

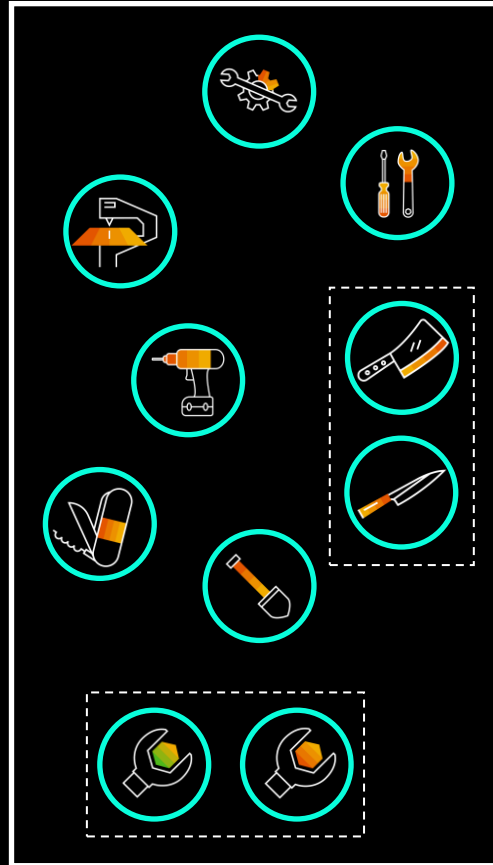


Paving the Road for 30.000+ developers

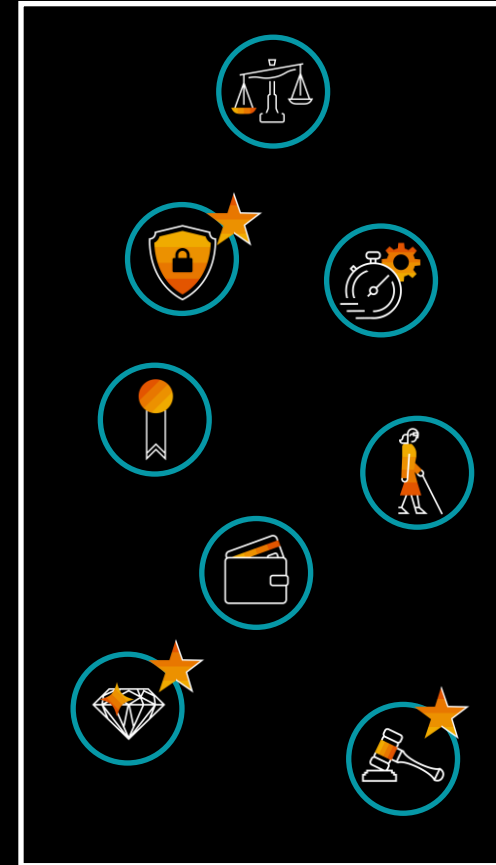
Dirk Lehmann, SAP

Public

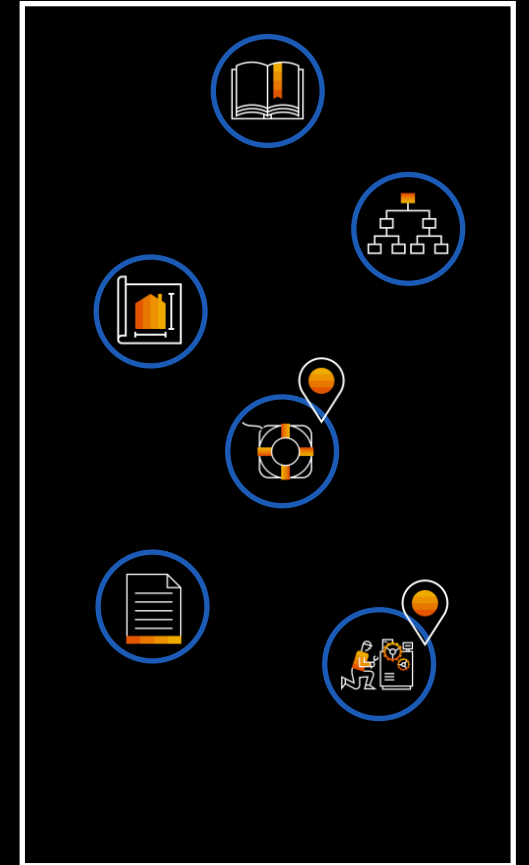
What we did in **the past**



Tools

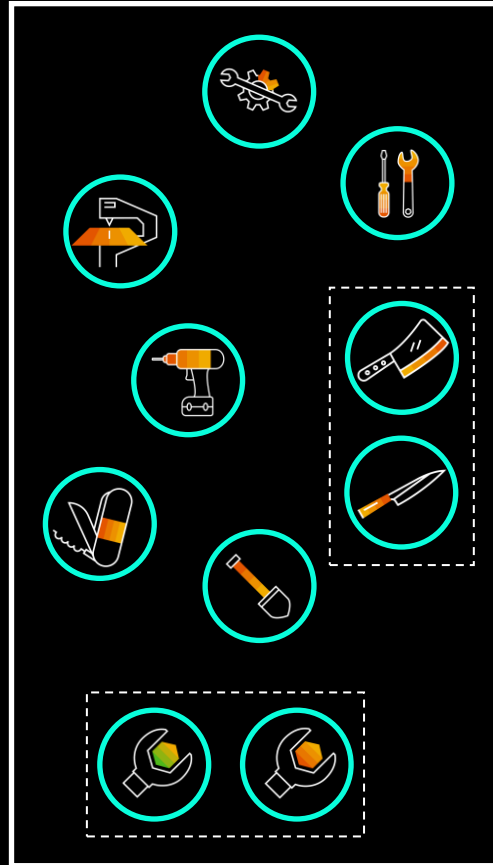


Process Requirements

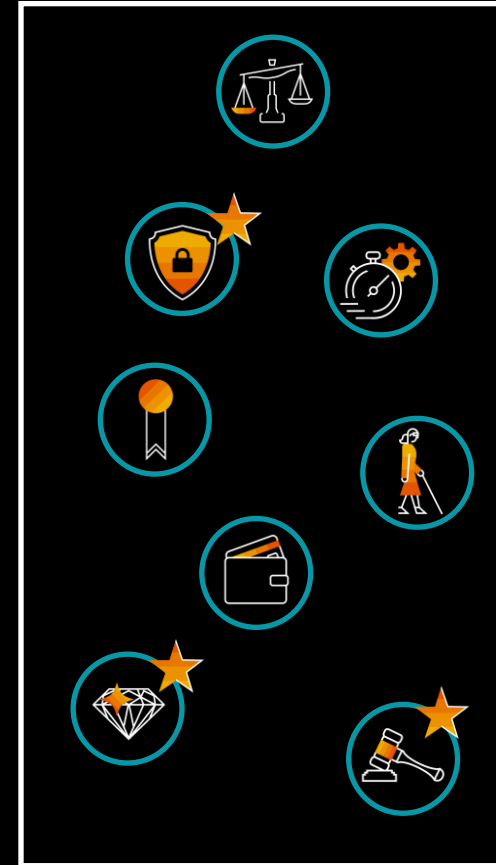


