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What is one of the misconceptions of reducing cognitive load?

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DEV TO THE FUTURE

Improving Developer Experience

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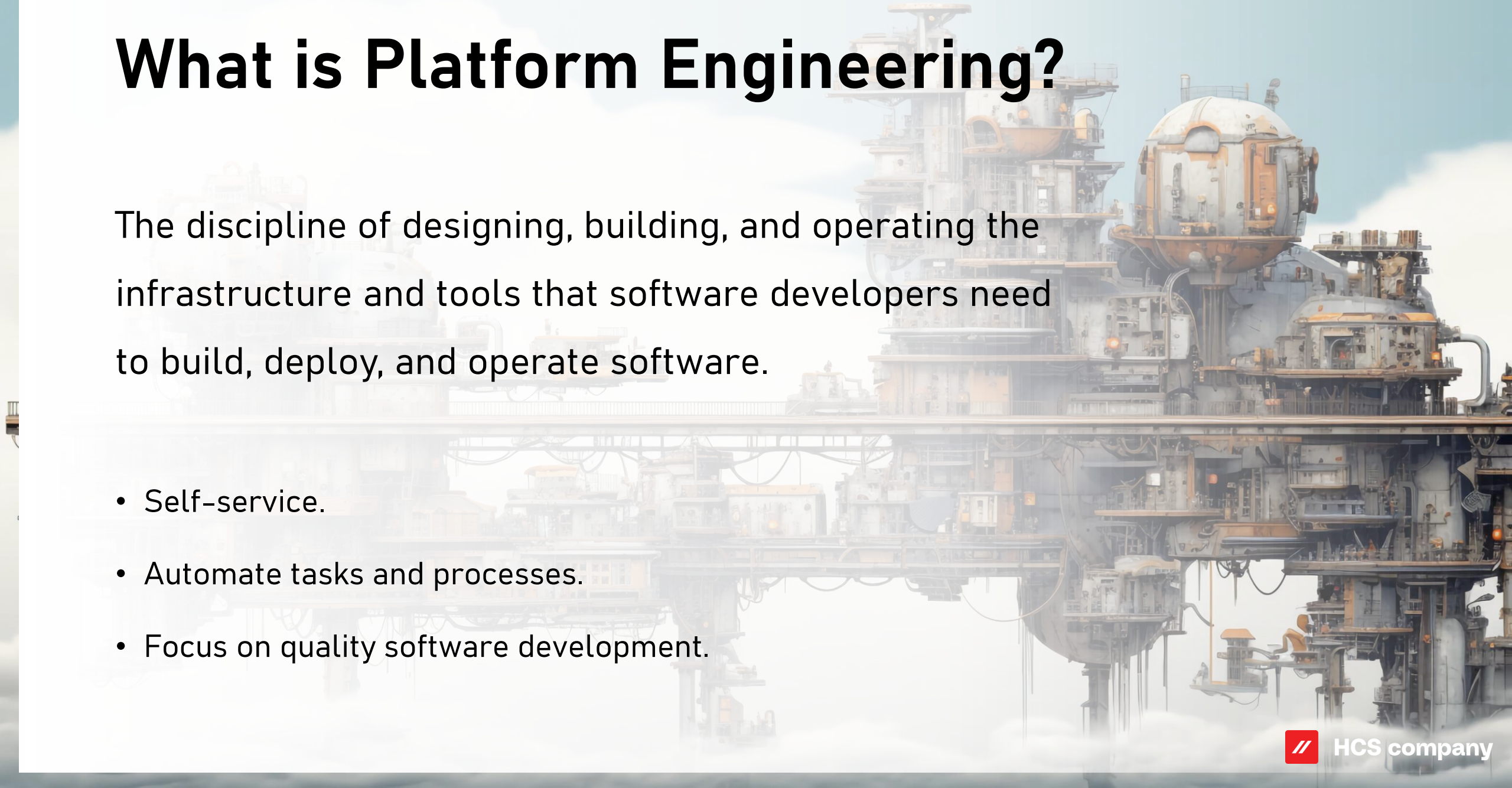
Charging your Platforms | Powered by Teamwork

Topics

- Platform Engineering! What and why?
- How it relates to DevOps and SRE.
- Developer Experience! What and how to improve!
- Valhalla of tools.

