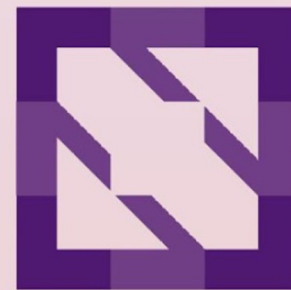




KubeCon



CloudNativeCon

North America 2023





KubeCon



CloudNativeCon

North America 2023

Introducing the BACK Stack!

David Murphy, Solution Architect, Upbound

Ritesh Patel, Products, Nirmata

Agenda



KubeCon



CloudNativeCon

North America 2023

- Introductions
- Platform Engineering
- Components of Internal Developer Platform
- The BACK Stack
- Demo
- What's Next

The Rise of Platform Engineering

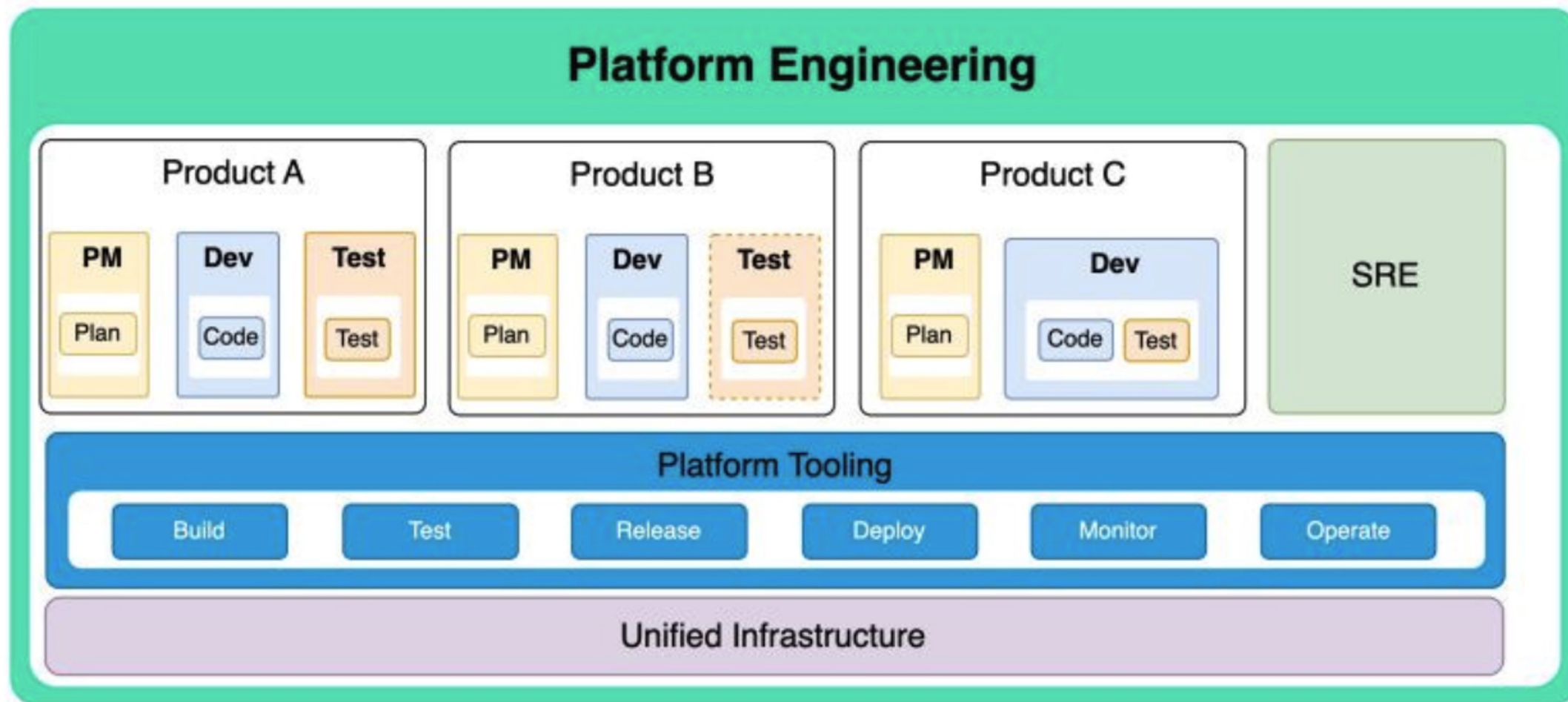


KubeCon



CloudNativeCon

North America 2023



Responsibilities of a Platform Engineer



KubeCon



CloudNativeCon

North America 2023

Build a shared platform, including the tools, services, workflows, and data used by engineers and technical teams across the organization

