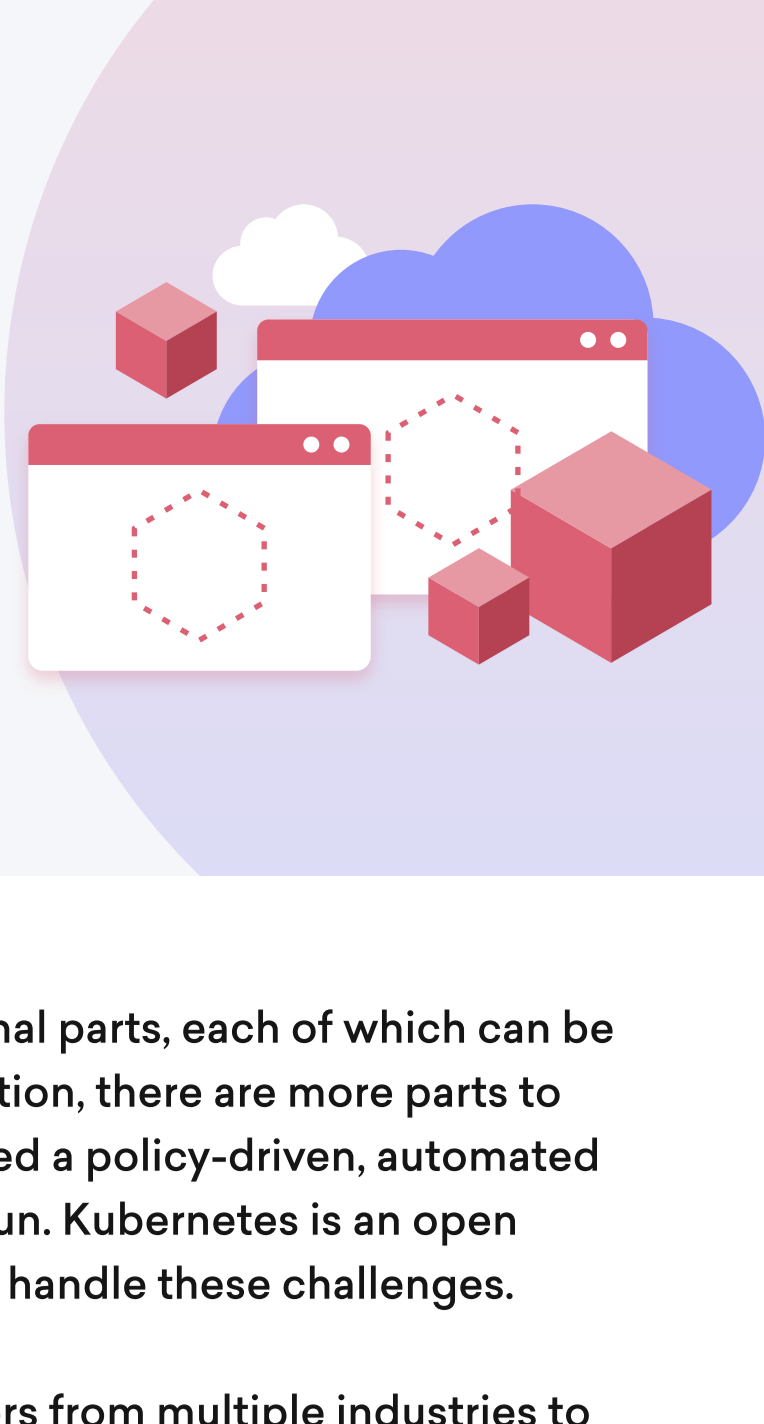


# State of workloads adoption on containers on Kubernetes



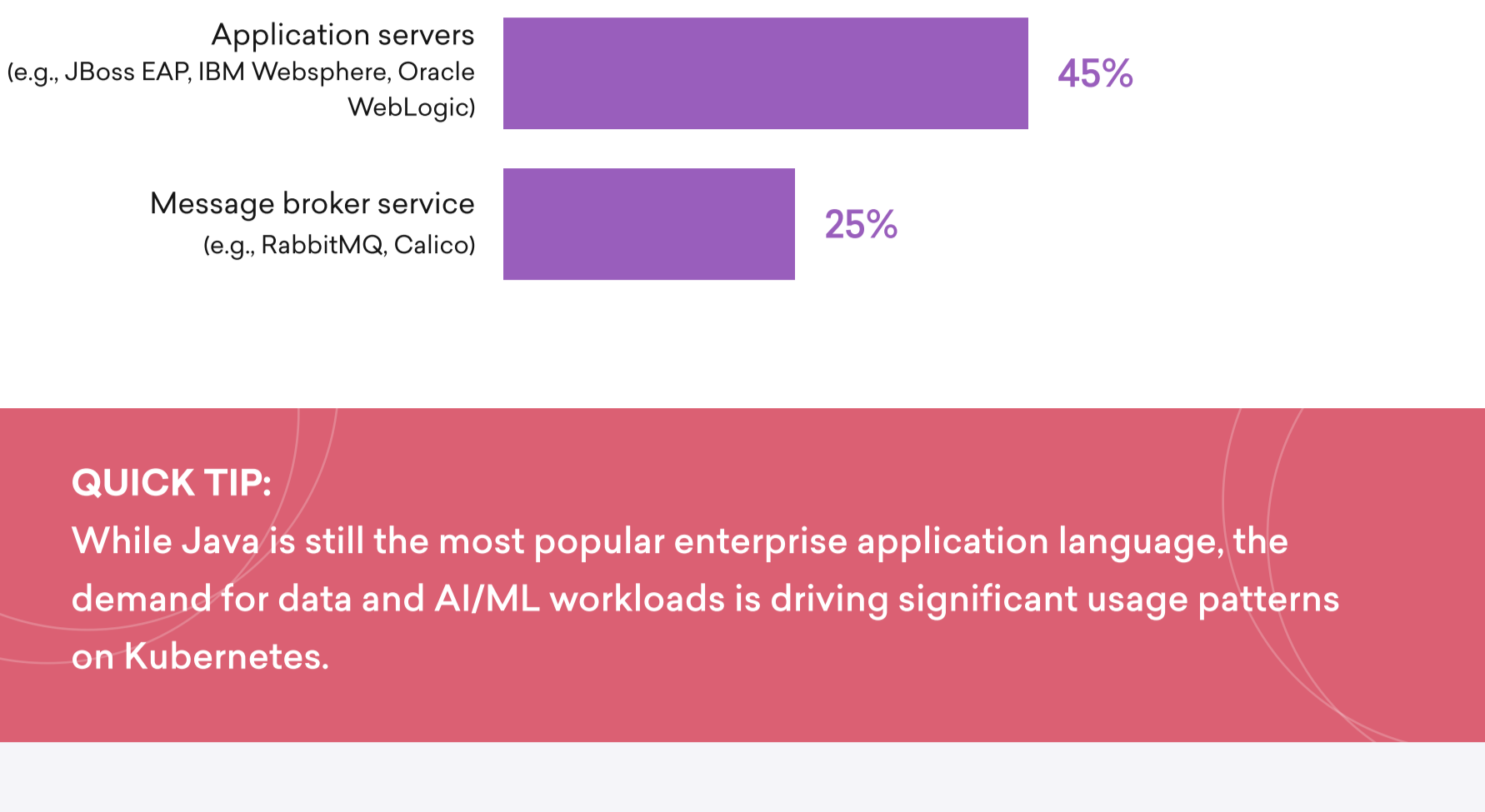
Applications are increasingly built as discrete functional parts, each of which can be delivered as a container. That means for every application, there are more parts to manage. To handle this complexity at scale, teams need a policy-driven, automated solution that dictates how and where containers will run. Kubernetes is an open source, extensible container orchestrator designed to handle these challenges.