What is Platform Engineering?



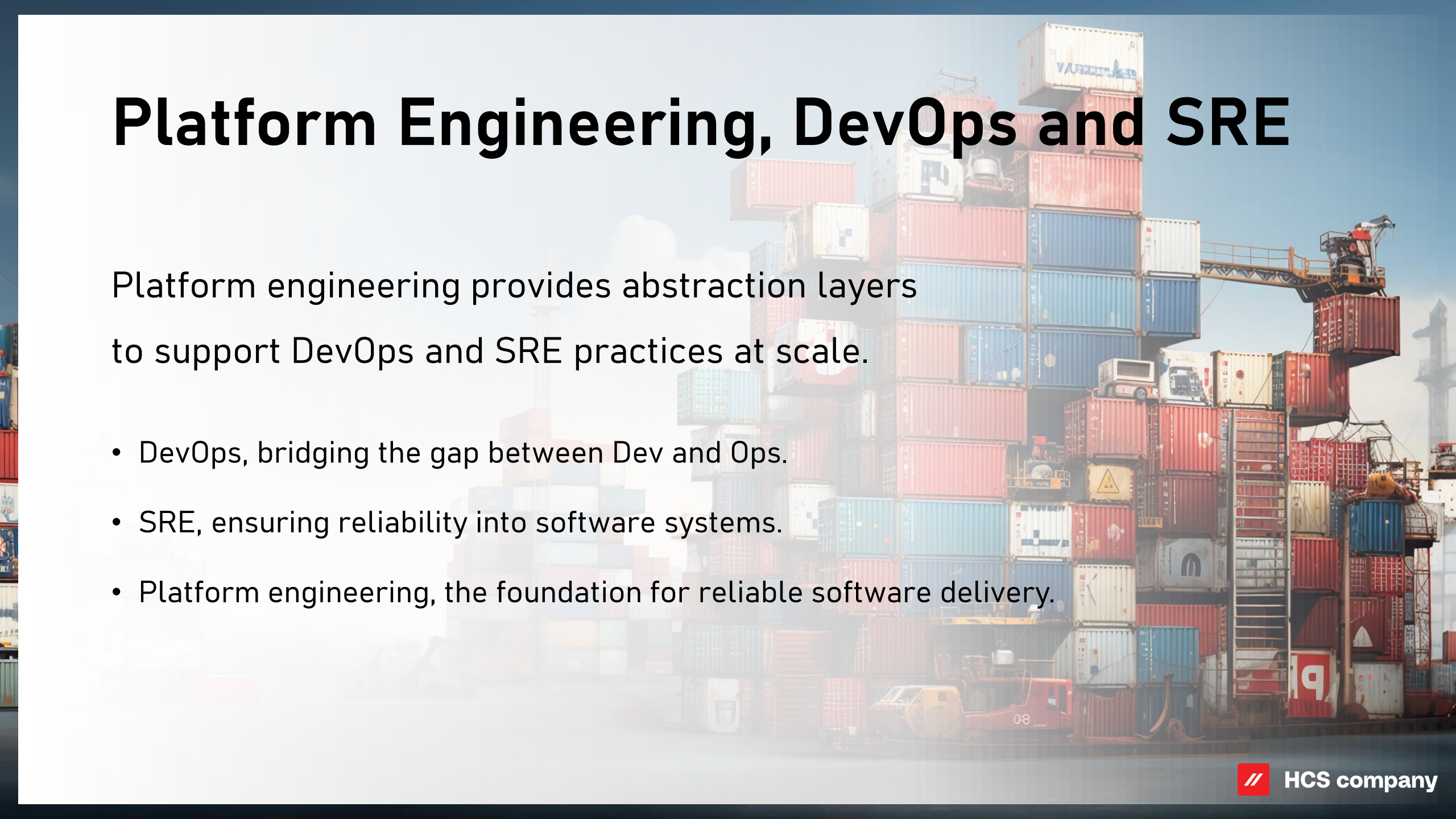
The discipline of designing, building, and operating the infrastructure and tools that software developers need to build, deploy, and operate software.