- ✓ Design and implement platform infrastructure
- ✓ Automate infrastructure and application deployment (self-service)
- ✓ Provide troubleshooting and debugging support, if needed
- ✓ Implement best practices, security and compliance guardrails
- ✓ Monitor and optimize platform and share services/tools performance
- ✓ Manage and update infrastructure and tools



- Reduce operational complexity
- Speed up development cycle and accelerate product delivery
- Eliminate silos and improve collaboration
- Optimize resource utilization
- Mitigate risk via consistent security and governance

Platform Requirements



KubeCon



CloudNativeCon

North America 2023

- Composable
- Cloud-agnostic
- Kubernetes-native
- Uses mature CNCF components
- Flexible
- Extensible



CNCF Platform

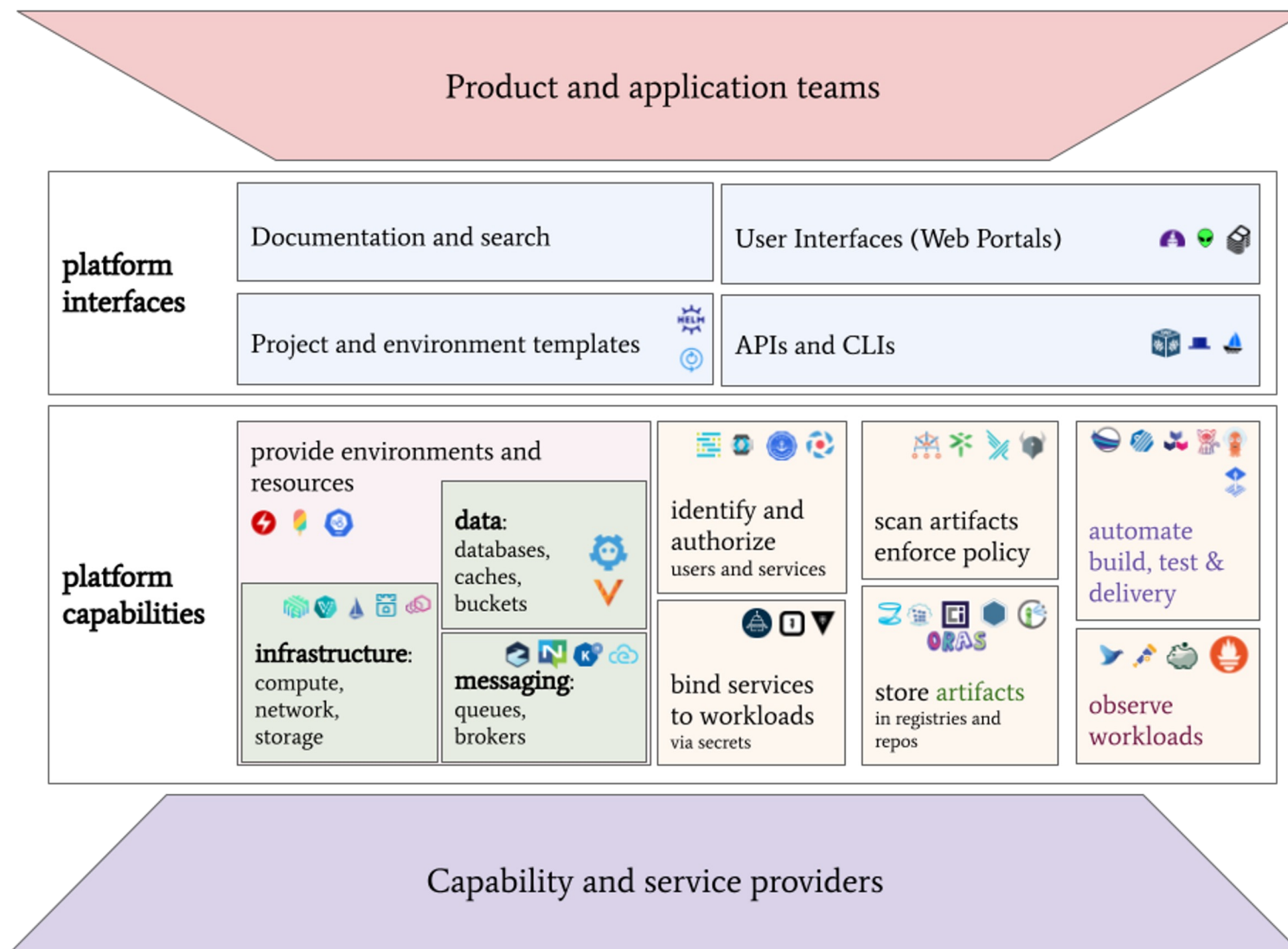


KubeCon



CloudNativeCon

North America 2023





KubeCon



CloudNativeCon

———— North America 2023 ————



The BACK Stack

The BACK Stack



KubeCon



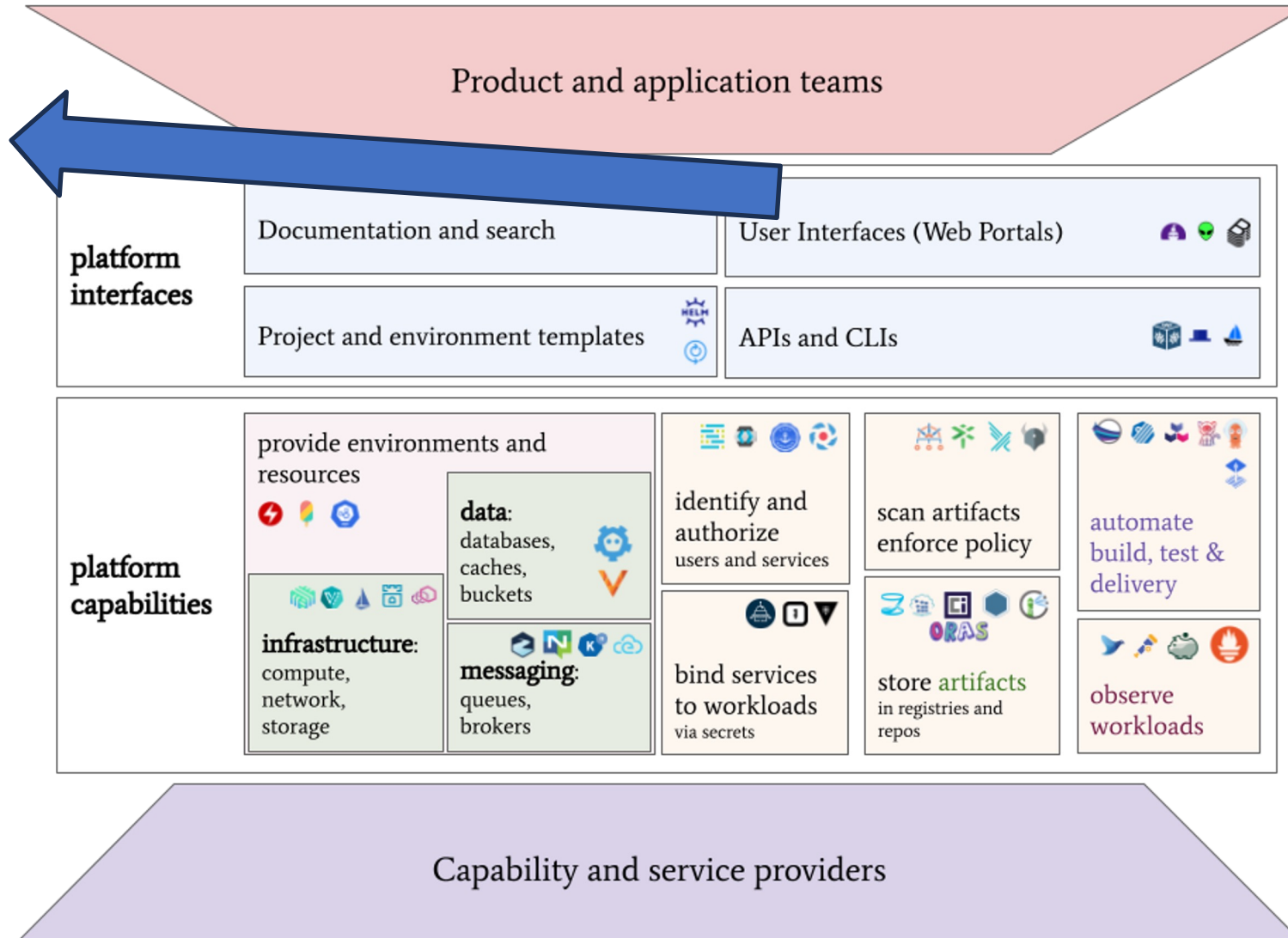
CloudNativeCon

North America 2023



Backstage

[Developer Portal]