Pulse and Red Hat surveyed 200 enterprise tech leaders from multiple industries to find out what workloads they are deploying on containers and Kubernetes, and how and why they are deploying those workloads across hybrid and multi-clouds, including the usage of Kubernetes Operators and Helm charts to help achieve key business goals and objectives.

Data collection: April 24 - June 3 and August 23 - September 28, 2021  
 Respondents: 200 enterprise tech leaders using containers and Kubernetes

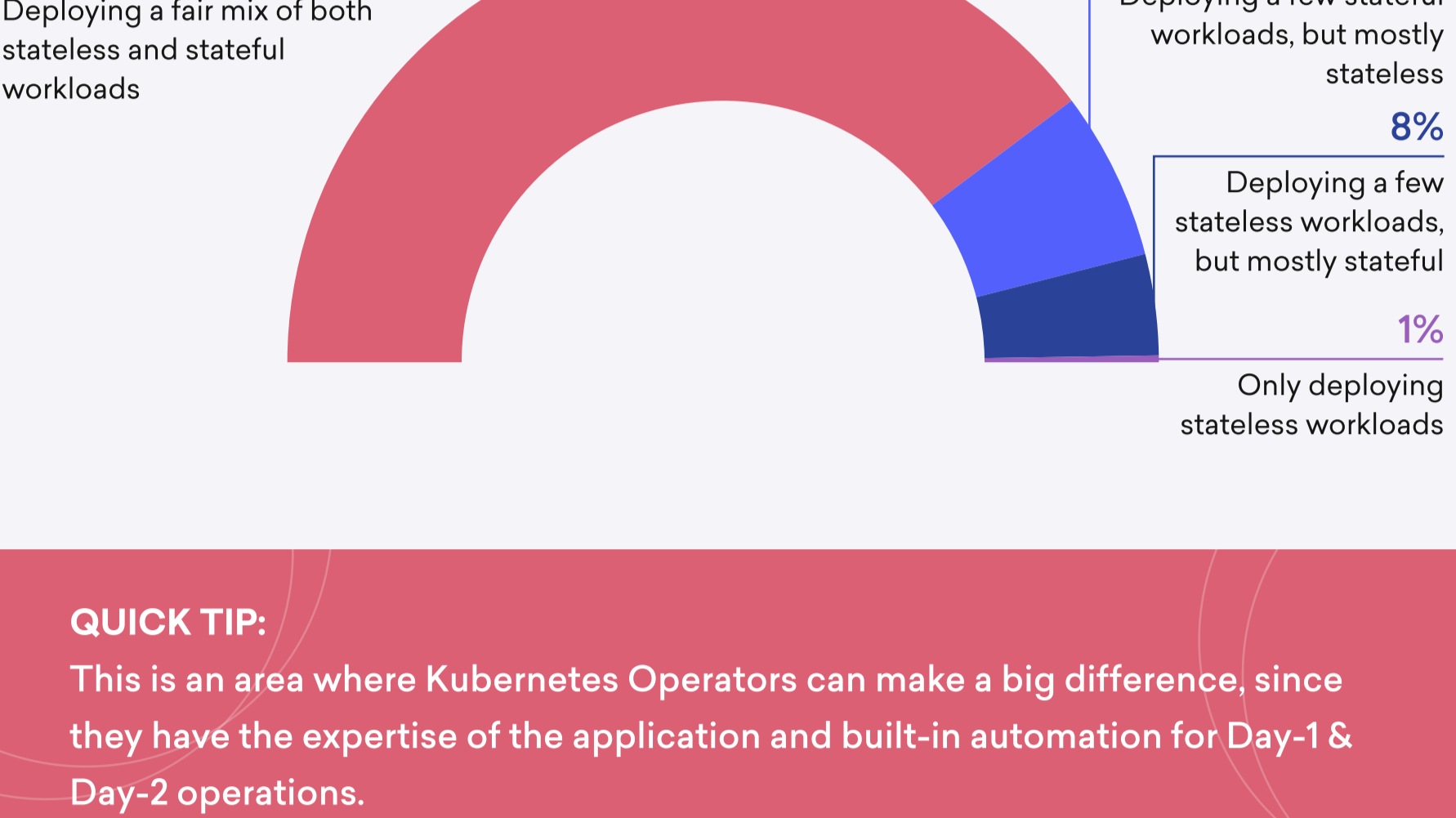
## Tech leaders are deploying a wide variety of mission-critical workloads on Kubernetes and reaping the benefits

