



REPORT

# The state of enterprise API maturity in 2024

Enterprises are bringing APIs to market. Lost APIs and insufficient governance are putting the brakes on their momentum.



## Executive summary

### APIs: they're not just tech widgets anymore

Decision-makers are truly beginning to grasp the power of APIs to transform their business.

Certainly, standardizing access and moving data to the cloud continue to be driving forces in developing APIs. But the promise of new revenue streams and accelerated business growth is also prompting a renewed effort to offer true digital products.

Organizations are openly serving up APIs of all kinds: whether exposed internally or externally, they're being hosted on-premises and in the cloud – and any combination in between. However, this increasing openness, combined with an uncontrolled proliferation of APIs, risks opening up enterprises to greater vulnerability.

To understand the scope of modern-day API maturity, Axway partnered with enterprise technology market research experts Vanson Bourne. We surveyed 600 senior IT and business decision-makers – a half-and-half split between the two – in the U.S., Brazil, France, Italy, U.K., Germany, Spain, Belgium and Netherlands.

The goal was to explore their organizations' maturity through the lens of four key areas: API governance, security, monetization, and productization.

The good news: Virtually all the enterprises say APIs are part of their go-to-market strategy. They are indeed stepping up APIs from technical interfaces to true digital products.

But the report also highlights how as APIs grow in adoption, so too does the challenge of managing these assets. Unmanaged APIs are the security risk many enterprises don't even know threatens to put the brakes on their hard-earned momentum.



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## 01

## Key findings



**Enterprises are embracing a variety of API styles and deployments**, with 27% of APIs being hosted in a multi-cloud setup. And they are doing so in pursuit of goals that go beyond data standardization or move-to-cloud initiatives. **Nearly half (47%) of decision-makers say they build APIs to create new revenue streams and improve business performance.**



**APIs are part of the go-to-market strategy for 99.5% of organizations.** Clearly, leaders understand the value of these digital assets and are treating them as products. **85% of the organizations have dedicated product managers for their key APIs.** 55% of enterprises say they are monetizing their APIs.



At the same time, **78% of enterprise decision-makers don't know how many APIs they have.** And 74% fully agreed that **more than 20% of their organization's APIs are unmanaged.**

Decision-makers are aware that their lack of accurate inventory is a real and present security risk. But they are struggling to get the visibility and control they need.



The lack of adequate visibility over assets is worsening with API proliferation. **95% of respondents agree that a centralized API catalog would improve the governance of APIs.** This could help tighten up organizations' security posture, and in the meantime speed up their business growth.



Meanwhile, **46% of decision-makers say they need stronger alignment between IT and line-of-business** to reach common success with API programs.

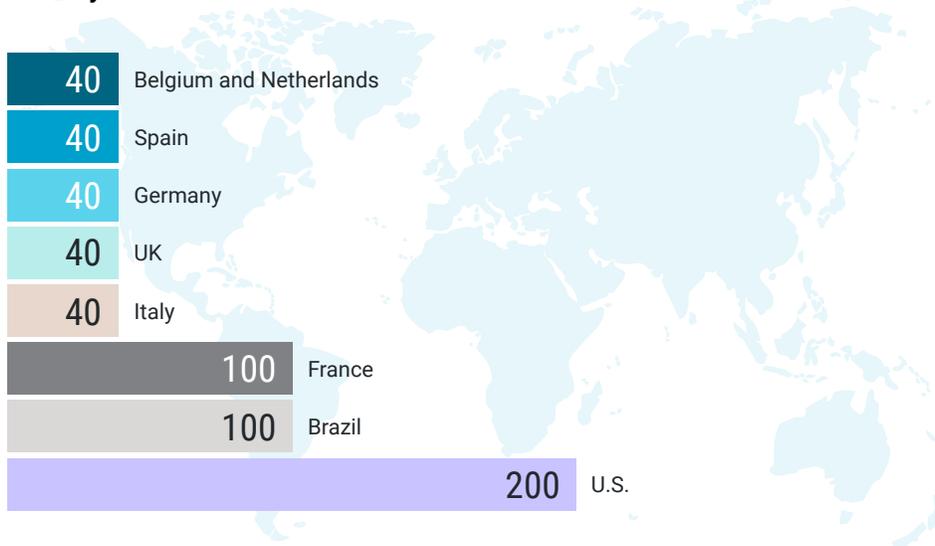
This report will dive deeper into the survey's key findings and draw out important facts and figures. By analyzing the current state of enterprise API strategy, this study will give you the information you need to evaluate your own API maturity. It also offers data-driven suggestions on how to carve a path forward, given the challenges and opportunities every enterprise faces.

## 02

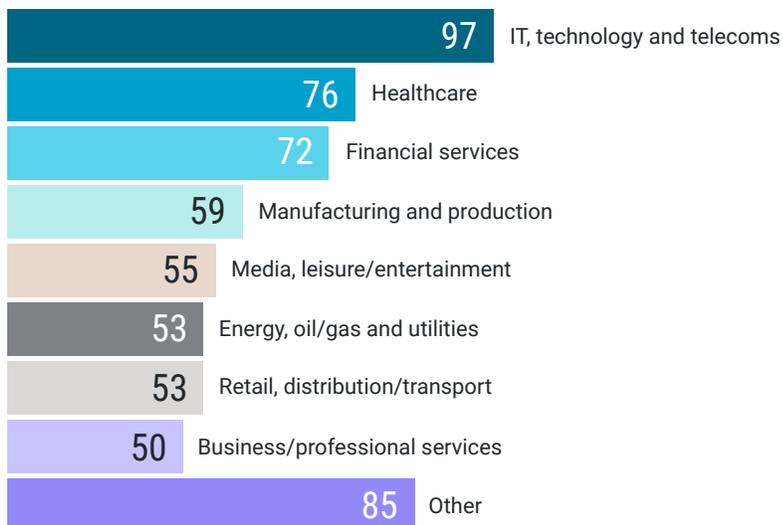
## Demographic overview

Throughout May and June of 2024, Vanson Bourne carried out a global survey, sponsored by Axway, to look into the current state of API maturity and strategy among enterprises representing a variety of industry sectors. The survey included 600 line-of-business and IT decision-makers categorized by country and industry.