Guidelines

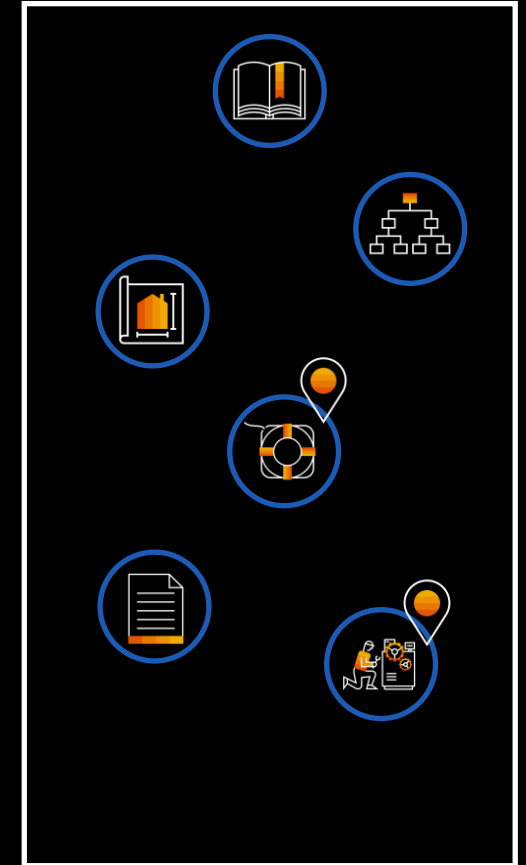
What we did in **the past**



Tools



Process Requirements

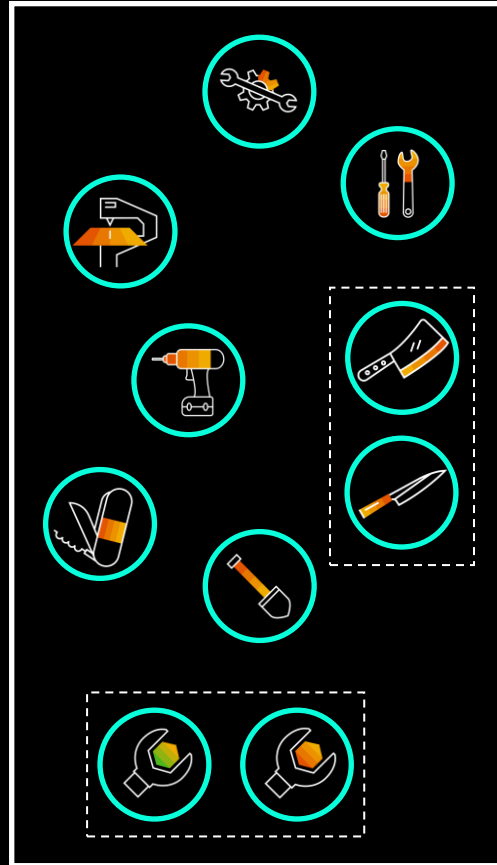


Guidelines

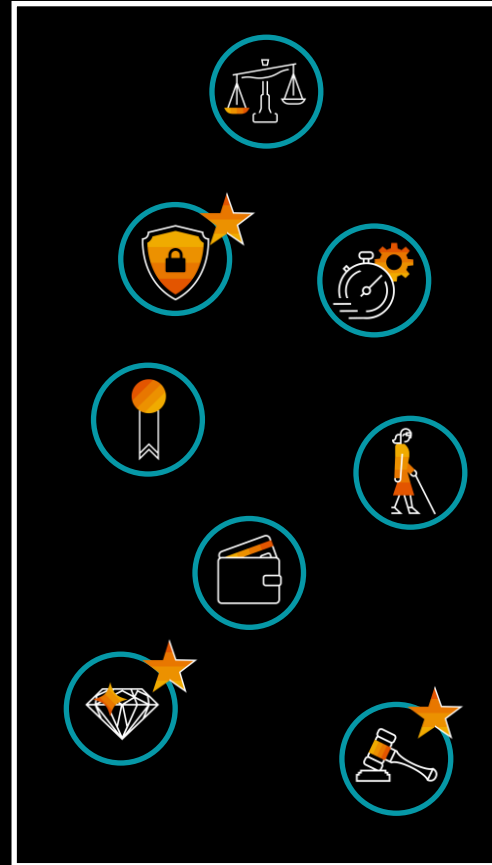
Shift left all the things



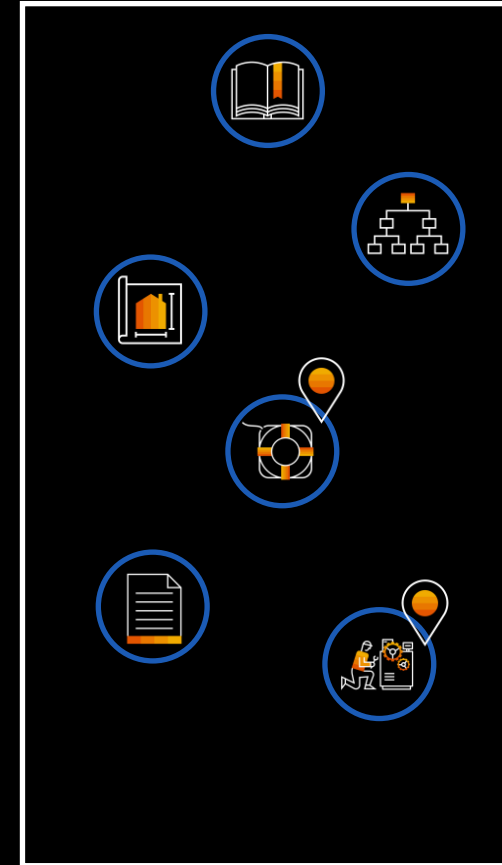
Engineering



Tools



Process Requirements