- Self-service.
- Automate tasks and processes.
- Focus on quality software development.

Role of Platform Engineering

- Provides a consistent and reliable platform.
- Helps to automate tasks and processes to improve efficiency.
- Empowers developers to be more productive.
- Collaborates with other teams to ensure a smooth software delivery.

Platform Engineering, DevOps and SRE



Platform engineering provides abstraction layers

to support DevOps and SRE practices at scale.

- DevOps, bridging the gap between Dev and Ops.
- SRE, ensuring reliability into software systems.
- Platform engineering, the foundation for reliable software delivery.

Abstraction layer

Internal Developer Platform

Monitoring | CI | Logging | CD | Security

Identity | Network | Baremetals | Access | VCS

Backup | Datacenter | Compliancy | Virtualization

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Why Platform Engineering is needed

Increasing need for efficiency and reliability in development, deployment, operation, and management.

- Complexity of software systems.
- Demand for reliable and maintainable software.
- Speed and agility.
- Costs of (software) failures.

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What is Developer Experience?

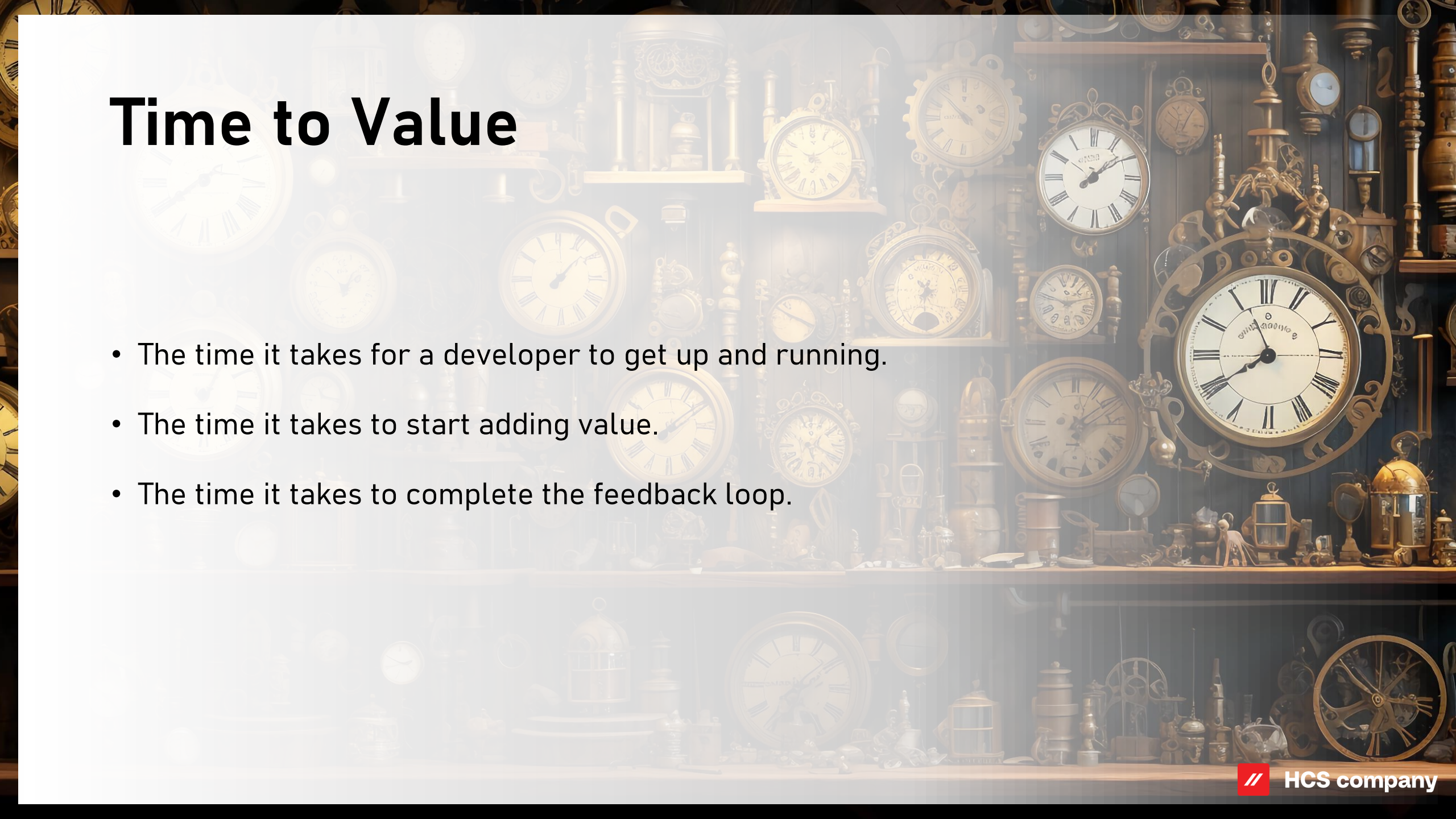
The overall experience of a developer when working to add value.