### Country



### Organizational Sector



Areas of responsibility for those surveyed include API product business unit leaders, API integration specialists, CIO/CTOs, and a smattering of more technical roles ranging from DevOps, IT generalists, software devs, data and analytics, to enterprise architects or applications specialists.

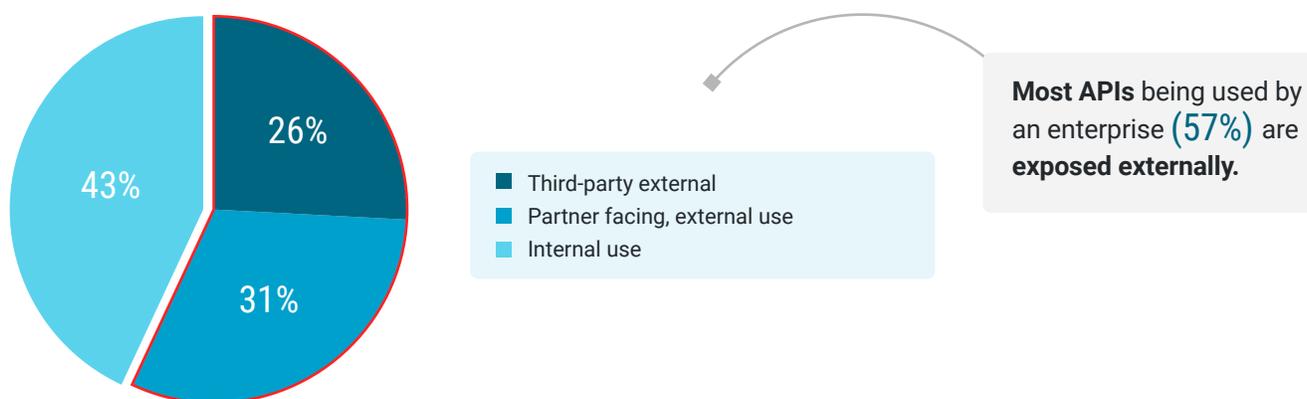
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## Enterprises are embracing a variety of API styles and deployment patterns

Most companies began their API journeys by building a few APIs to expose a data set internally. Now organizations are starting to open their ecosystems and expose APIs to external audiences.

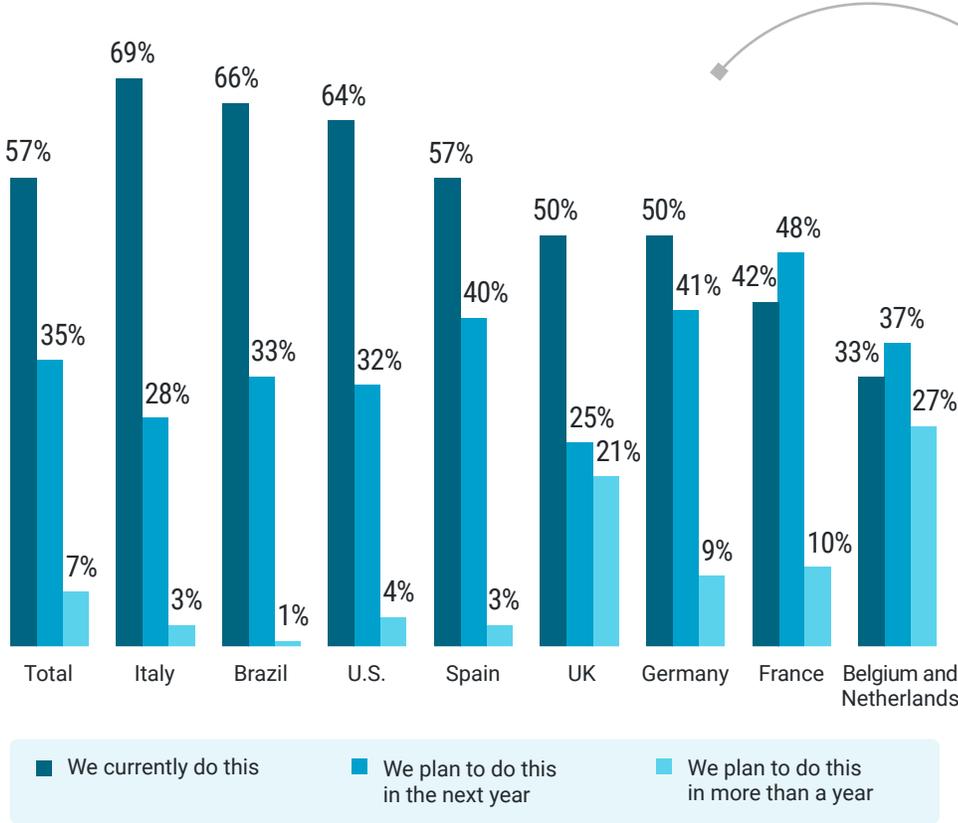
But as they've developed a rich set of digital assets, many failed to fully anticipate issues of API duplication, security, and governance in a multi-cloud deployment. The API landscape is shifting fast.

