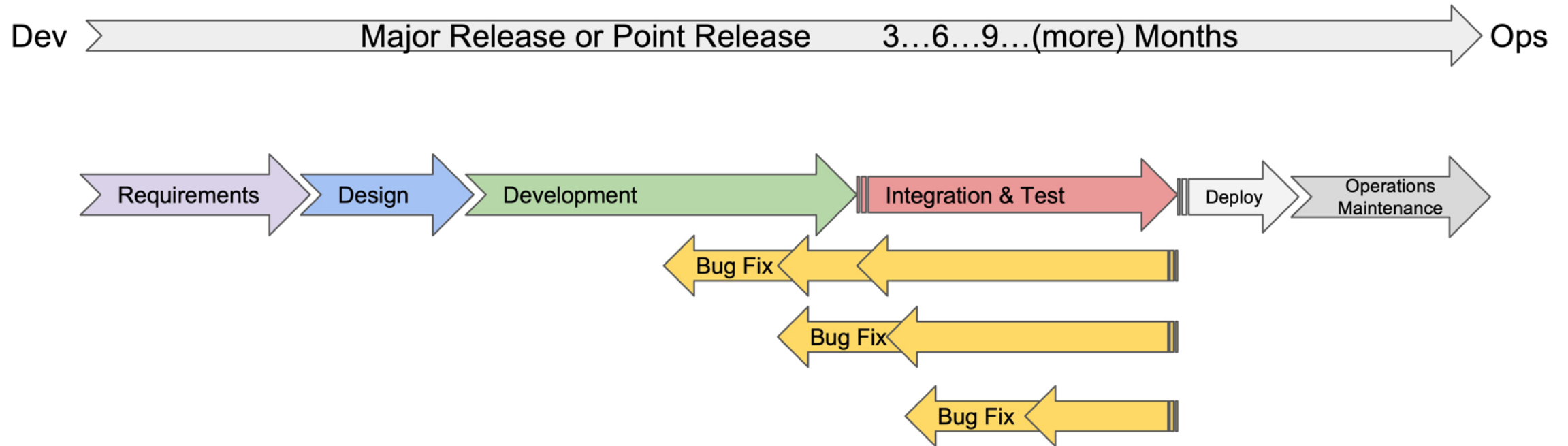
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## API are on the rise. But why?

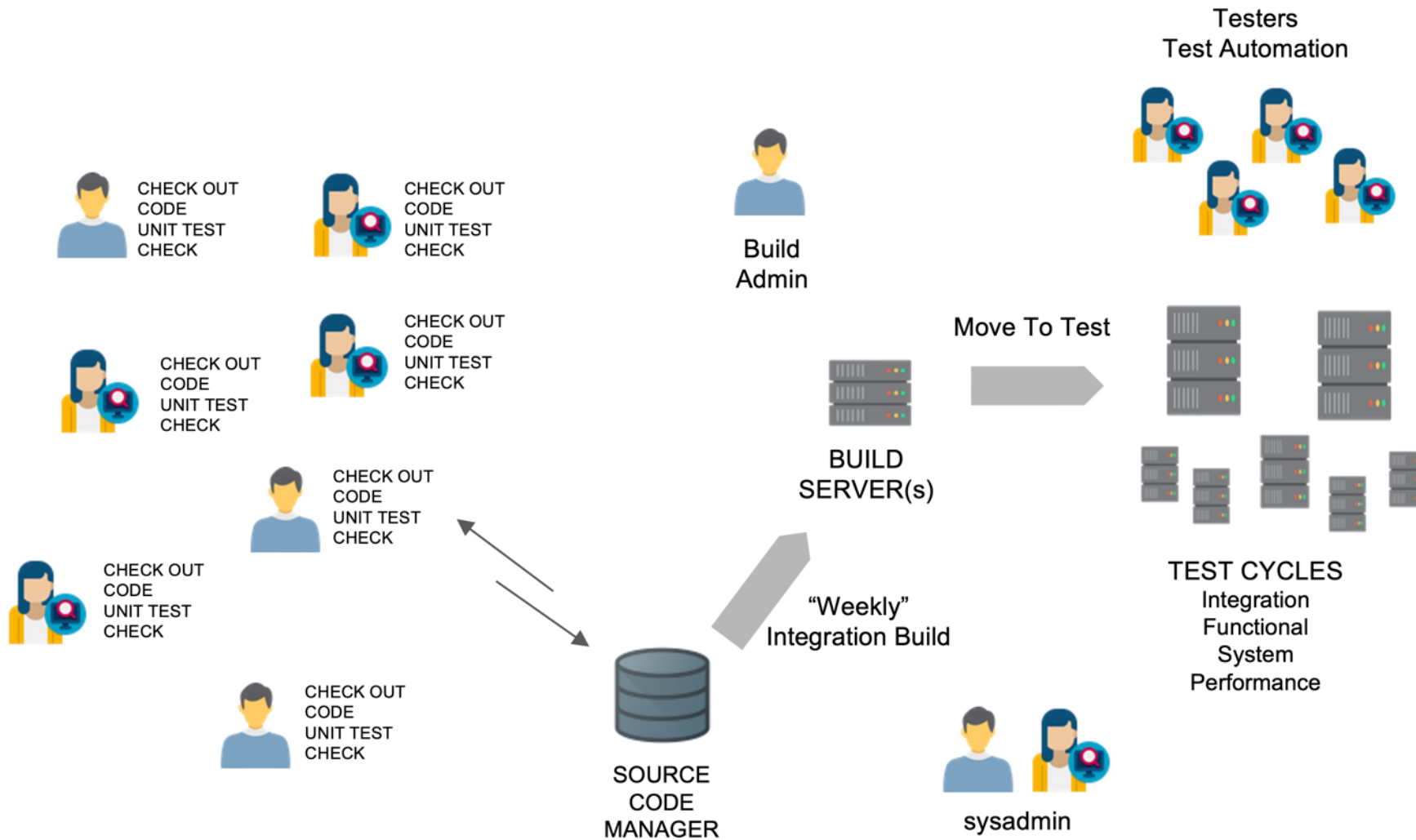
**Dramatically Changes in How We Create Software**