The top workloads tech leaders are deploying on Kubernetes are databases or data caching solutions (76%), AI/ML software (65%), and web servers (59%).



**QUICK TIP:** While Java is still the most popular enterprise application language, the demand for data and AI/ML workloads is driving significant usage patterns on Kubernetes.

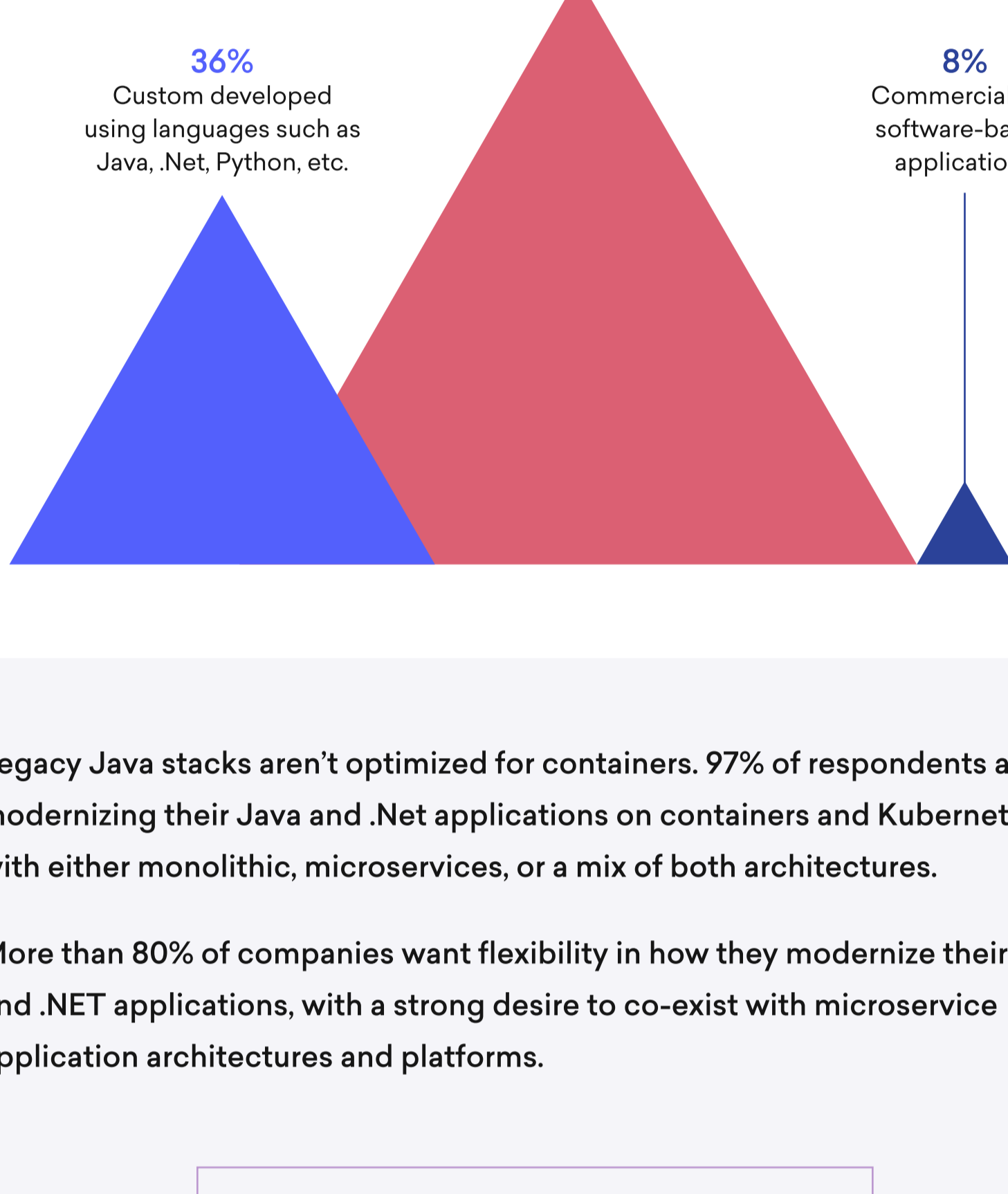
A vast majority of tech leaders (80%) are deploying or planning to deploy a fair mix of both stateless and stateful workloads on containers and Kubernetes.