The BACK Stack



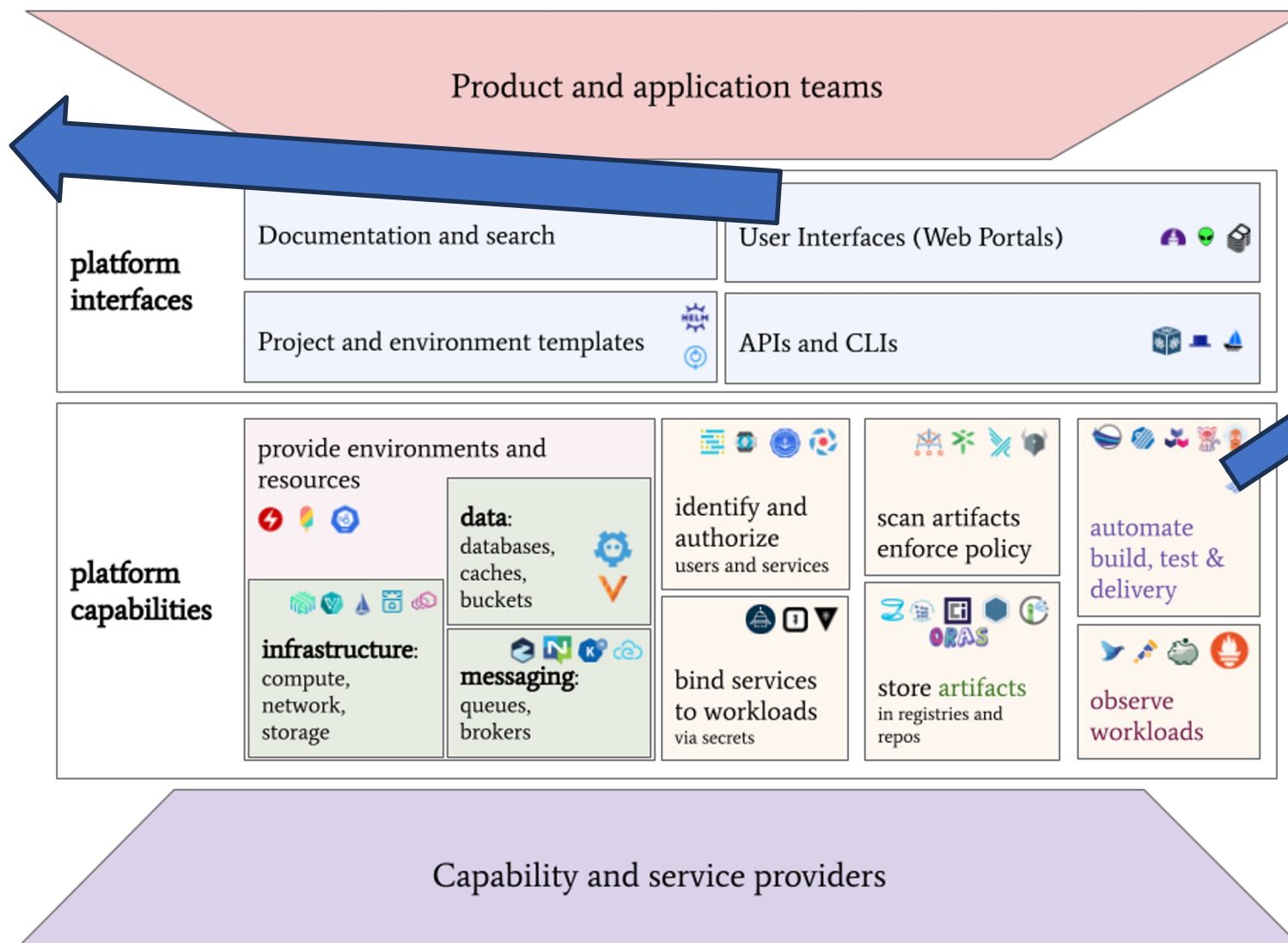
KubeCon



CloudNativeCon

North America 2023

 **Backstage**
[Developer Portal]



argo
[GitOps]