Factors of influence:

- Ease of use.
- Availability and accessibility.
- Documentation and support.
- The overall quality of the experience.

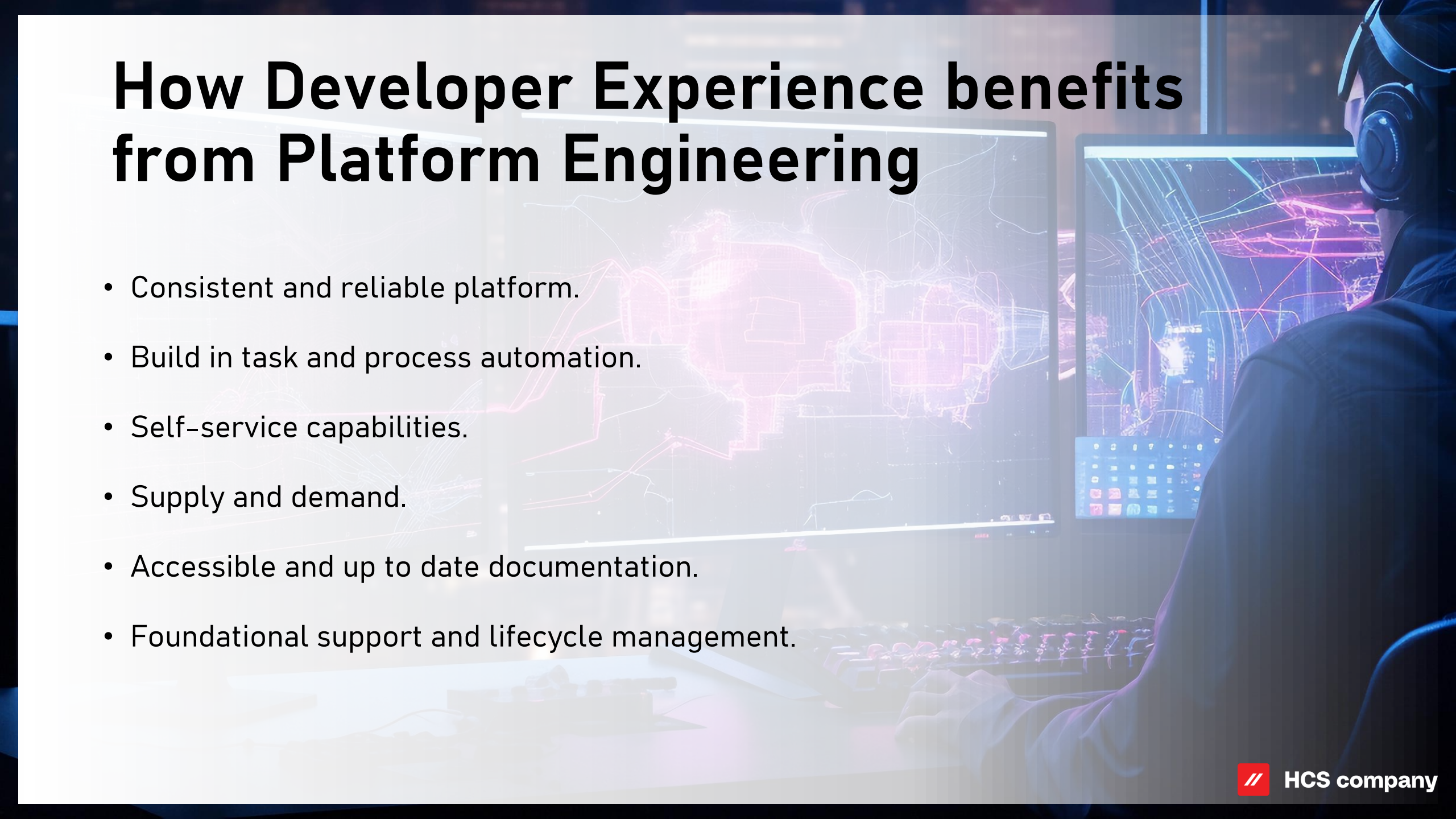
Time to Value

- The time it takes for a developer to get up and running.
- The time it takes to start adding value.
- The time it takes to complete the feedback loop.



How Developer Experience benefits from Platform Engineering

- Consistent and reliable platform.
- Build in task and process automation.
- Self-service capabilities.
- Supply and demand.
- Accessible and up to date documentation.
- Foundational support and lifecycle management.