**QUICK TIP:** This is an area where Kubernetes Operators can make a big difference, since they have the expertise of the application and built-in automation for Day-1 & Day-2 operations.

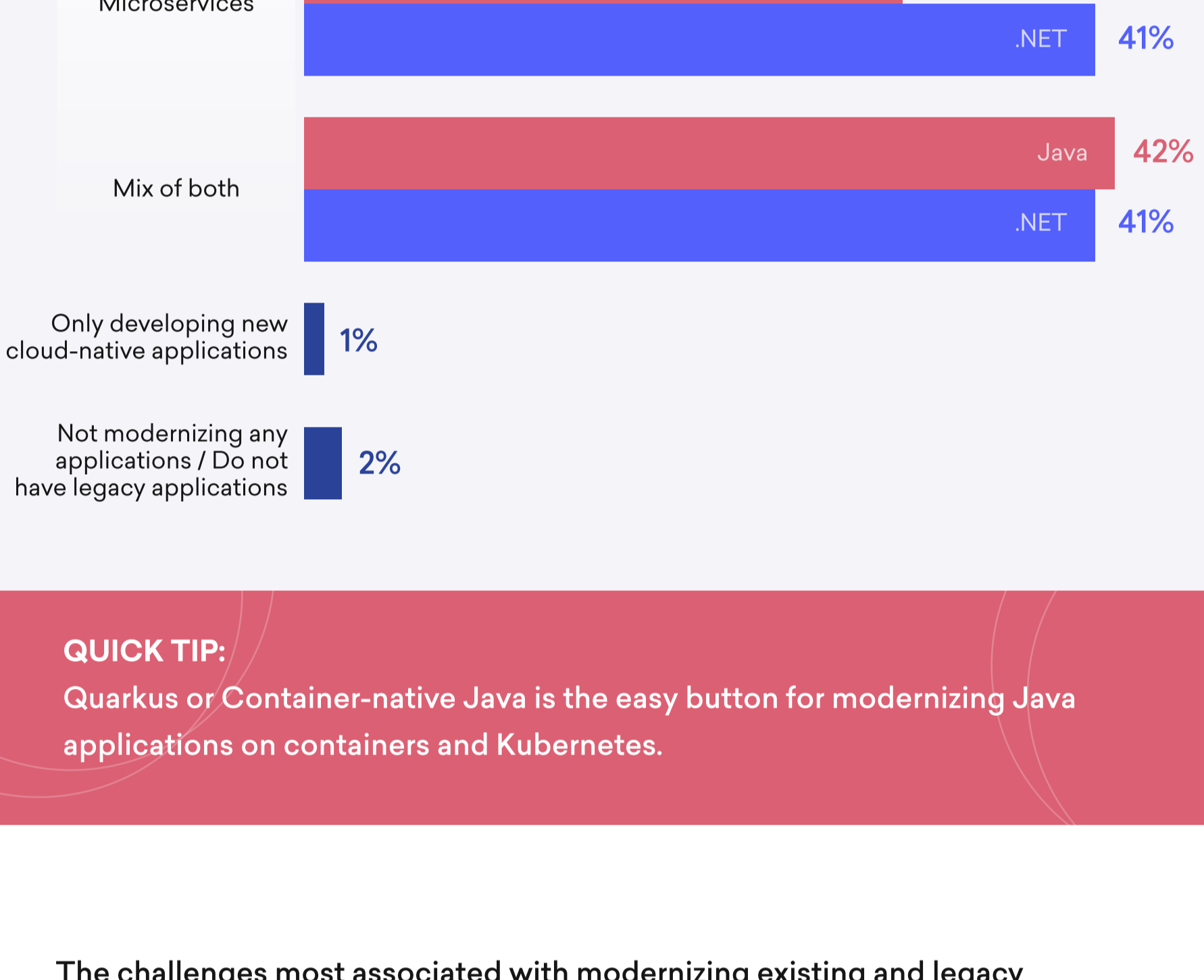
## Deploy and modernize your applications with containers and Kubernetes

Kubernetes isn't just for custom developed cloud-native applications. Over half of respondents (57%) are deploying a mix of both custom developed and ISV software on containers and Kubernetes.