### Proportion of APIs being used in different environments



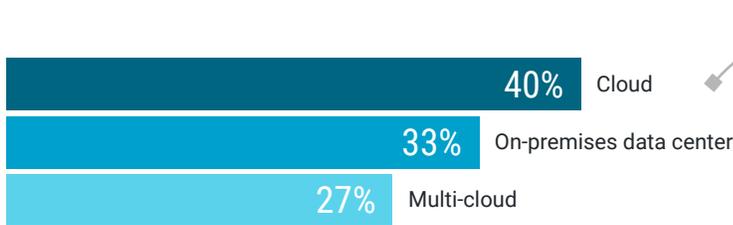
While internally built APIs remain the largest single category, partner-facing/external APIs and third-party APIs (i.e., APIs that are hosted by an external party but called by the enterprise's teams) **combine to form a majority of assets in use that are exposed outside of the enterprise perimeter.**

### Digital products' external exposure by country



Italian enterprises are aggressively exposing APIs externally, while France, Belgium, and the Netherlands lag with a more cautious approach, expressing plans to do so in the next year.

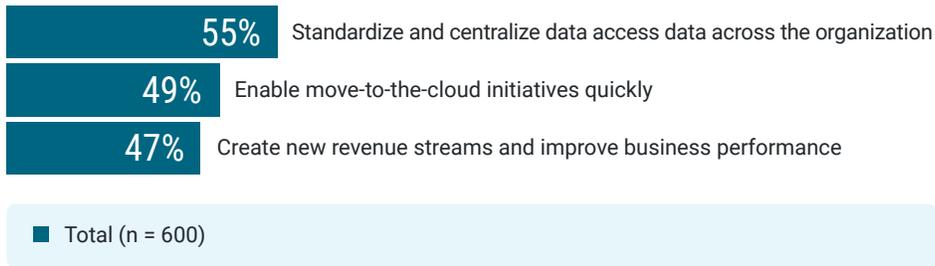
### Proportion of current deployment/hosting model in each environment



Close to 1/3 of APIs today are hosted in a multi-cloud deployment.

Most enterprises are deploying APIs in the cloud – whether a single cloud or distributed through multiple clouds.

## Driving factors for building an API



Standardizing and centralizing data access across the organization remains the primary driving force in developing APIs. And because APIs make it easy to move on-premises apps into the cloud, move-to-cloud initiatives are also an important factor in the growth of APIs.

**But for nearly half (47%) of the decision-makers surveyed, creating new revenue streams and improving business performance are also top-of-mind when deciding to build an API.**

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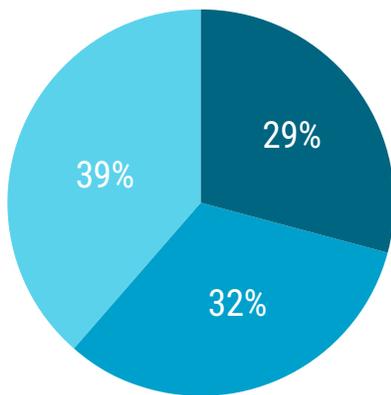
## Organizations face significant governance gaps as they tackle complexity

78% of respondents **don't know how many APIs their organization has** in its IT ecosystem



Organizations may be developing and using many APIs, but they also face significant hurdles when it comes to visibility over their ecosystem. Consider, for example, who is managing all these APIs, or *how* the inventory of APIs is being cataloged and maintained.

### Ratio of managed APIs being managed by:

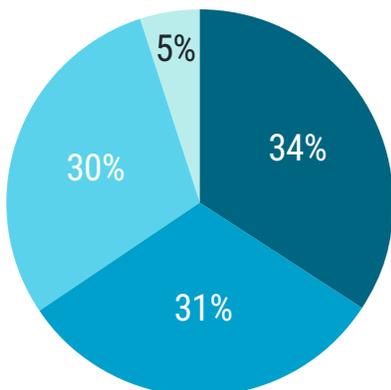


- External vendor(s) or partner
- Centralized operations team
- Internal development teams

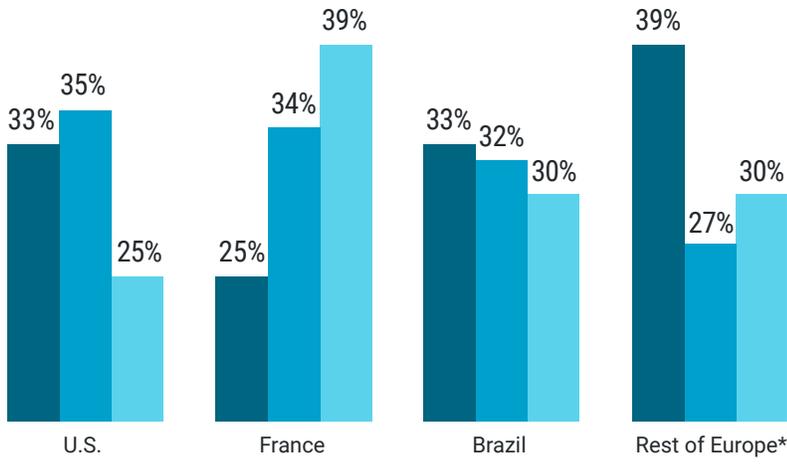
Only **1/3** of APIs are being **managed by a centralized operations team.**

The rest are left to individual internal teams or managed by external parties.