The BACK Stack

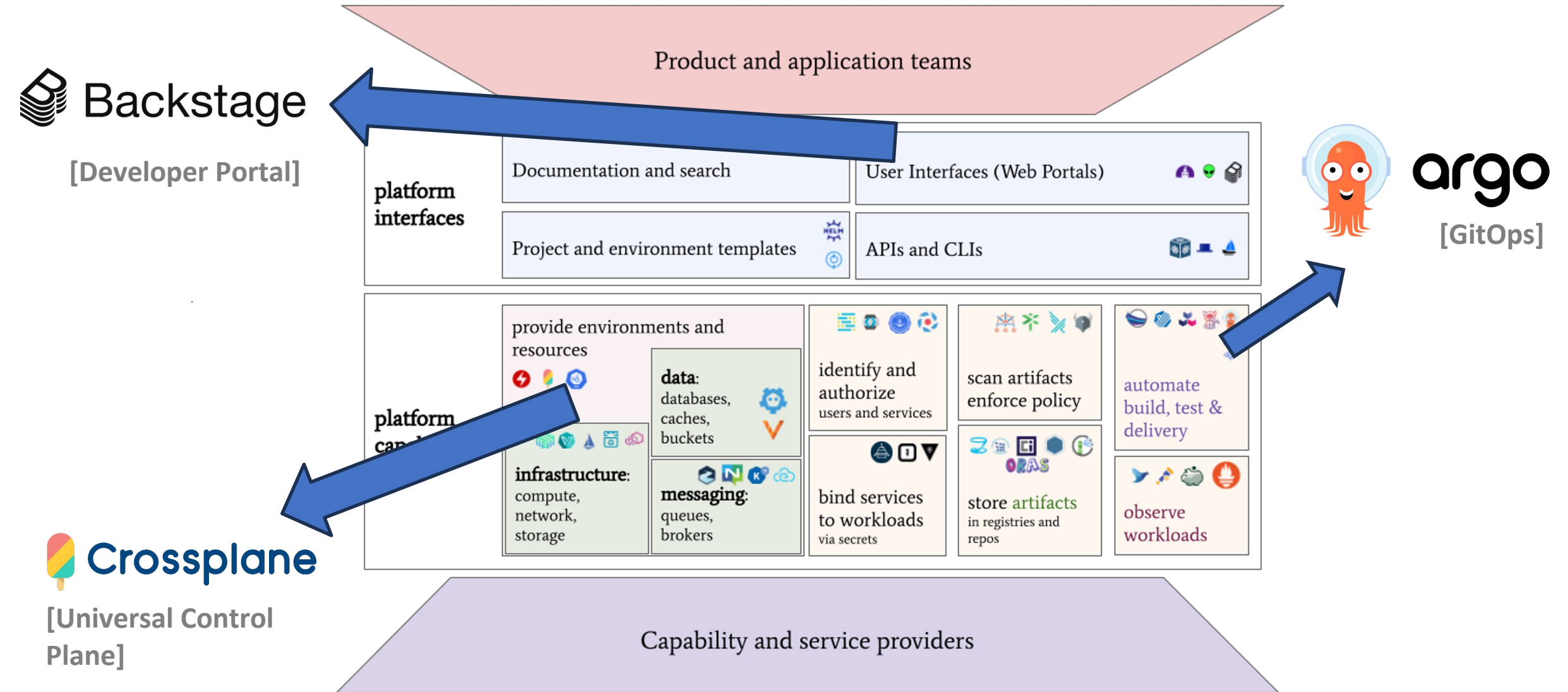


KubeCon



CloudNativeCon

North America 2023



The BACK Stack

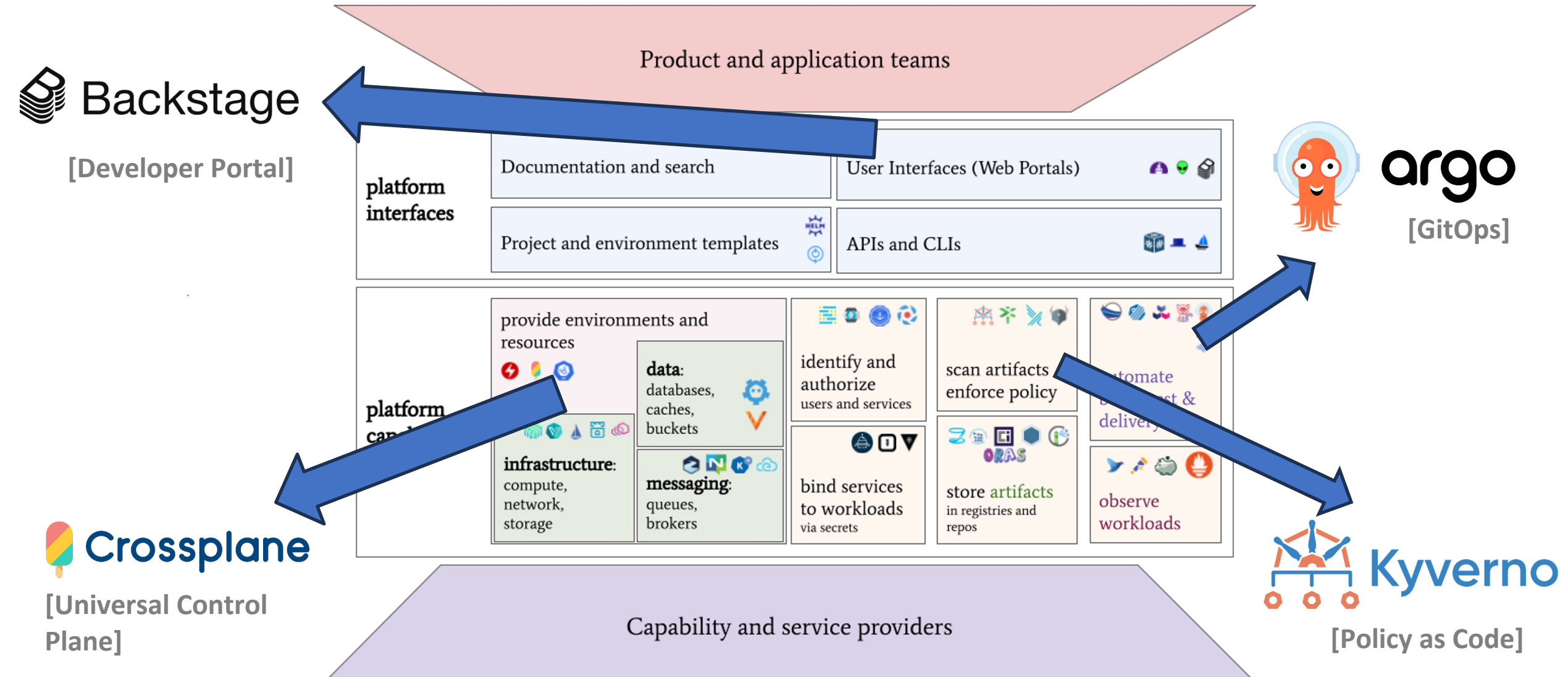


KubeCon



CloudNativeCon

North America 2023





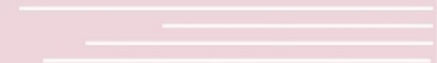
KubeCon



CloudNativeCon

———— North America 2023 ————

Demo



Reference Architecture