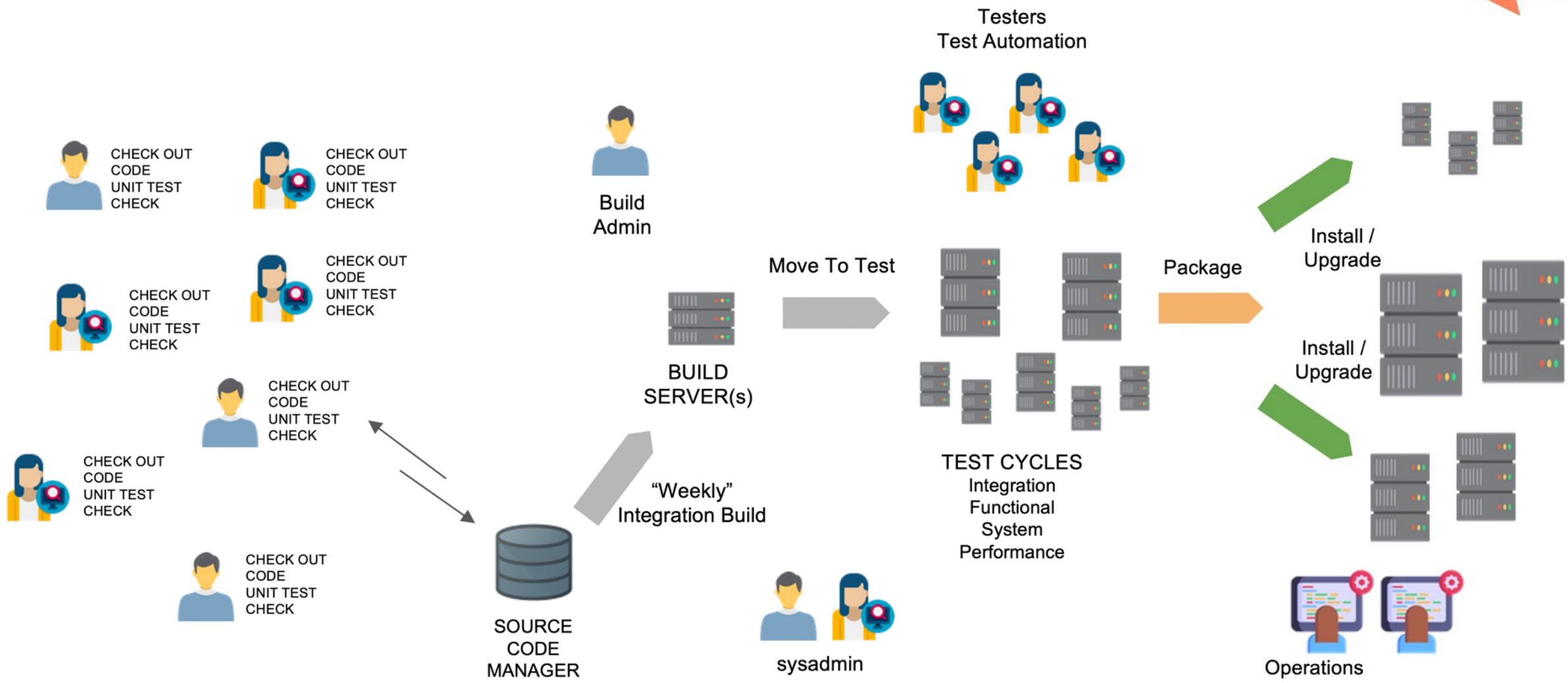
# Traditional / Waterfall Development