### Methods for cataloging or maintaining records of registered APIs



- Automated methods only (e.g., as a part of CI/CD pipeline)
- Manual and automated methods
- Manual methods only (e.g., updating a common portal)
- My organization struggles to keep a single registry of its APIs



■ Automated method only
 ■ Manual and automated methods
 ■ Manual method only

\*Germany, Belgium and Netherlands, UK, Spain, Italy

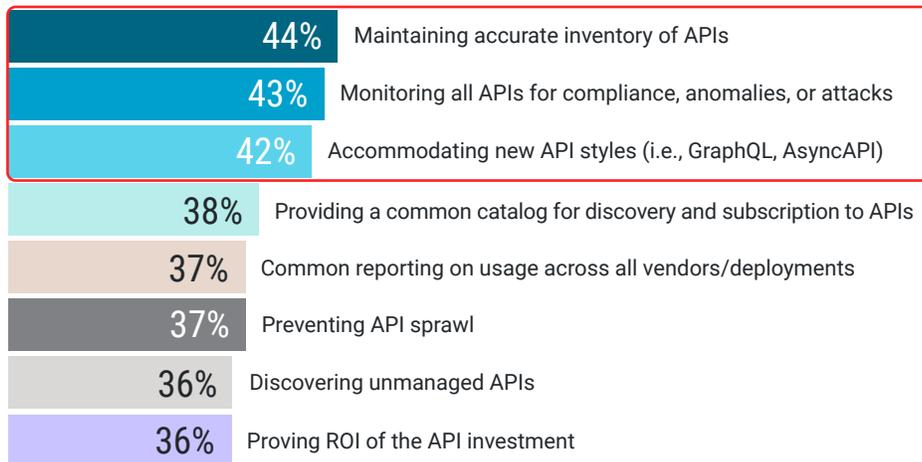
There was clear consensus on how they could gain better oversight of these APIs:

**95%** agree that a **centralized API catalog** would improve the **governance** of APIs



The question of API governance is difficult to disentangle from security, productization, and even monetization. This relationship becomes apparent when you consider the respondents' answers to the following question:

**What challenges does your organization face with governance of its API assets?**



**Top 3 API governance challenges:**

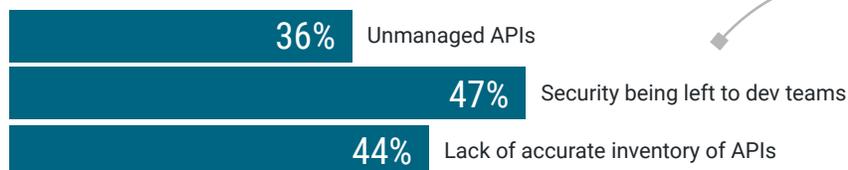
- Maintaining accurate inventory of APIs
- Monitoring all APIs for compliance, anomalies, or attacks
- Accommodating new API styles

05

## As APIs proliferate, poor oversight leads to major security risks

Insufficient visibility over the API stack can expose an organization to monitoring and governance issues.

### Biggest security risk posed to organizations from API use



Most decision-makers feel the **greatest security risk** to their organizations from API use is **security being left to dev teams**.

IT decision-makers are especially concerned about the lack of accurate API inventory (46% vs. 42% for business leaders), but both have some awareness that unknown risks lurk.

Other vulnerabilities enterprises face include:

- different security configurations for internal vs. external APIs (46%)
- unrestricted resource consumption (i.e., DoS attacks – 43%)
- inadequate access and authorization controls (41%)
- lack of common security policy enforcement for APIs (37%)

Without central governance, enterprises find themselves relying on the capacity of their internal dev teams. And that's just for the APIs they know about and are managing.

**74%** report that **more than 20% of their organization's APIs are unmanaged**



These decision-makers recognize that a complete and accurate inventory is essential to reduce exposure to security risks.

87% agree that blind spots such as 'Zombie' and 'Shadow' APIs are key security threats



## Understanding "Lost APIs"

**Zombie API:** an API that is outdated, no longer supported, or has been deprecated but is still in use by some systems or applications.

**Shadow API:** an API that is being used, but is neither known, secured with a gateway, cataloged, nor managed by the enterprise.

**Legacy API:** officially deprecated or superseded by newer versions or alternative solutions, but still in use by some applications or systems.

All these lost APIs might lack updates, bug fixes, or security patches, posing potential risks to systems that continue to rely on them. They can also create compatibility issues and hinder the development of newer, more efficient solutions.

[Read the blog to learn more](#) →

A rapid expansion in APIs could help explain why so many respondents don't know how many APIs they have, especially without an accurate inventory to keep track. Almost all those surveyed (98%) anticipate the number of APIs used by their organization to increase over the next 12 months.

In addition to the growing numbers, the introduction of new types of APIs (such as GraphQL and AsyncAPI) is likely to add to the challenge.

In the face of ever-present security risks, such rapid growth makes the need for a comprehensive, centralized, and automated inventory increasingly urgent.

Almost all those surveyed (98%) anticipate the number of APIs used by their organization to increase over the next 12 months.

06

## Treating APIs as products is key to success

Companies build and use APIs for many reasons: driving digitalization, standardizing their data, hastening partner onboarding, and improving the customer experience, for example.

The survey findings show enterprises are treating APIs as products – not just technical interfaces. And they are integrating API products into their go-to-market strategy.