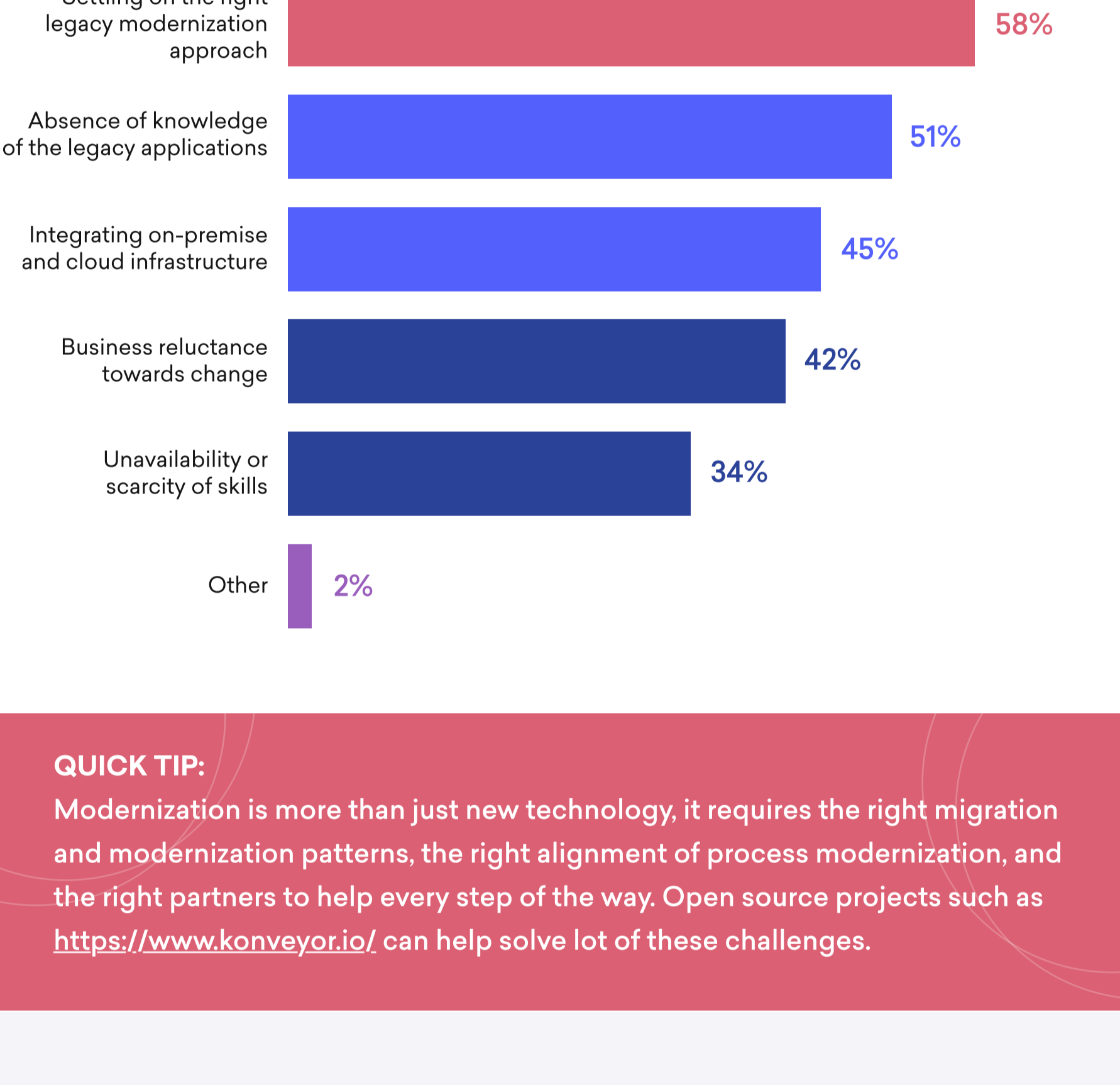
Legacy Java stacks aren't optimized for containers. 97% of respondents are modernizing their Java and .Net applications on containers and Kubernetes with either monolithic, microservices, or a mix of both architectures.

More than 80% of companies want flexibility in how they modernize their Java and .NET applications, with a strong desire to co-exist with microservice application architectures and platforms.



**QUICK TIP:** Quarkus or Container-native Java is the easy button for modernizing Java applications on containers and Kubernetes.