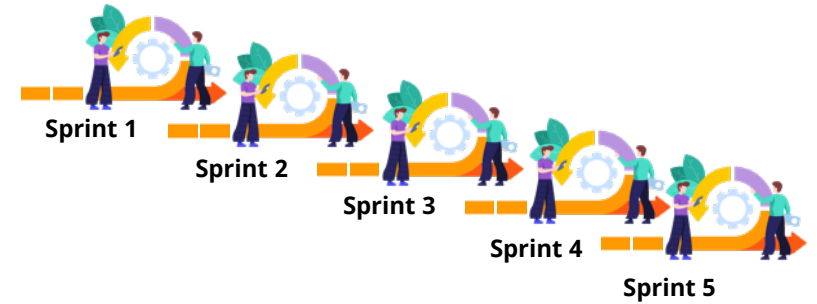
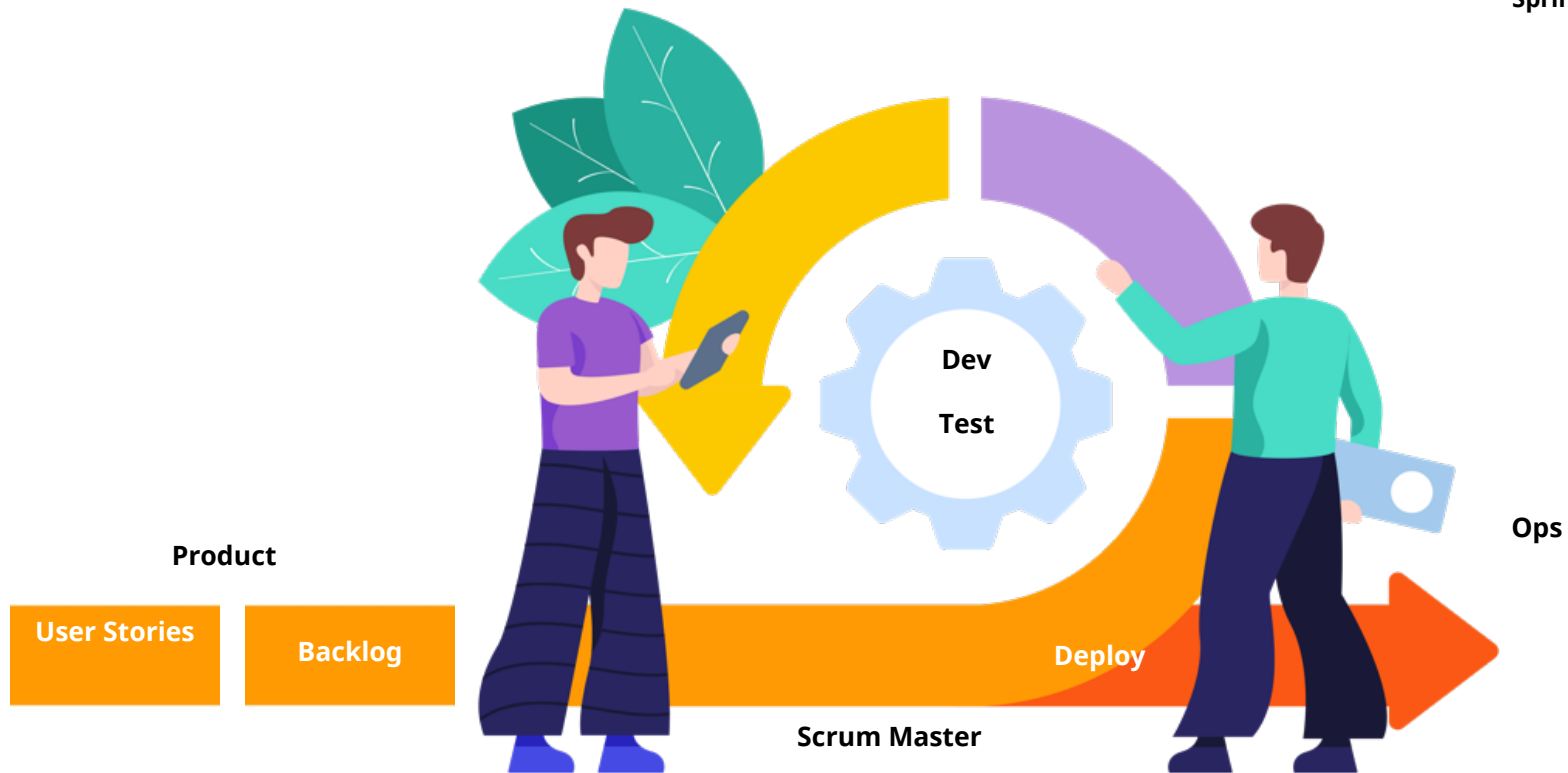
# Traditional SDLC