80% of organizations offer digital products



57% are exposing digital products externally



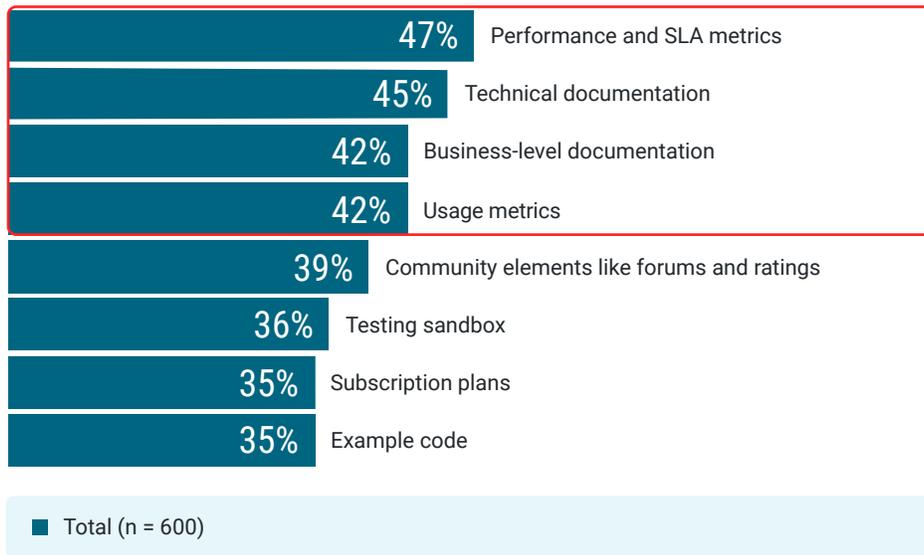
It is clear that decision-makers see treating APIs as products as the path to follow for an integrated digital strategy. To wit:

85% of organizations have dedicated product managers for their key APIs



What, precisely, constitutes an API product? Survey respondents consider that performance metrics and business/technical documentation enable an API product to be effective.

**What capabilities do you think should be included for an effective API product?**

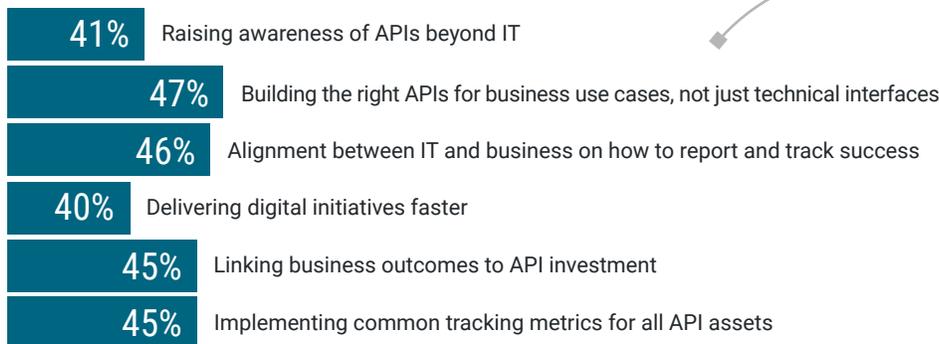


**Top elements to include in an API product:**

- Performance and SLA metrics
- Technical and business documentation
- Usage metrics

API producers need to know the quality of their APIs (performance and SLA metrics) and how they are being employed (usage metrics), and API consumers need to know how (technical documentation) – and why (business-level documentation) – to use them.

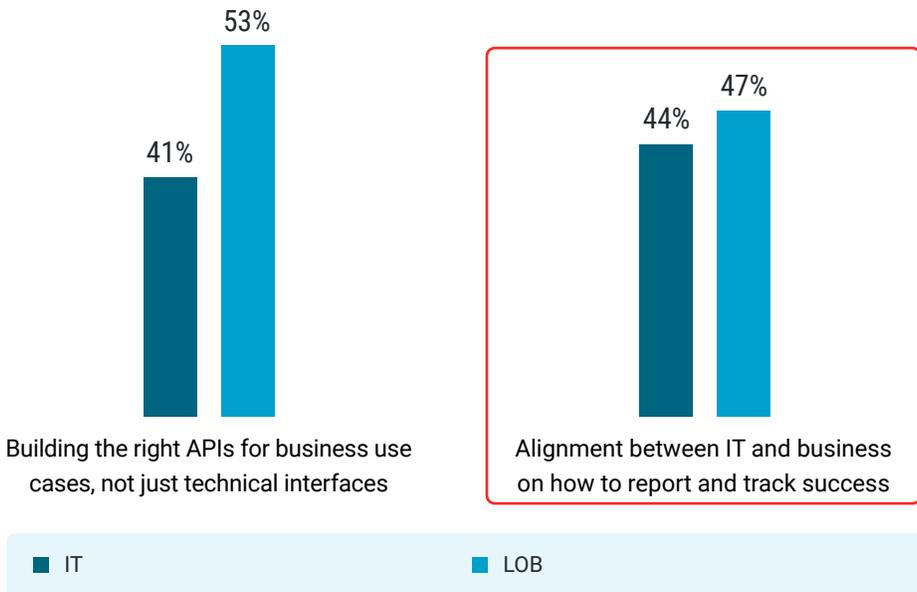
**What challenges does your organization face with tracking and measuring API metrics?**



**47% ranked building the right APIs for business use cases as the top challenge with tracking and measuring API metrics.**

Respondents consider **building the right APIs for business use cases** to be the top overall challenge with tracking and measuring API metrics. However, this is immediately followed by agreement – from both parties – that there is insufficient **alignment between IT and line of business on how to report and track API success**.

Alignment between these two teams will be essential to reach common success with API programs.