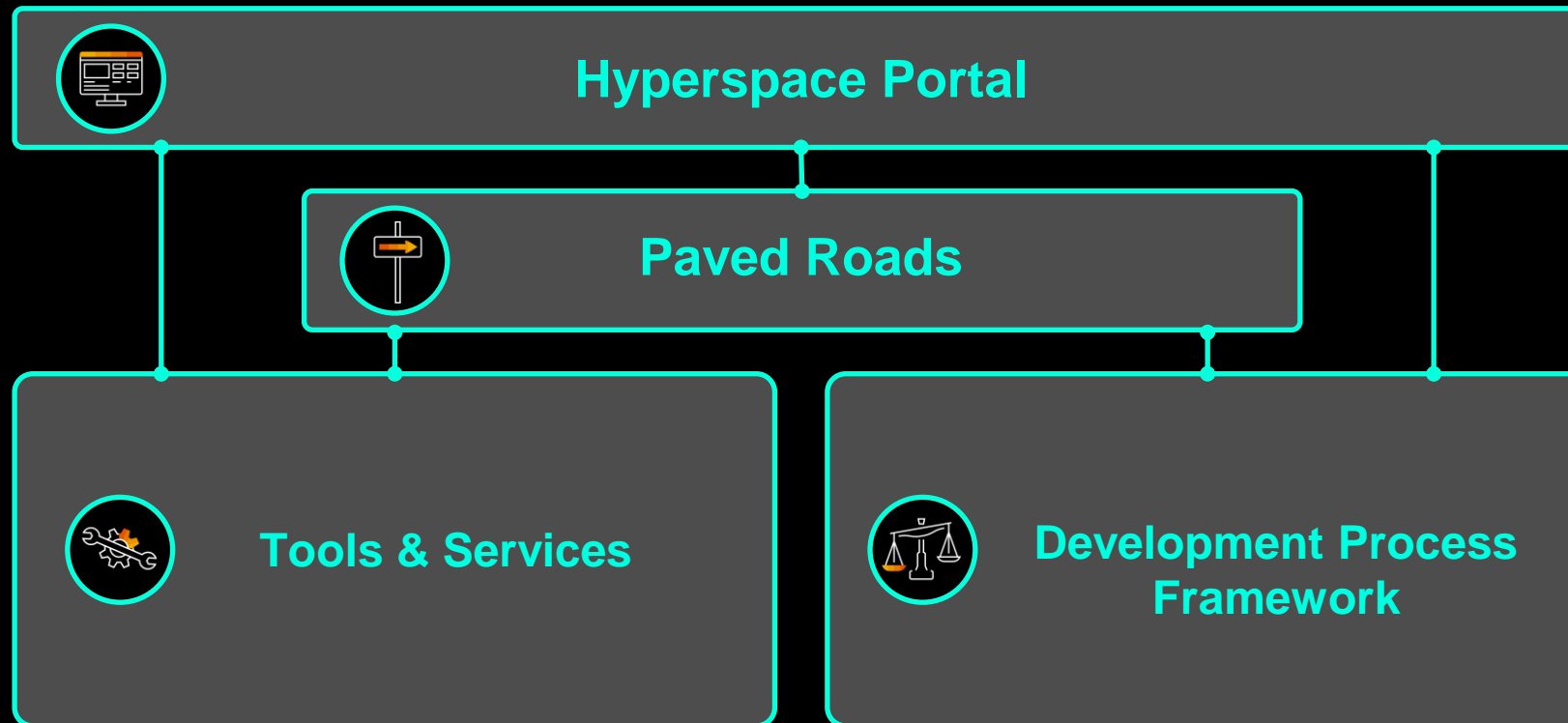
Guidelines

“Good developer experience allows for shift left”

James Governor, Analyst and Co-Founder RedMonk

Source: <https://redmonk.com/jgovernor/2022/02/21/what-is-developer-experience-a-roundup-of-links-and-goodness/>

Hyperspace: SAPs internal CI/CD platform



Paved Roads – Basic building blocks