# Traditional SDLC



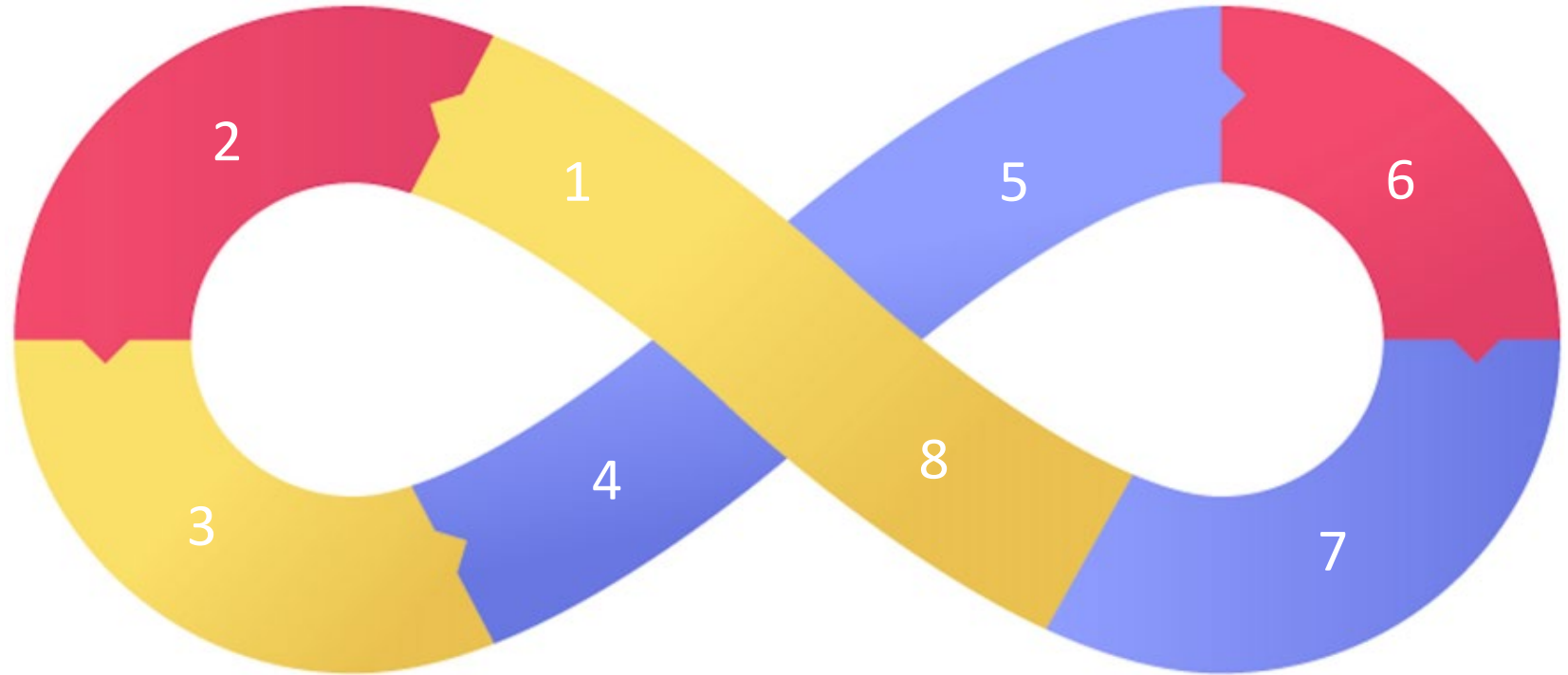
# Agile: 2-4 Week Sprints



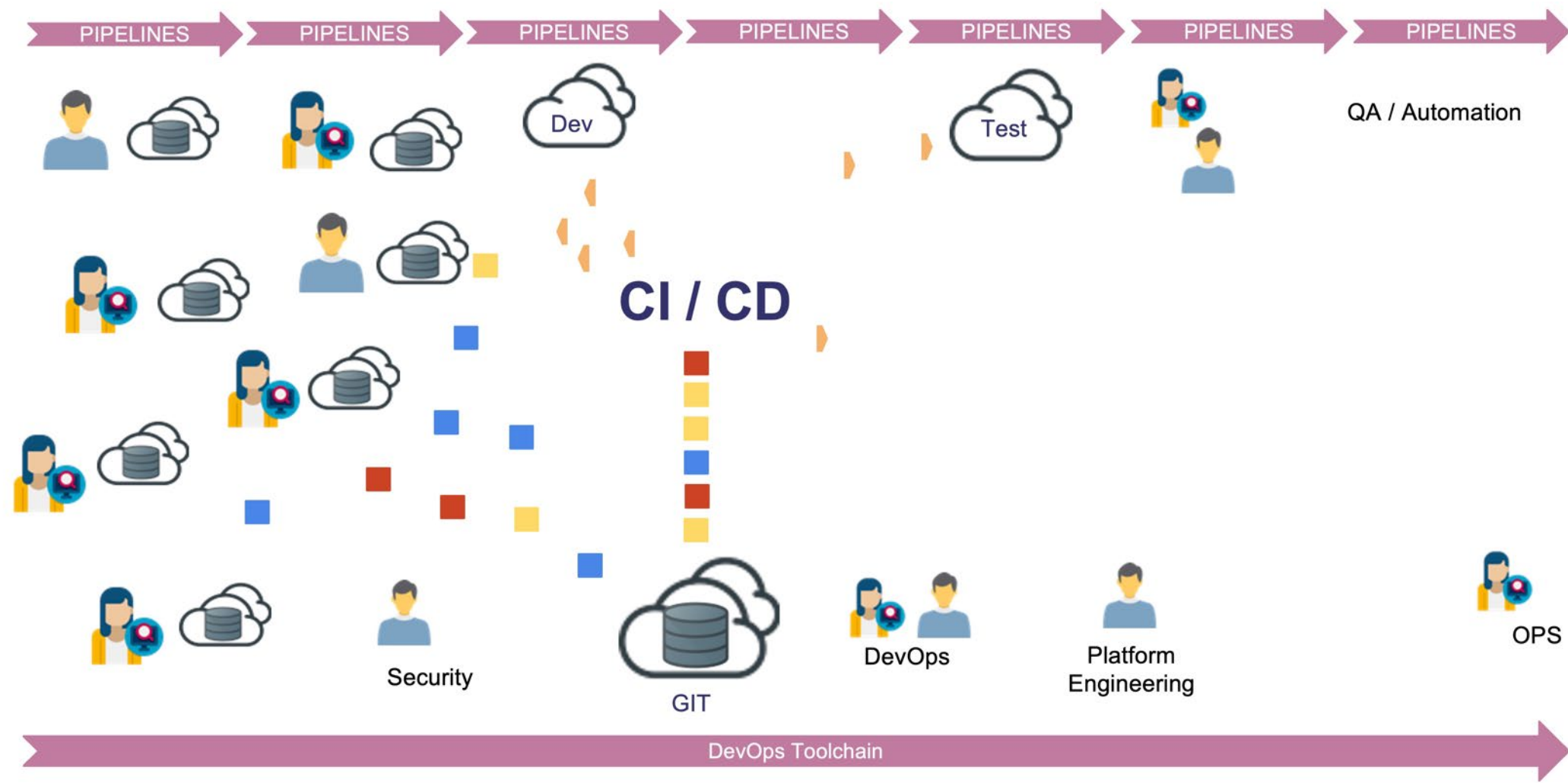