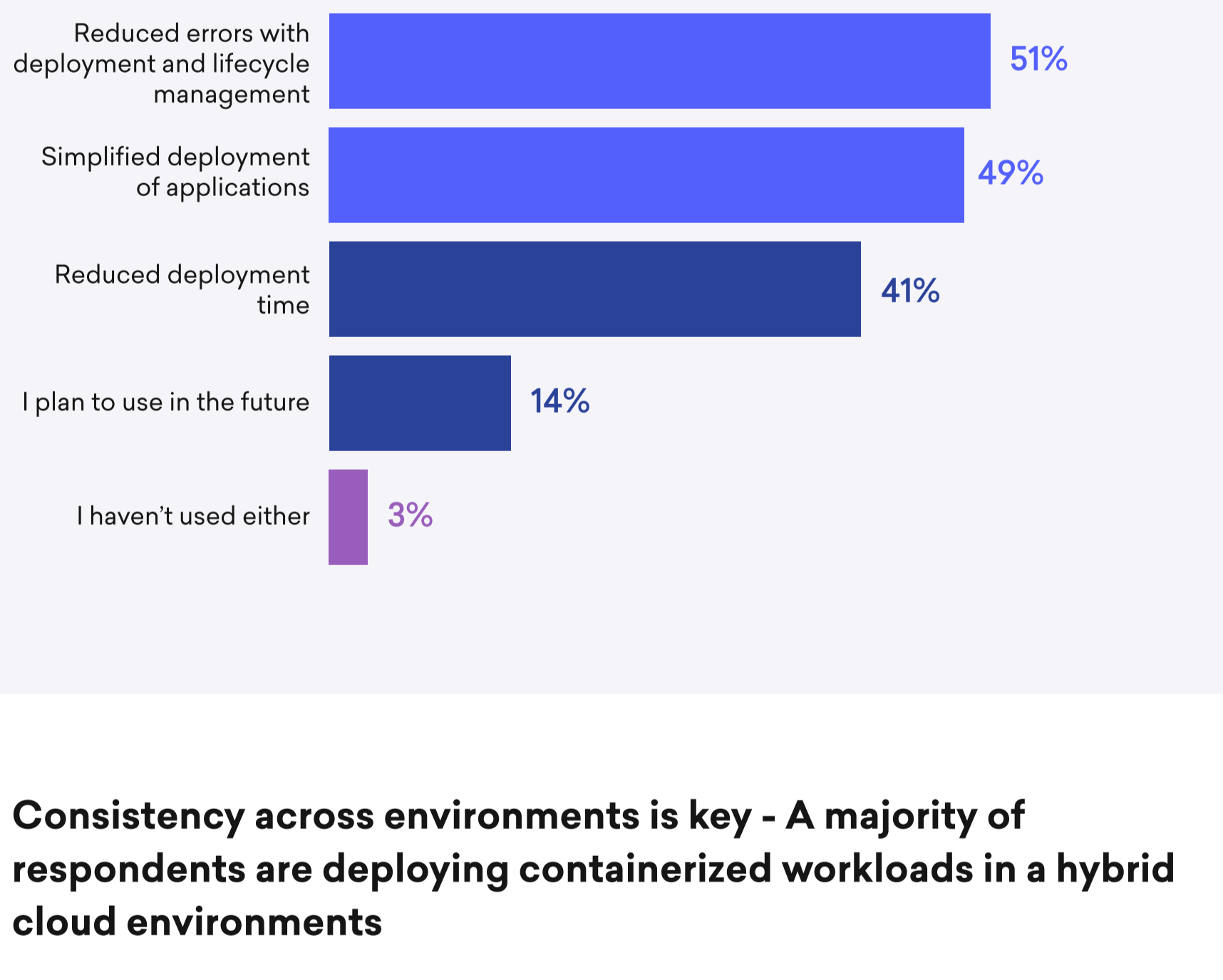
The challenges most associated with modernizing existing and legacy applications are reducing the time and cost of modernization (63%), settling on the right approach (58%), and absence of knowledge of the legacy applications (51%).



**QUICK TIP:** Modernization is more than just new technology, it requires the right migration and modernization patterns, the right alignment of process modernization, and the right partners to help every step of the way. Open source projects such as <https://www.konveyor.io/> can help solve a lot of these challenges.

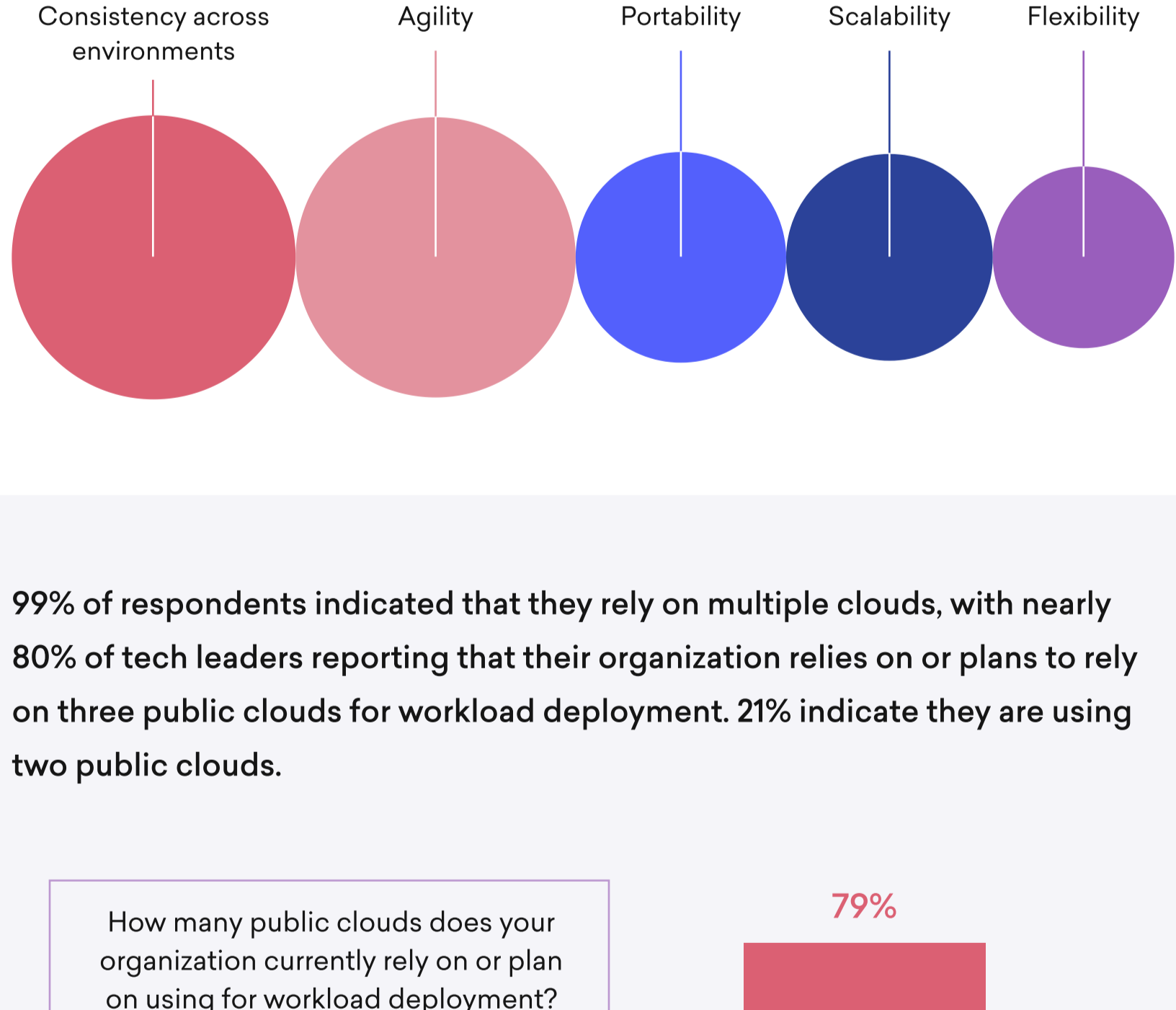
## Kubernetes Operators and Helm charts save time, simplify deployment, and automate updates and upgrades