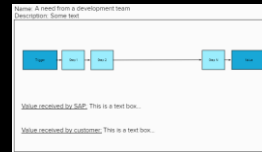
Development
Procedures

*“Things an engineering team
needs to do, in order to ship
software at SAP”*

Paved Roads – Basic building blocks



Development Procedures



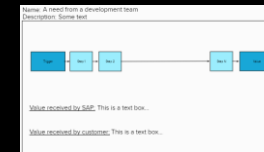
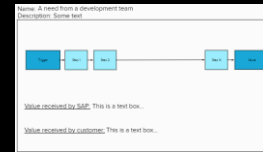
Trigger: *“I want to use an Open Source library in my application”*

Value: *“Faster mean time to ship code, while staying compliant and secure.”*

Paved Roads – Basic building blocks



Development Procedures



Trigger: *“I need to manage and share my team’s backlog”*

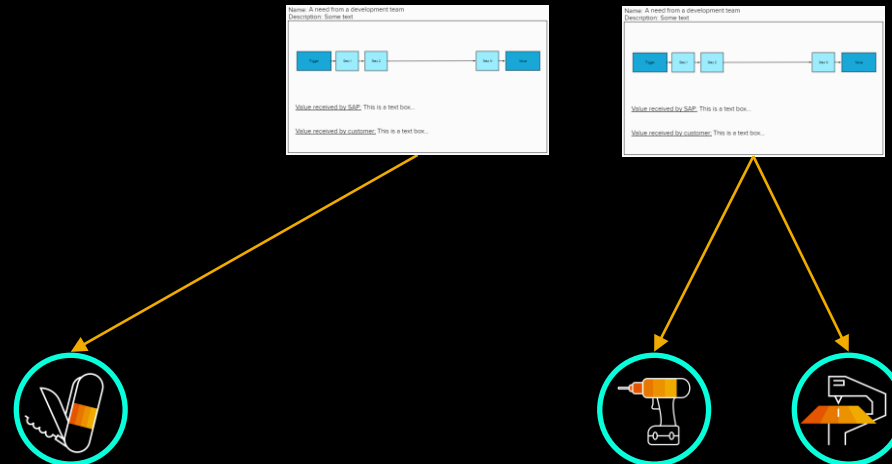
Value: *“Transparency on work and deliveries”*