# DevOps

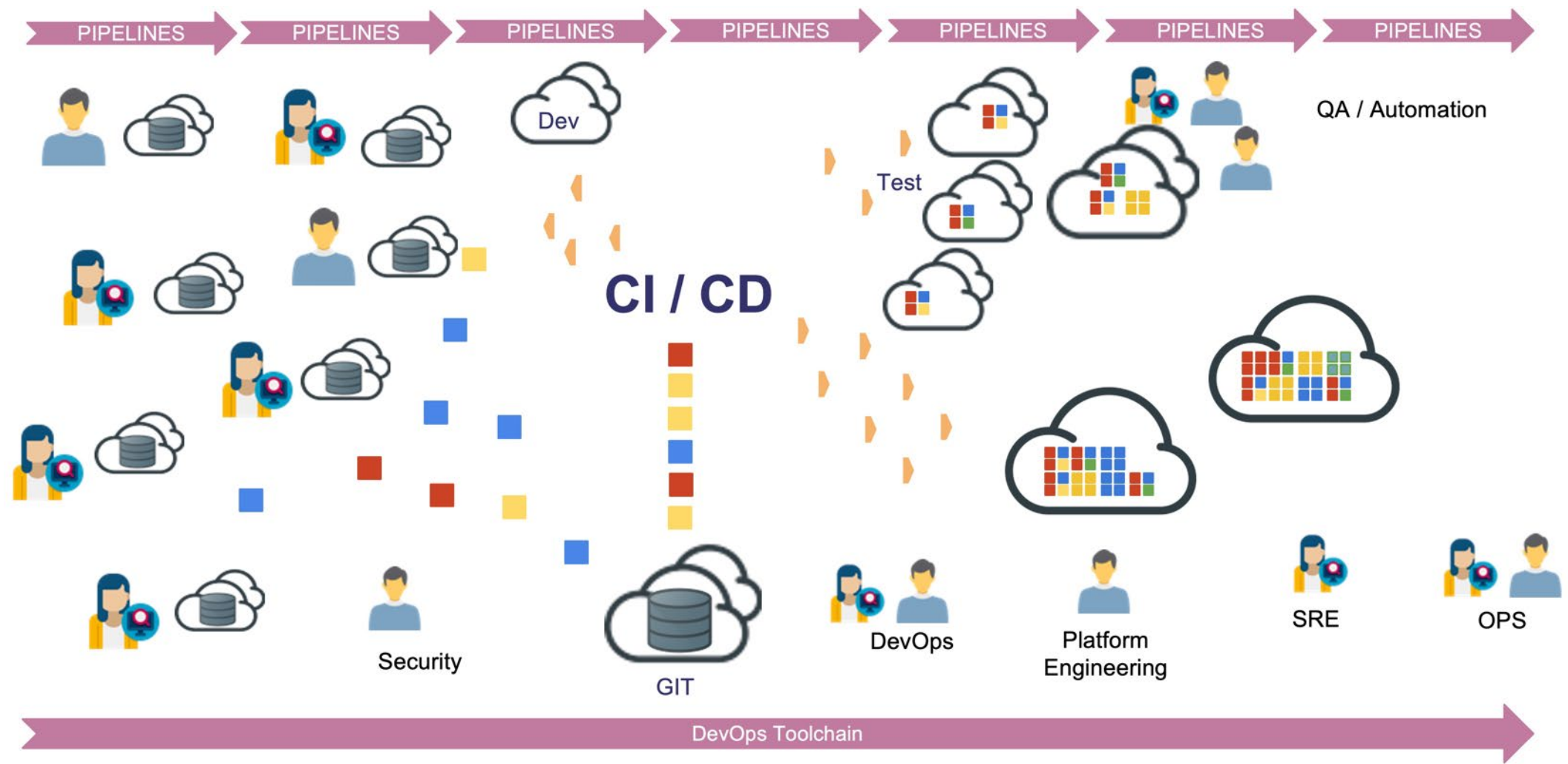
1. Plan
2. Code
3. Build
4. Test
5. Release
6. Deploy
7. Operate
8. Monitor