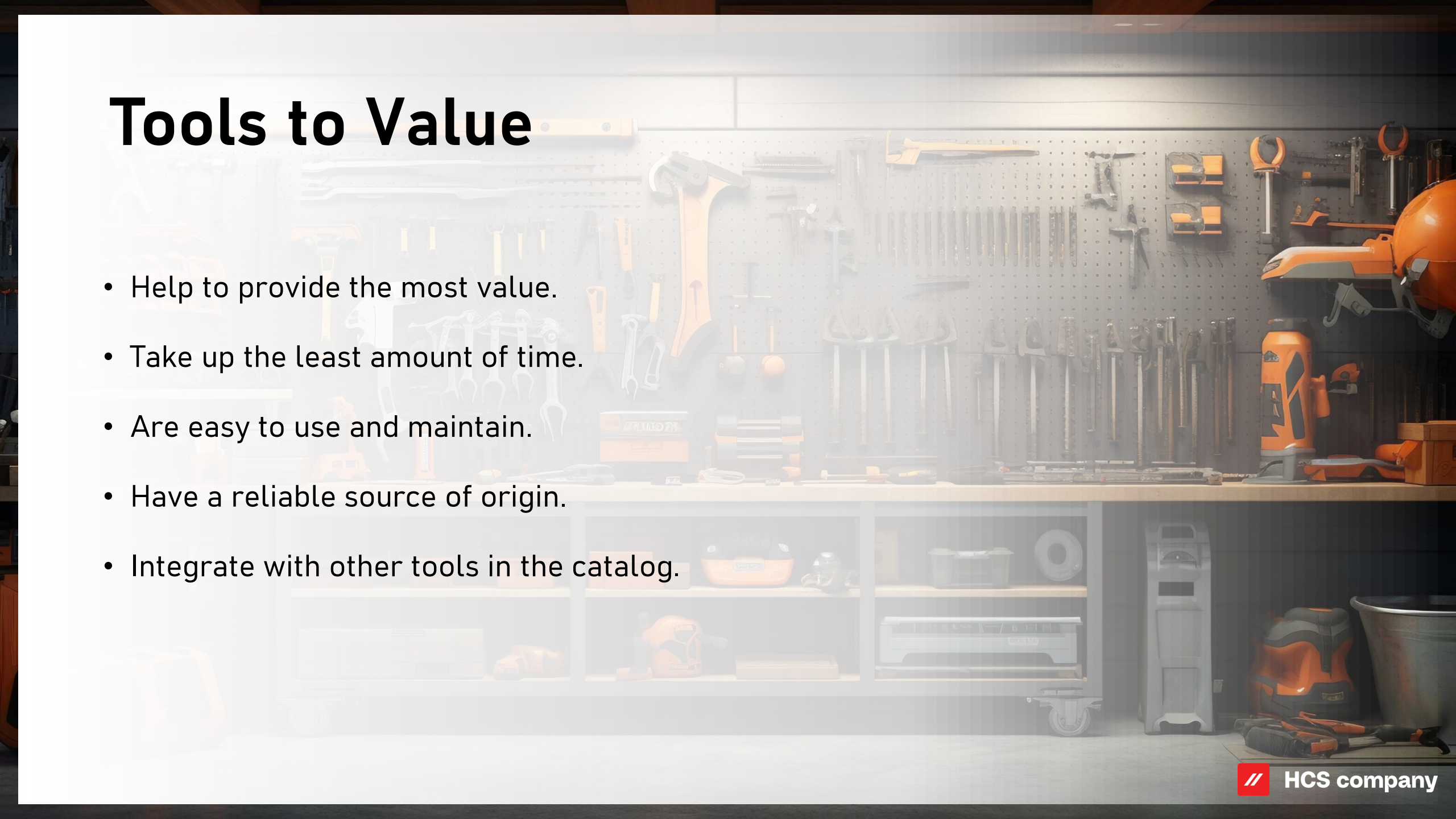


Improving Developer Experience

- Invest in “as a service” capabilities.
- Focus on the right tools/products.
- Provide training, guides and guardrails.
- Facilitate in an open culture of collaboration and community.
- Ask the right questions and address them appropriately.
- Developer centric approach.