Paved Roads – Basic building blocks



Development
Procedures

Tools and
Services



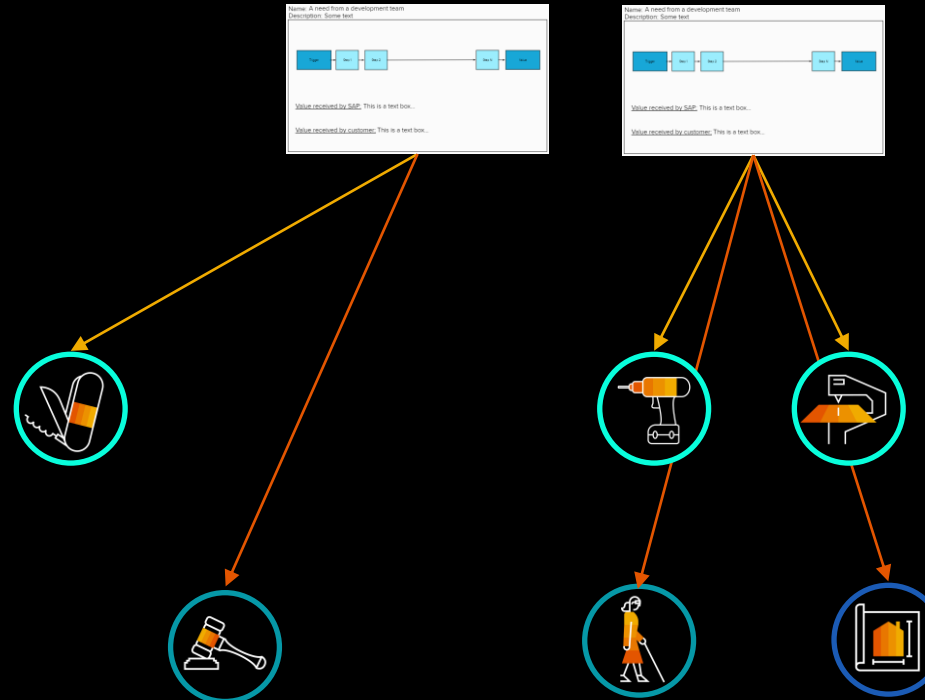
Paved Roads – Basic building blocks



Development
Procedures

Tools and
Services

Requirements
and Guidelines



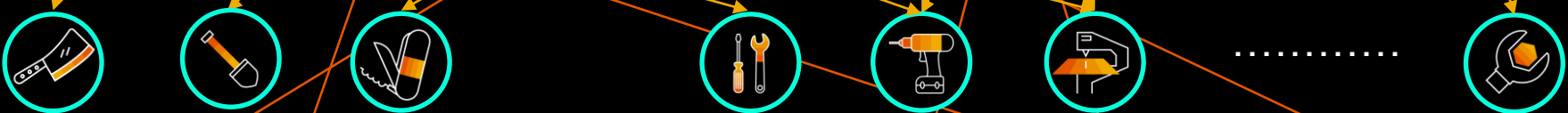
Paved Roads – Basic building blocks



Development Procedures



Tools and Services



Requirements and Guidelines



Value Streams everywhere



Hyperspace Academy
Home Hyperspace Paved Roads Decision Helps

Hyperspace Paved Roads
Paved Roads Library
SAP BTP & Deploy with Confidence
Use case example
Development Procedure Library
Use Free and Open-Source Software
Storing the Software Bill of Material
Ensure Export Compliance
Setting Up CI/CD Pipelines
Productive Build
Static Application Security Testing
Deploying Artifacts
Corporate Requirement FC-1 "Coding Rules"
Corporate Requirement FC-2 "Test of new Functionality"
Documenting Release Decisions
Manage Team Backlog
Functional Testing
Deliver Software via Microdeliveries
Releasing a Feature
Storing Compliance Artifacts
Roles and Permissions

Hyperspace Paved Road Development Procedures

Describe only one thing, but describe the best way how to do it

Development teams have many tasks to fulfill in order to ship cloud software at SAP. From technical tasks like coding, building, testing, deploying, ... to bureaucratic tasks like export compliance, licensing and many more.