# DevOps In Practice



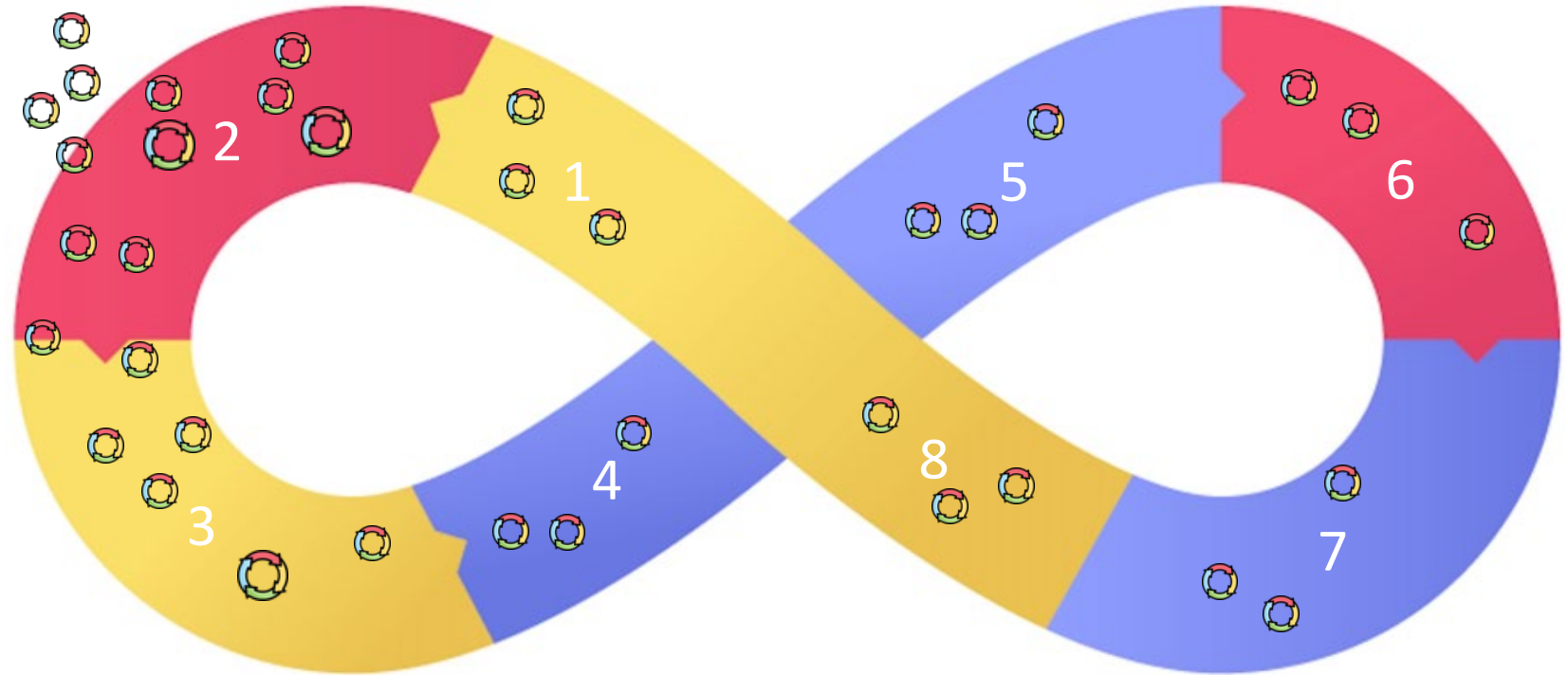
# DevOps In Practice



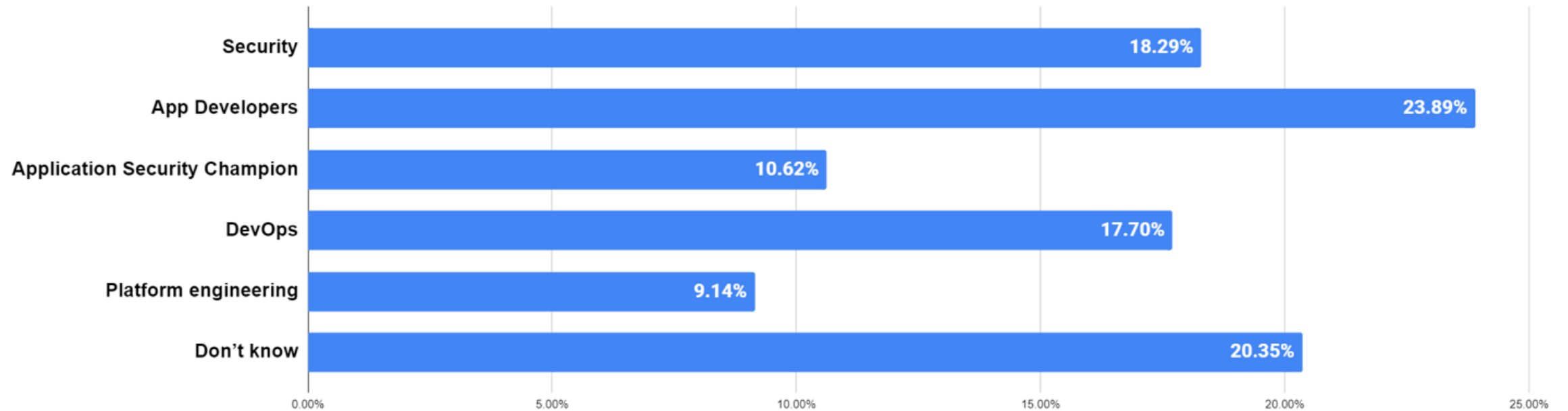
# DevOps

## Continuous Source of APIs

- API life cycle – creation through deprecation
- Open source
- Third-party/external packages, libraries
- SaaS applications
- Mobile
- Legacy apps
- Management, monitoring and performance
- Security
- Partners and customers