Tools to Value

- Help to provide the most value.
- Take up the least amount of time.
- Are easy to use and maintain.
- Have a reliable source of origin.
- Integrate with other tools in the catalog.



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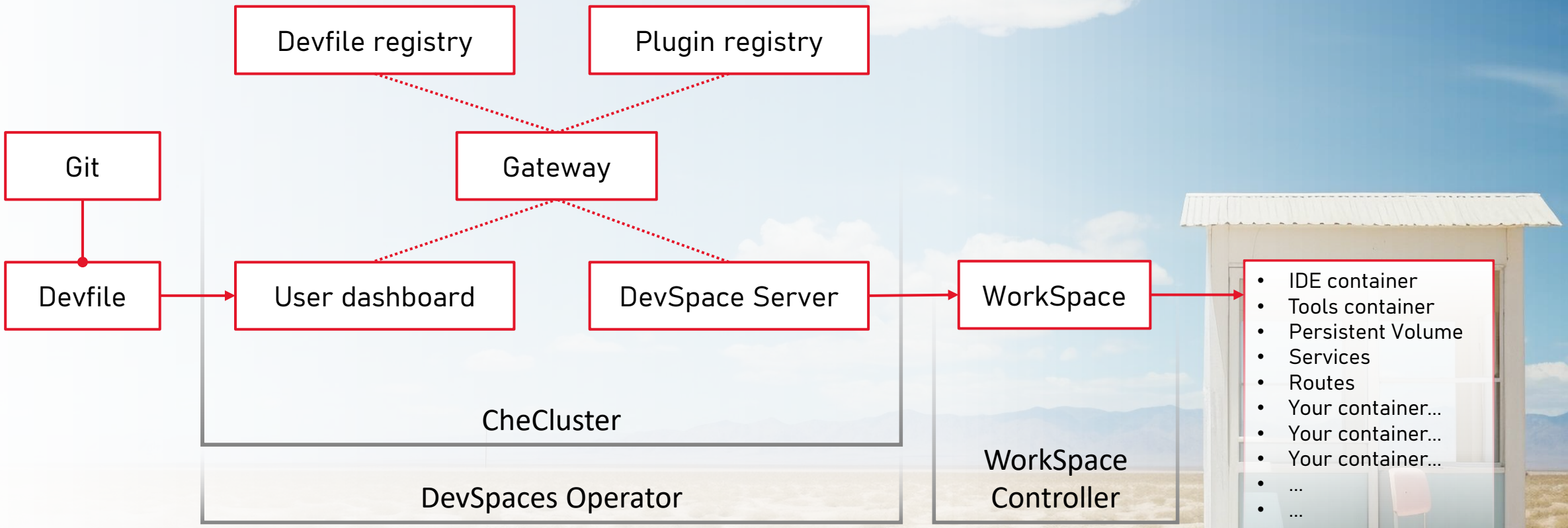
Red Hat DevSpaces (Eclipse Che)