07

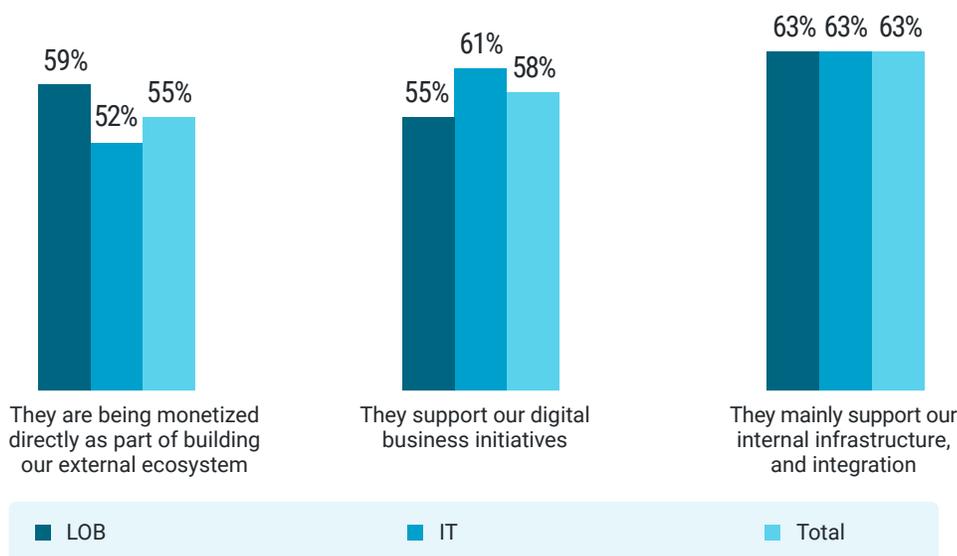
## API monetization is already a part of go-to-market strategy

55% of organizations are monetizing APIs as part of their GTM strategy



Given the driving factors for building an API seen previously in this survey, it is unsurprising that APIs continue to mainly support internal infrastructure and integration. However, a growing number of enterprises are building robust external ecosystems with their APIs.

### How are APIs a part of your Go-to-Market business model/strategy?



API monetization is useful to organizations internally as well: **22% of organizations are using chargeback for internal development.**

Whether supporting internal or external initiatives, APIs must be easily accessible in order to be merchandized, delivered to developers, and monetized.

As noted earlier in this survey, nearly **half of decision-makers agreed they needed stronger alignment between IT and line-of-business** to reach common success with API programs.

Enterprises will be more successful at building up these external ecosystems when drawing from the wealth of APIs they've already built across their enterprise through centralized governance.

## Comparing API monetization models

API monetization can take many different forms. Enterprises are using a combination of models to charge directly for their APIs. The most-used is **value-based pricing (57%)**, followed by **pay-as-you-go usage pricing (54%)** and **freemium and tiered pricing (50%)**.



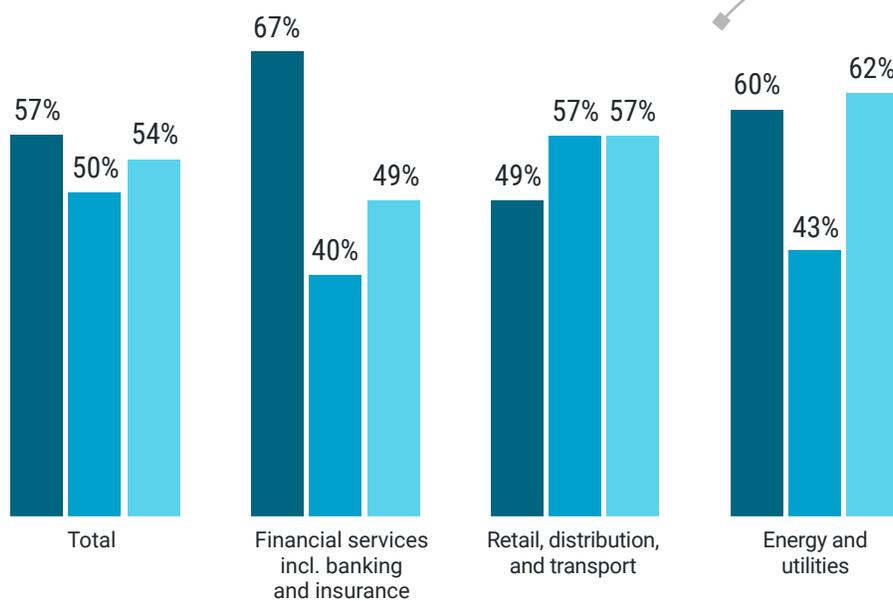
### API monetization models

**Value-based pricing** quantifies the value of APIs and sets the pricing based on the perceived value they provide to the customers.

**Pay-as-you-go usage pricing** involves billing customers based on their actual usage of the APIs, typically by the number of API transactions or the amount of resources consumed.

**Freemium and tiered pricing** is a combination of free and paid tiers. The free tier provides limited access to the APIs, allowing customers to try them out. Paid tiers then offer additional features, higher usage limits, or premium support.

Some interesting trends arise when looking at API monetization by geography and industry.



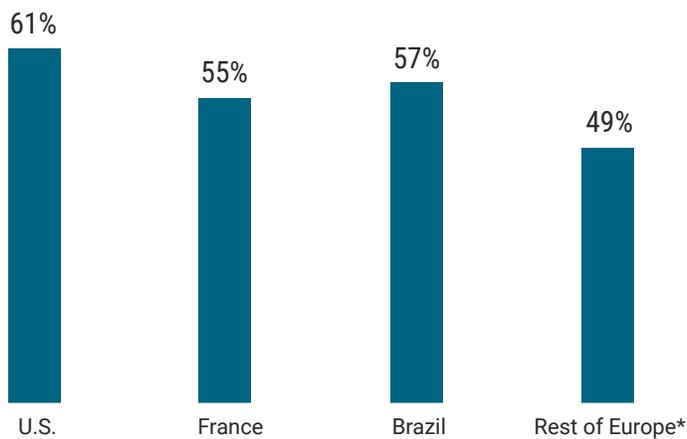
The financial services industry is more inclined to use value-based pricing the most, with energy and utilities generally prioritizing pay-as-you-go usage pricing.