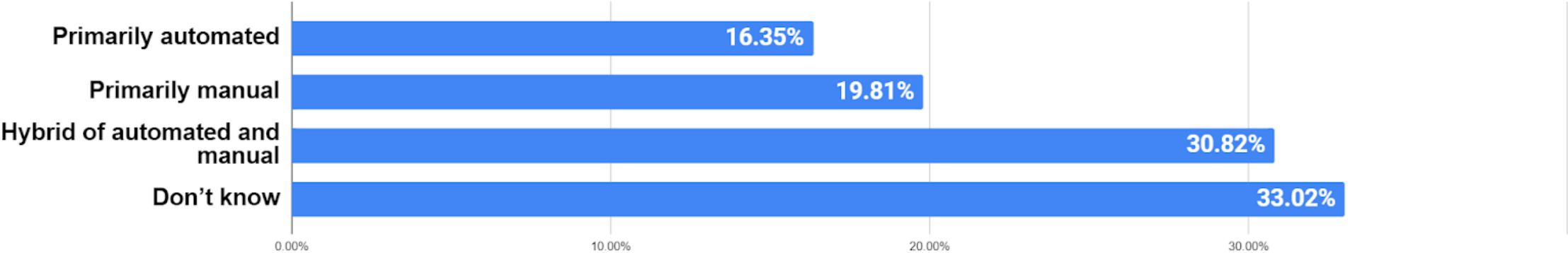


# Who is responsible for API security?

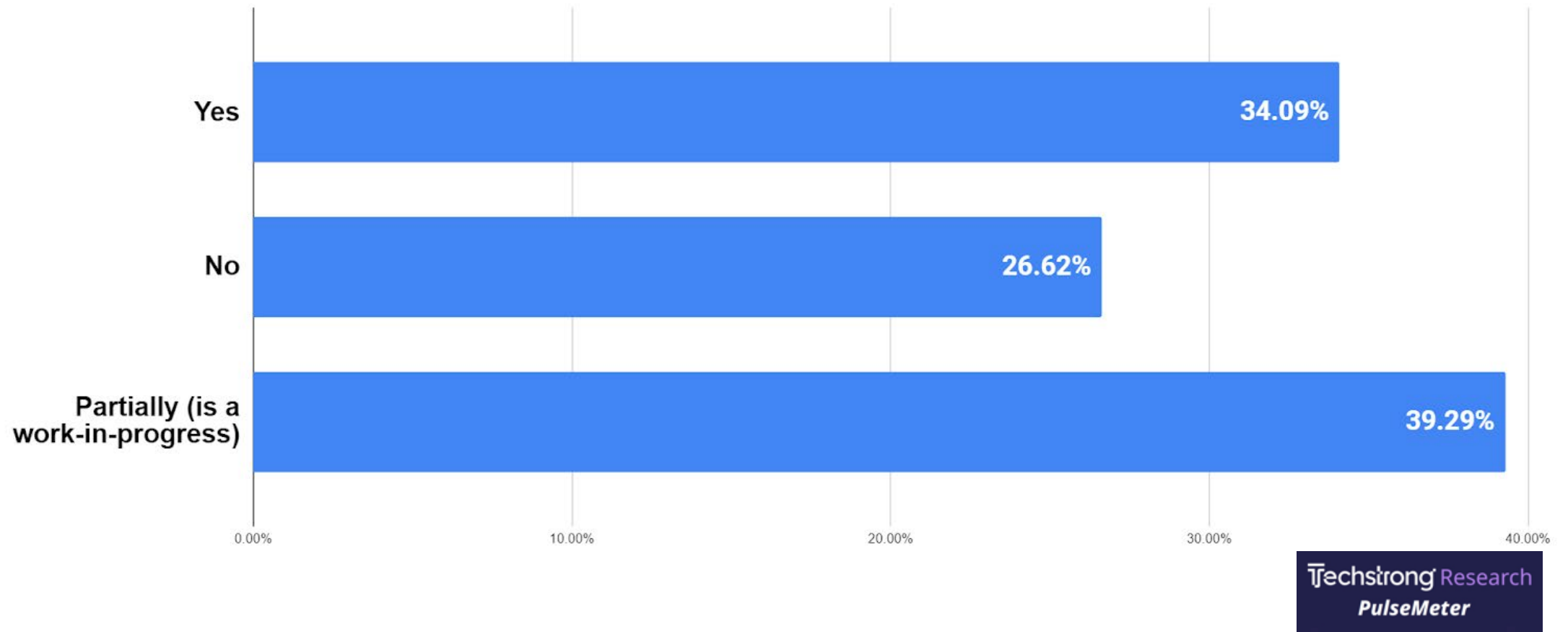


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# Is your API discovery...



# Is API security integrated into your DevOps processes?



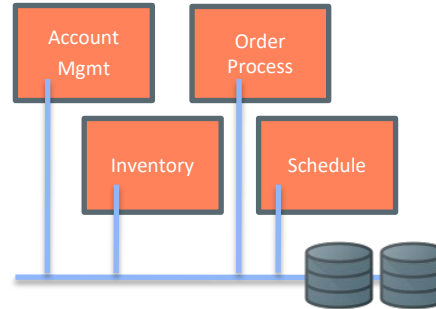


# Software Architecture



## Monolithic Architecture

- Single Tier
- Self Contained
- Non-Modular
- UI, Data, Logic



## Service Oriented Architecture (SOA)

- Functional Services
- Self-Contained Black Block
- Broker, Message Bus, Data Sharing Protocols



## Cloud-Native Architecture

- Containerized
- Microservices
- Service Mesh
- Orchestration
- Serverless
- Tracing