Development environment as a service (DaaS) that provides consistent and reliable environments for developers to develop, build, test, and deploy.

Features, such as:

- Self-service portal.
- Standardized, consistent and production like worskpaces.
- Integrated tools for development, testing, and deployment.
- Support for a variety of programming languages and frameworks.

Devfile to WorkSpace



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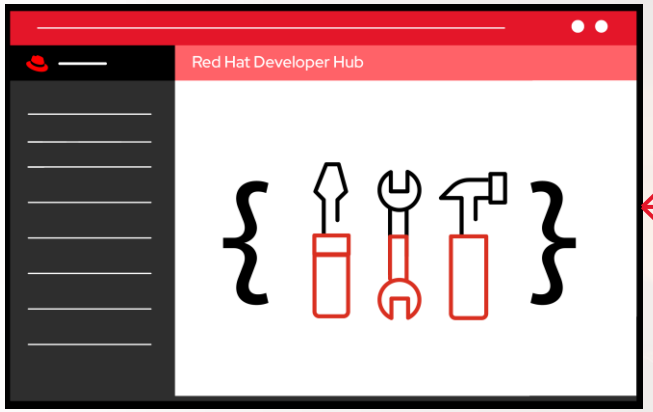
Red Hat Developer Hub (Backstage)

Backstage is an open platform for building developer portals.

Features, such as:

- Software catalog; Overview all software components.
- Software Templates; Standardized workflow and setup.
- TechDocs; Create and find maintainable docs.
- Plugins; Extend capabilities.

Single pane of glass and golden paths



- Catalog → Software Components
- Plugins → Additional Capabilities
- Template → Software Component
  - Overview
  - Topology
  - Links/Description
  - Source code repoitories
  - Issues
  - Pull/Merge requests
  - CI (Tekton)
  - CD (ArgoCD)
  - Kubernetes
  - Image registry
  - API overview
  - Dependencies/Relations
  - Docs

Multidimensional portals

Red Hat OpenShift web console

- To view and manage workload in a cluster.