Respondents who have used Kubernetes Operators and Helm charts say they were able to automate updates and upgrades (62%), save developers' time and reduce the need for a larger team (53%), and reduce errors in deployment (51%).

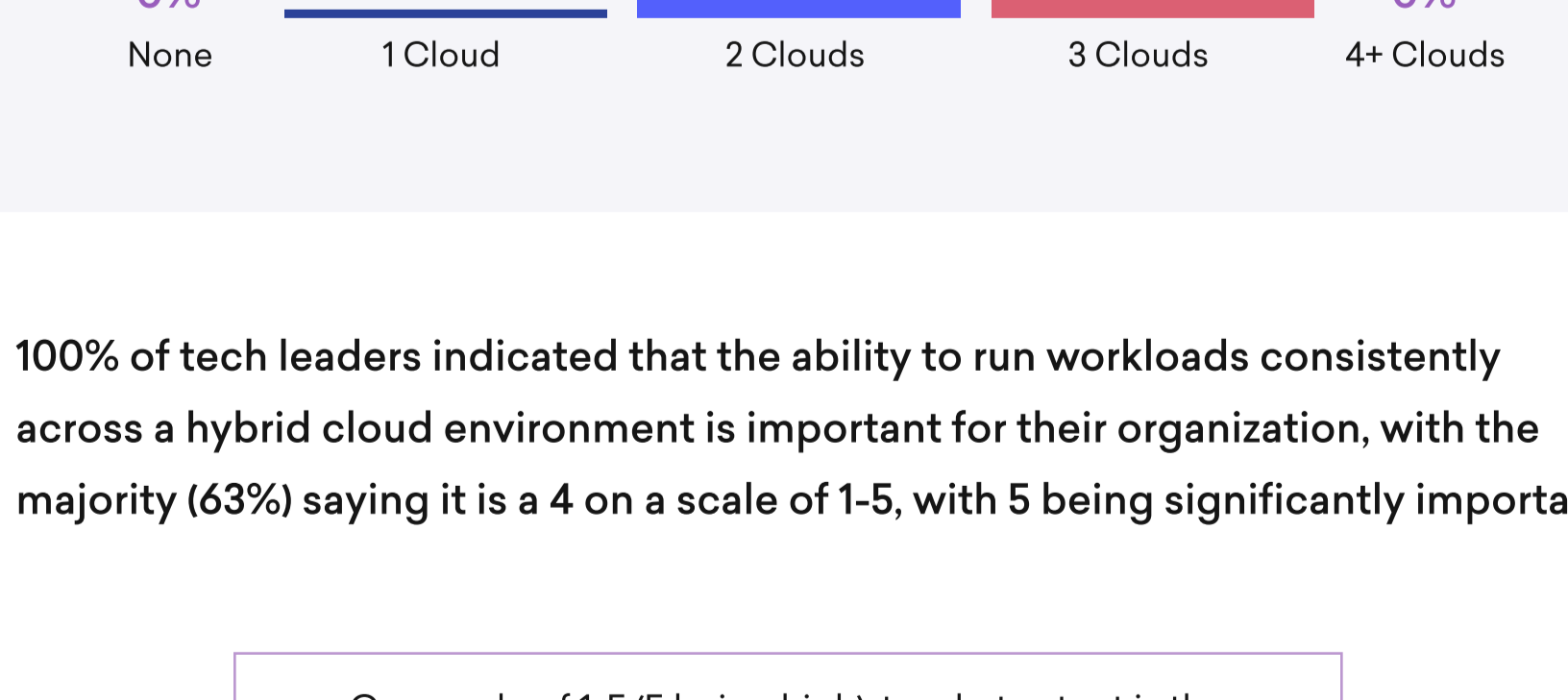


## Consistency across environments is key - A majority of respondents are deploying containerized workloads in a hybrid cloud environments