# Continuous API Management

## API Management

Lifecycle

- Create
- Publish
- Realize
- Maintain
- Retire

Use: Internal & External

Governance

Compliance

## API Security

Identity

Authentication

Authorization

Discovery

- Continuous vs Manual
- Directory, Catalog

Prevention

- API Gateway
- Rate Limit/Blocking

Testing

Analytics

## API Protocols

- RESTful
- GraphQL
- gRPC
- SOAP

Data Interchange

- JSON
- XML
- YAML

# API Economy

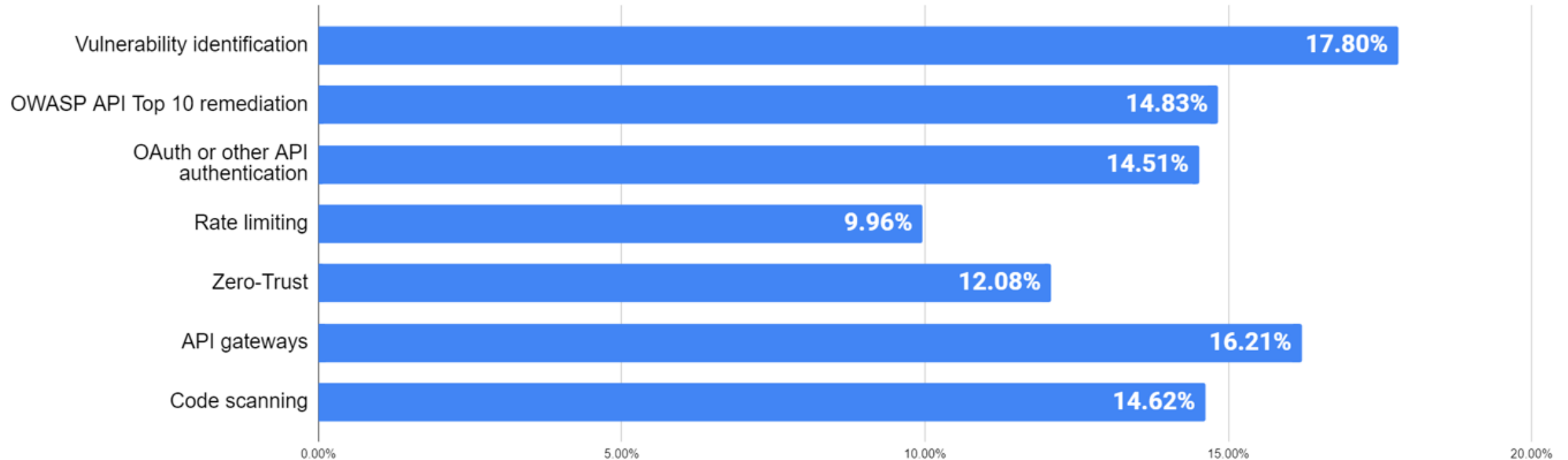
## API-First

- Equal importance
- Reusable
- Accessible
- Fabric of the design
- Product-centric approach (vs. integrations)
- Mobile, web, services, IoT

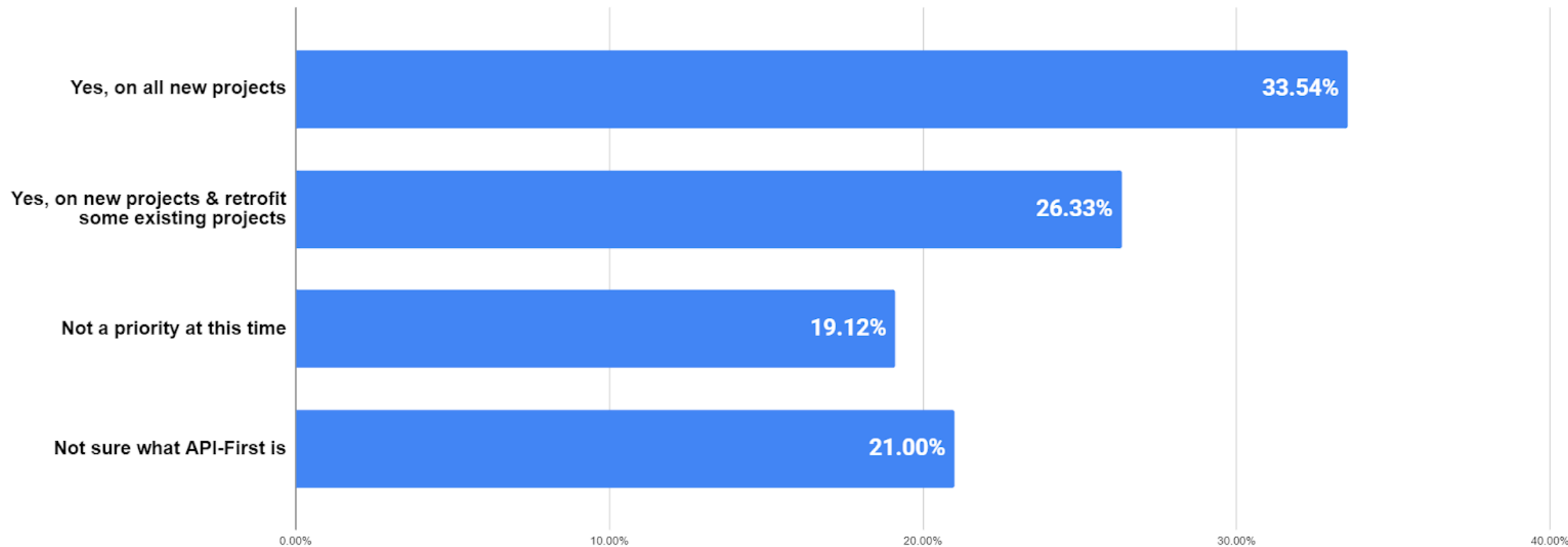
## API Product

- Domain or parallel offering
- Interface to [...] API, Portal, Mobile, etc.
- Consumption
- Monetization

# Which API security practices do you follow most?



# Do your software teams take an API-first approach?



# Summary – Today's Take Aways

- APIs are equals of code functionality
- APIs are no longer the ingress/egress boundary
- Cannot be managed like network protocols
- Software drivers are massive drivers (accelerators) for APIs
- API-First/Product put APIs at the forefront in design and delivery
- Manual discovery/documentation will never keep pace with software creation
- Accelerating pace requires automated discovery
- Essential API security integrated into DevOps/DevSecOps pipelines and toolchains

# Resources - TechstrongResearch.com





# Resources – Videos, Articles, Blogs and Events

Coming Soon!

**AppSec/API Virtual**

September 2022

[TechstrongEvents.com](https://TechstrongEvents.com)

# Techstrong

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