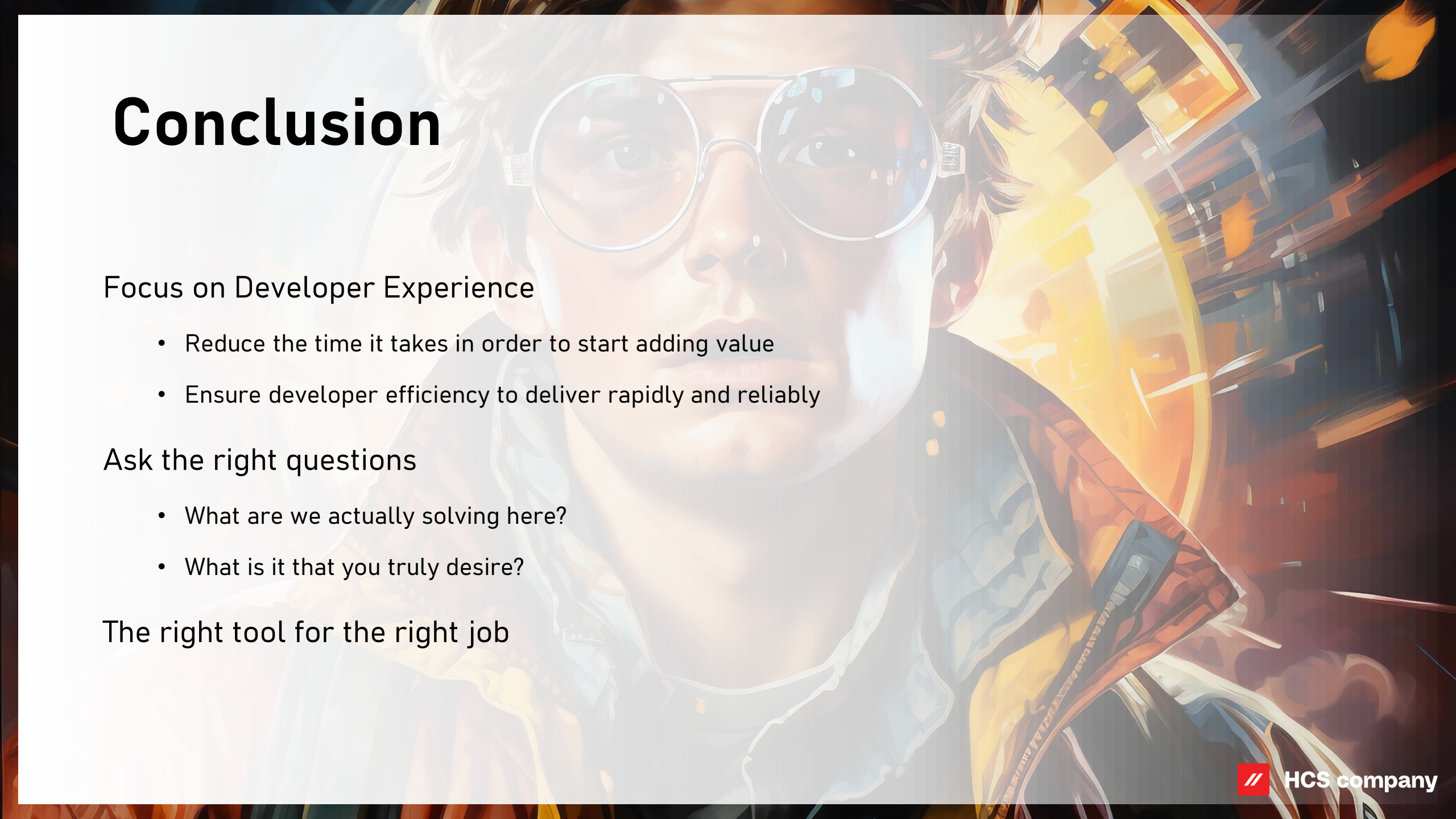
Red Hat DevSpaces

- Environments to develop, build, test, and deploy applications.

Red Hat Developer Hub

- Standardized setup and central insights in component resources.

Conclusion



Focus on Developer Experience

- Reduce the time it takes in order to start adding value
- Ensure developer efficiency to deliver rapidly and reliably

Ask the right questions

- What are we actually solving here?
- What is it that you truly desire?

The right tool for the right job

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Improving Developer Experience

What is one of the misconceptions of reducing cognitive load?

It's all about reducing "**Extraneous**" cognitive load while keeping "**Intrinsic**" and "**Germain**" cognitive load.

Source:

Team Topologies *– Organizing business and technology teams for fast flow*