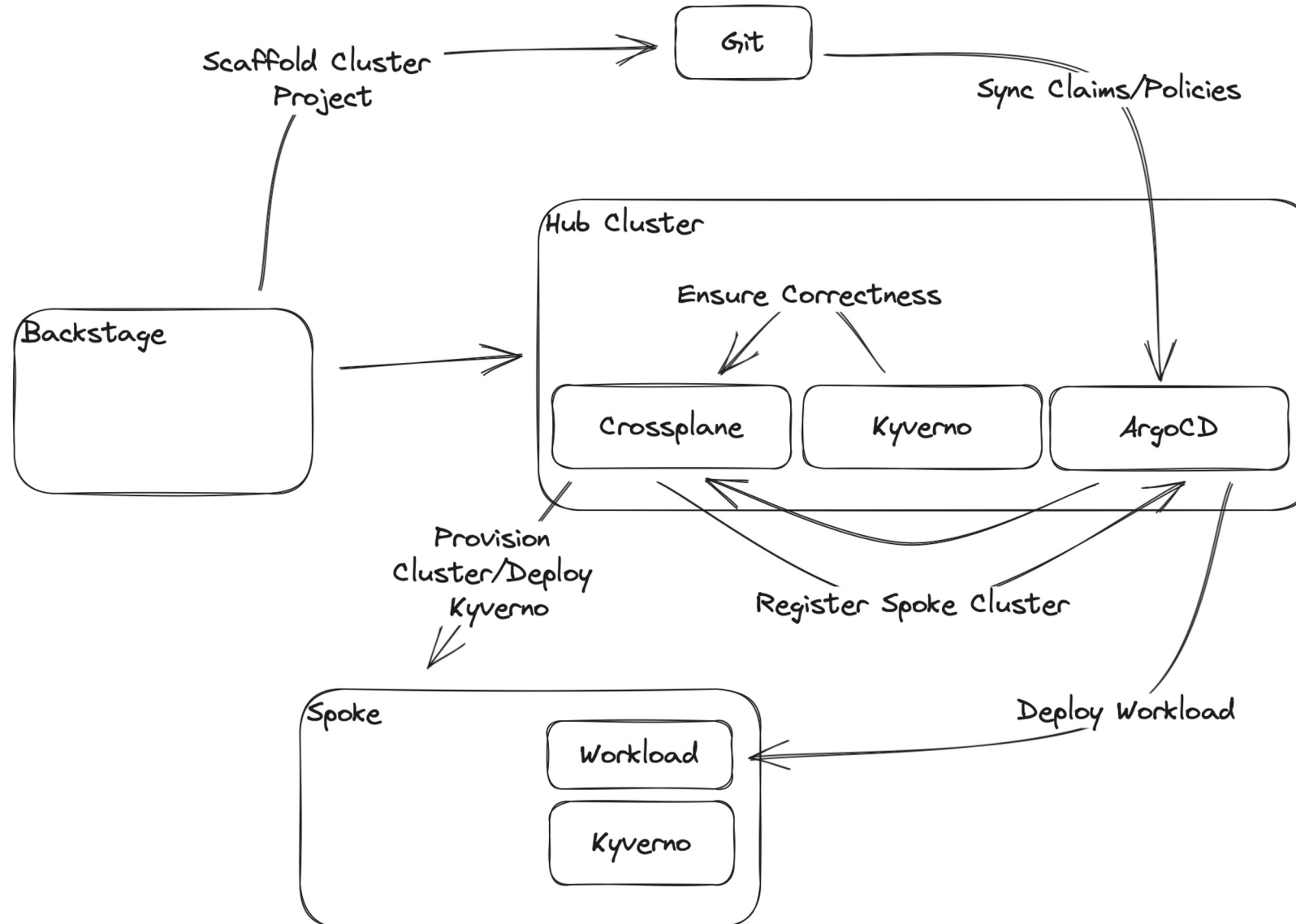


KubeCon



CloudNativeCon

North America 2023



What's Next...



KubeCon



CloudNativeCon

North America 2023

- Flexible bootstrapping
- Additional use cases – e.g. Namespace as a service
- Operator dashboards
- Integrations

Try it out



KubeCon



CloudNativeCon

North America 2023



<https://github.com/crossplane-contrib/back-stack>

Backstage

<https://backstage.io/>

ArgoCD

<https://argo-cd.readthedocs.io/>

Crossplane

<https://www.crossplane.io/>

Kyverno

<https://kyverno.io/>



KubeCon



CloudNativeCon

North America 2023



Please scan the QR Code above
to leave feedback on this session



KubeCon



CloudNativeCon

———— North America 2023 ————

Thank You!