With Development Procedures we describe small, self-contained tasks, based on best practices, that provide clear guidance on how to fulfill those tasks.

It's actually a value stream

Development teams have many needs for which they seek the best fitting solutions. It's not about tools or services. It's about value.

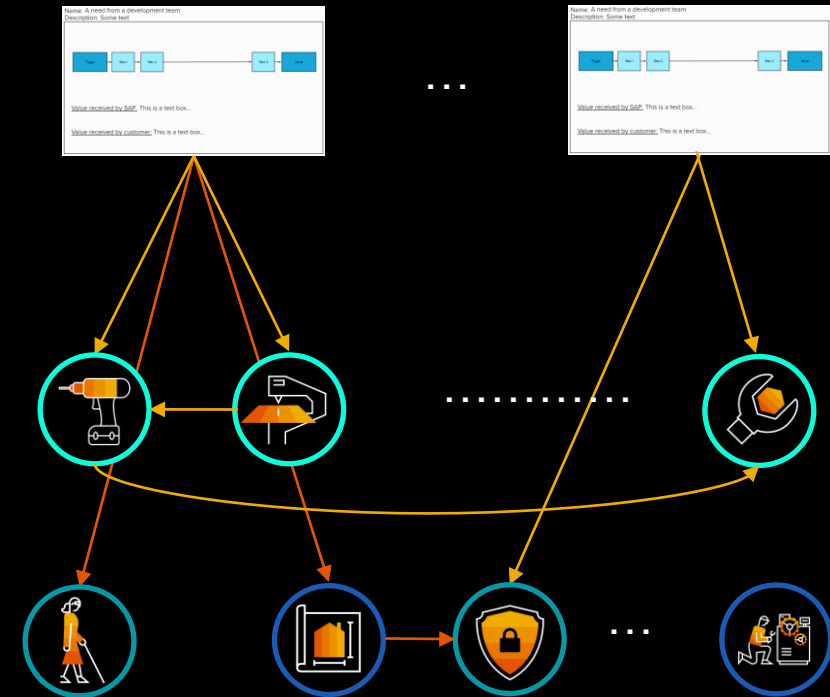
With Development Procedures we try to understand what triggers teams to do certain tasks, and what are the steps they need to perform in order to achieve a desired outcome (or value). This systemic end-to-end view of a development team's task can be modeled as a value stream, which is the core of a Development Procedure.

A zoo of tools, processes and guidelines

Development teams often have multiple tool or service options to follow a process or fulfill a

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Describe only one thing, but describe the best way how to do it
It's actually a value stream
A zoo of tools, processes and guidelines
The sum is greater than its parts
Available Hyperspace Paved Road Development Procedures:

What the engineering teams see



What we as platform provider see

What's **next** on the **Paved Roads**?