■ Value-based pricing

■ Pay-as-you-go usage pricing

■ Freemium and tiered pricing

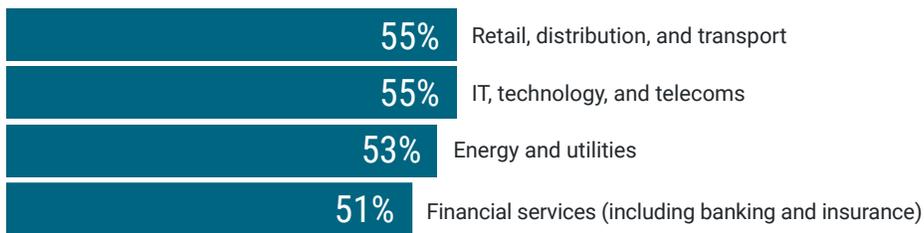
### Direct monetization by geography



The U.S. leads direct API monetization, followed closely by Brazil.

■ APIs are monetized directly to build an external ecosystem  
 \*Germany, Belgium and Netherlands, UK, Spain, Italy

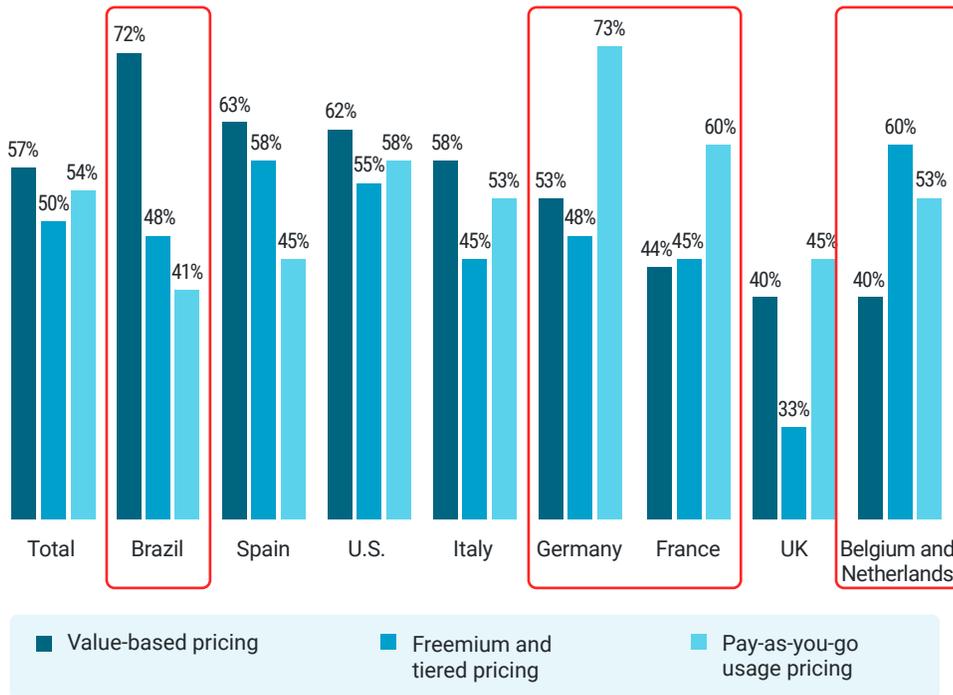
### Direct monetization by industry



Retail distribution and transport and IT, tech and telecoms are the industries that most leverage direct API monetization to build an external ecosystem.

■ APIs are monetized directly to build an external ecosystem

## Pricing plans used to monetize APIs – by country



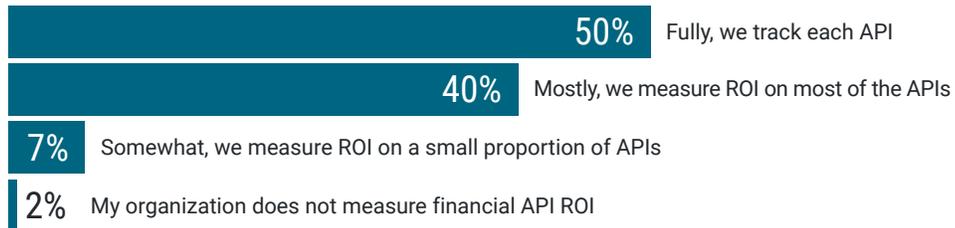
France and Germany especially rely more heavily on pay-as-you-go usage pricing, whereas Brazil leads in value-based API pricing – perhaps in part reflecting regulatory requirements in those countries.

This survey shows many modern-day enterprises are treating APIs as products. And every product has a price. The difference between a technical API and a digital product is that the latter requires its own packaging, marketing, and pricing strategy.

As organizations begin to more consistently explore monetization, they can accelerate digital initiatives by making the valuable products they are building easier to find and use.

And with any monetization model, the ability to quantify and qualify ROI (return on investment) of an API program is essential.

## To what extent does your organization measure financial ROI on its APIs?



50% of organizations measure ROI on every API.

Organizations are making ROI an important part of their API strategy. However, half of organizations **don't fully track ROI**.