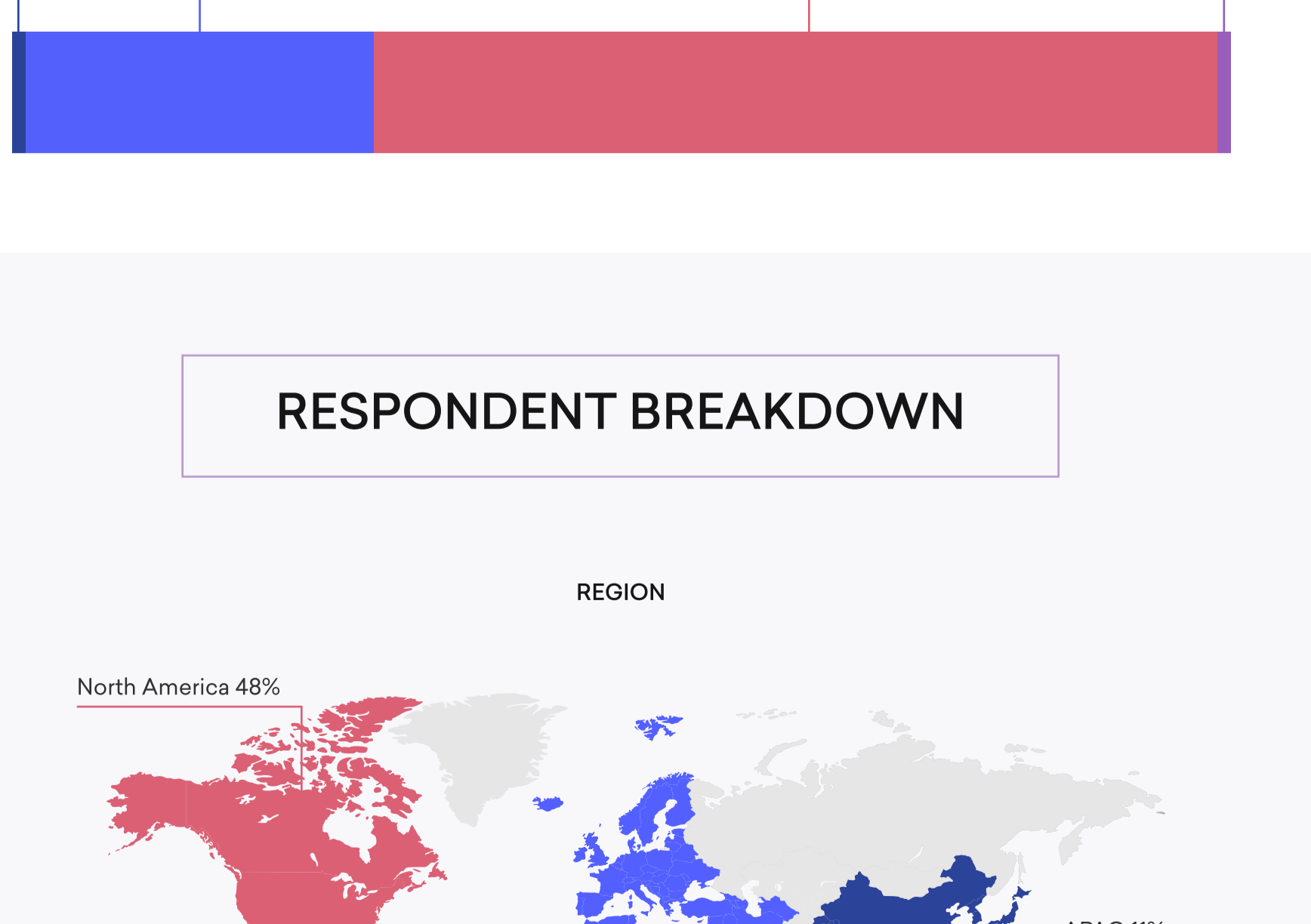
Over 70% of companies have the need for consistency across clouds as they deploy into hybrid and multi-cloud environments. Respondents also benefit from agility (73%) and portability (55%) by deploying workloads on containers and Kubernetes.



99% of respondents indicated that they rely on multiple clouds, with nearly 80% of tech leaders reporting that their organization relies on or plans to rely on three public clouds for workload deployment. 21% indicate they are using two public clouds.



100% of tech leaders indicated that the ability to run workloads consistently across a hybrid cloud environment is important for their organization, with the majority (63%) saying it is a 4 on a scale of 1-5, with 5 being significantly important.

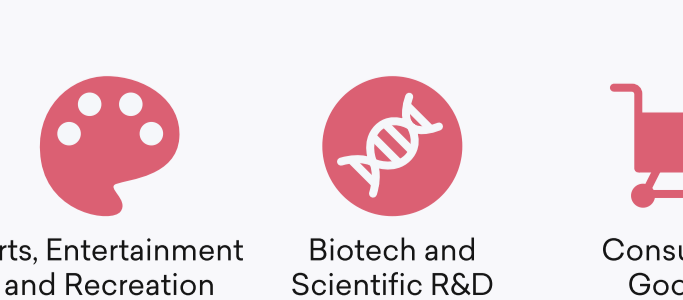


## RESPONDENT BREAKDOWN

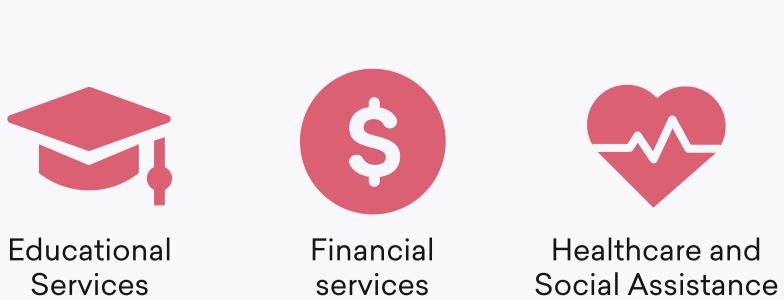
### REGION



### TITLE



### COMPANY SIZE



### INDUSTRIES