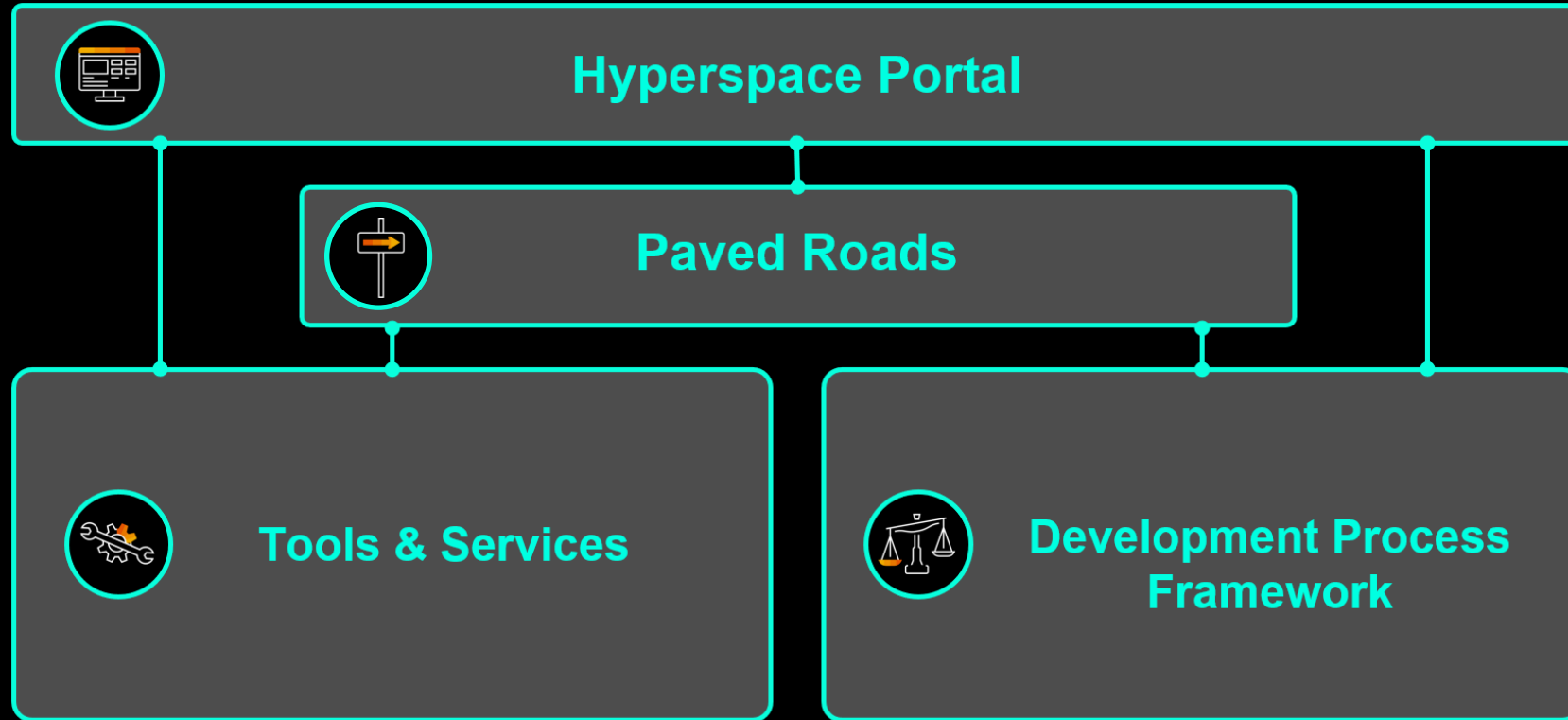
- **Add more Development Procedures**
 - Extend the scope
 - Keep the total number of Development Procedures as minimal as possible
- **Add more Paved Roads**
 - Context specific for the various technology stacks and programming languages
 - Reuse the existing Development Procedures to build new Paved Roads

Learnings on creating the Paved Roads?



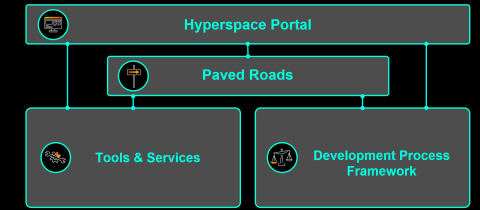
- **Limit your scope, otherwise complexity will kill you**
 - Divide and conquer
 - Make the first scope as narrow as possible
 - Seek for transparency, not adoption
- **Start with the as-is situation**
 - Improve with later version(s)
- **Clear ownership**
 - Who drives optimization?

Learnings on our CI/CD Platform



Learnings on our CI/CD Platform

- **Never, ever mandate the platform**
 - It kills innovation
 - Breaks and honest feedback loop
- **Put responsibility for larger value stream parts into one organization**
 - Distributed ownership causes (unnecessary) friction
- **Paved Roads / Golden Paths are your friend**
 - Get a systemic view
- **It's a marathon.**
 - It takes times to change status quo.
- **Tell your vision as a story**
 - People see/hear/understand in different way
 - Align mental models



Thank you.

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