With the difficulties organizations are experiencing creating an accurate total of their APIs and monitoring for security and other risks, difficulty in tracking ROI is not surprising. And if organizations are unable to monitor ROI, this may make it harder to gain traction for investment in APIs within their organization.

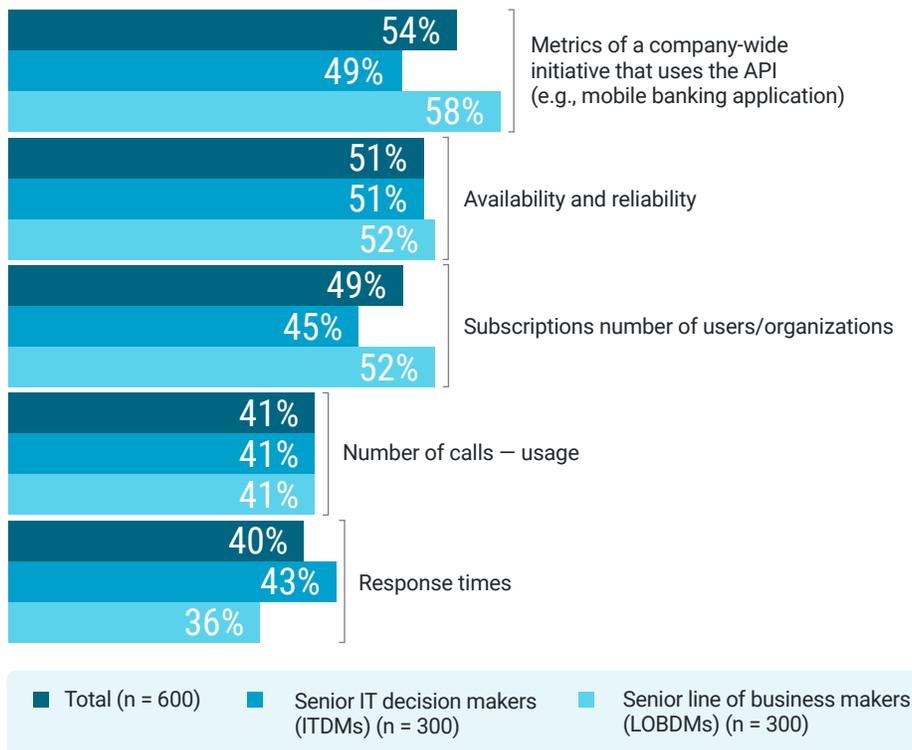
## Understanding how enterprises calculate the ROI of API programs

Metrics surrounding API quality, consistency, security, and compliance are key to maximizing the value of APIs to their organization.

There are many ways enterprises can calculate the ROI of their APIs, and these methods are also likely to differ based on an organization's goals for their APIs.

As a whole, decision-makers prefer to use metrics of a company-wide initiative that uses the API (such as a mobile banking application, for example) as the primary way to measure ROI (54%).

## Which metrics do organizations use to measure ROI of APIs?



**Company-wide initiatives** are measured through a more complex set of metrics that help give a comprehensive view of how the API-driven initiative is performing and its overall impact on the business.

To aggregate this sort of information and make data-driven decisions regarding the program, enterprises require full visibility into every element of the API product(s) being leveraged.

Tracking these metrics can provide actionable insights to optimize and justify the investment in the API.

Other important metrics measure API adoption (number of users, number of calls, i.e., consumption) and more technical, qualitative measures like availability and reliability or response times.

A role breakdown reveals telling differences in how LOB and IT approach ROI.

- **Initiative metrics** are deemed more important for LOBs, who naturally have a greater focus on revenue and business performance as part of their role.
- Meanwhile, IT decision-makers are more likely to focus on **performance measures** such as availability and reliability or response times.

Both business and technical performance metrics are important. Both sides (IT and LOB) need the tools to accurately measure ROI, and ensuring alignment on how an API's success will be determined is crucial to ensuring APIs are being developed correctly to meet those goals.

## What is your enterprise's API maturity?

The findings from this survey are encouraging, considering that APIs are part of the GTM strategy for 99.5% of organizations. Decision-makers are stepping up APIs from technical interfaces to digital products. These need to include business descriptions, documentation, and pricing plans.



85% of organizations are on the right track with dedicated product managers for their key APIs, but these API product managers still face key challenges around productization and monetization.



Meanwhile, the security risk of unknown and unmanaged APIs represents a major vulnerability. 95% of decision-makers know that a centralized catalog can help, but they haven't been able to bring these elements together.



The lack of a reliable inventory means organizations can't govern or secure all their APIs — a problem that is only likely to grow as the number of APIs increases and new API types are introduced.



What's more, nearly half of decision-makers feel they lack essential alignment between line of business and IT. Companies need a combination of vendor expertise and proven solutions.

[Amplify Enterprise Marketplace](#) brings business and IT together based on business outcomes and offers common metrics for all API products regardless of type, deployment, or platform.

And with a [federated API management platform](#), you can enable a centralized operation team. We'll help you overcome the challenge of securing and managing *all* your APIs in one place by enabling the full visibility and control needed to reduce your organization's risk.

As you expand your digital product strategy through monetization, Axway is invested in your success. We provide the expertise and guidance you need to bridge the IT-business gap and extract maximum value from your API investments.

### About Vanson Bourne

Vanson Bourne is an independent specialist in market research for the technology sector. Their reputation for robust and credible research-based analysis is founded upon rigorous research principles and their ability to seek the opinions of senior decision-makers across technical and business functions, in all business sectors and all major markets.

For more information, visit [vansonbourne.com](https://vansonbourne.com) →

### What is your API maturity level?

[Take the 6-minute assessment to get started on your next step](#) →