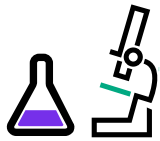


# FROM DATA ANARCHY

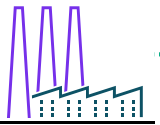
Data in silos  
No alternatives to public cloud  
Stuck in proof-of-concepts  
No scalable architecture



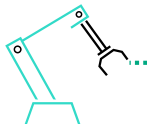
Office data



R&D data



Distributed sites



Machine Connectivity

Hybrid +  
Multi-Cloud



Data Fabric to  
unify data silos



Streaming +  
static data



Collaboration  
+ secure sharing



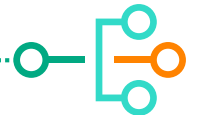
Modular + flexible  
architecture



Self service data access



Visualize Insights



Access- and  
management APIs

# AI-DRIVEN DATA CENTRIC ARCHITECTURE



Industrial  
Service Bus



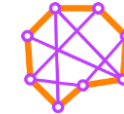
Data Governance  
+ Access Control



Data Catalogue  
+ Glossary



Data transformation  
+ normalization



Artificial Intelligence  
+ MLOps

HPE GreenLake Cloud Services

Improve OEE  
Increase productivity  
Accelerate innovation  
Reduce waste

**TO FULL DATA  
CENTRICITY**



**Hewlett Packard**  
Enterprise

# Unlock the Value of AI with a Data-Centric Architecture

Iveta Lohovska

Principal Data Scientist / Lead AI Architect

April 2023

# COMMON OBSERVATIONS IMPLEMENTING AI PROJECTS



**Complex approval processes**

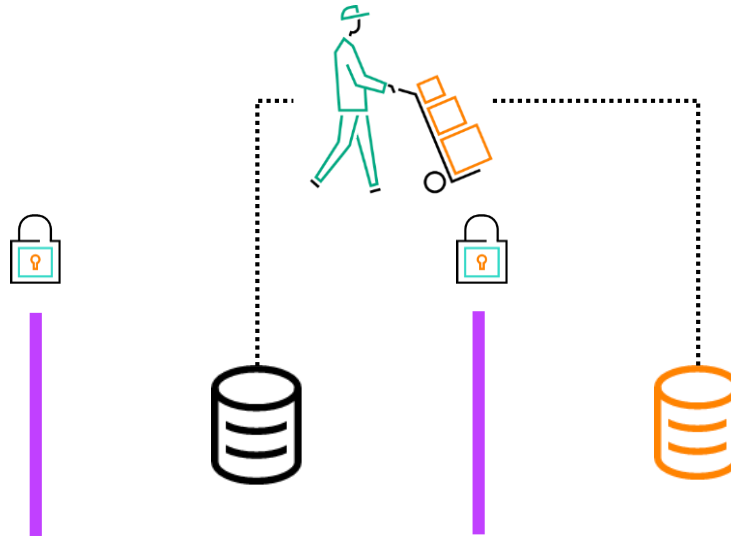


**No data governance**

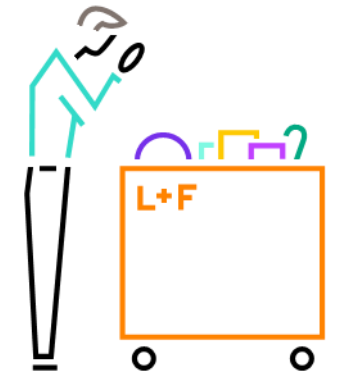


**Data not accessible**

**Manual data transport**

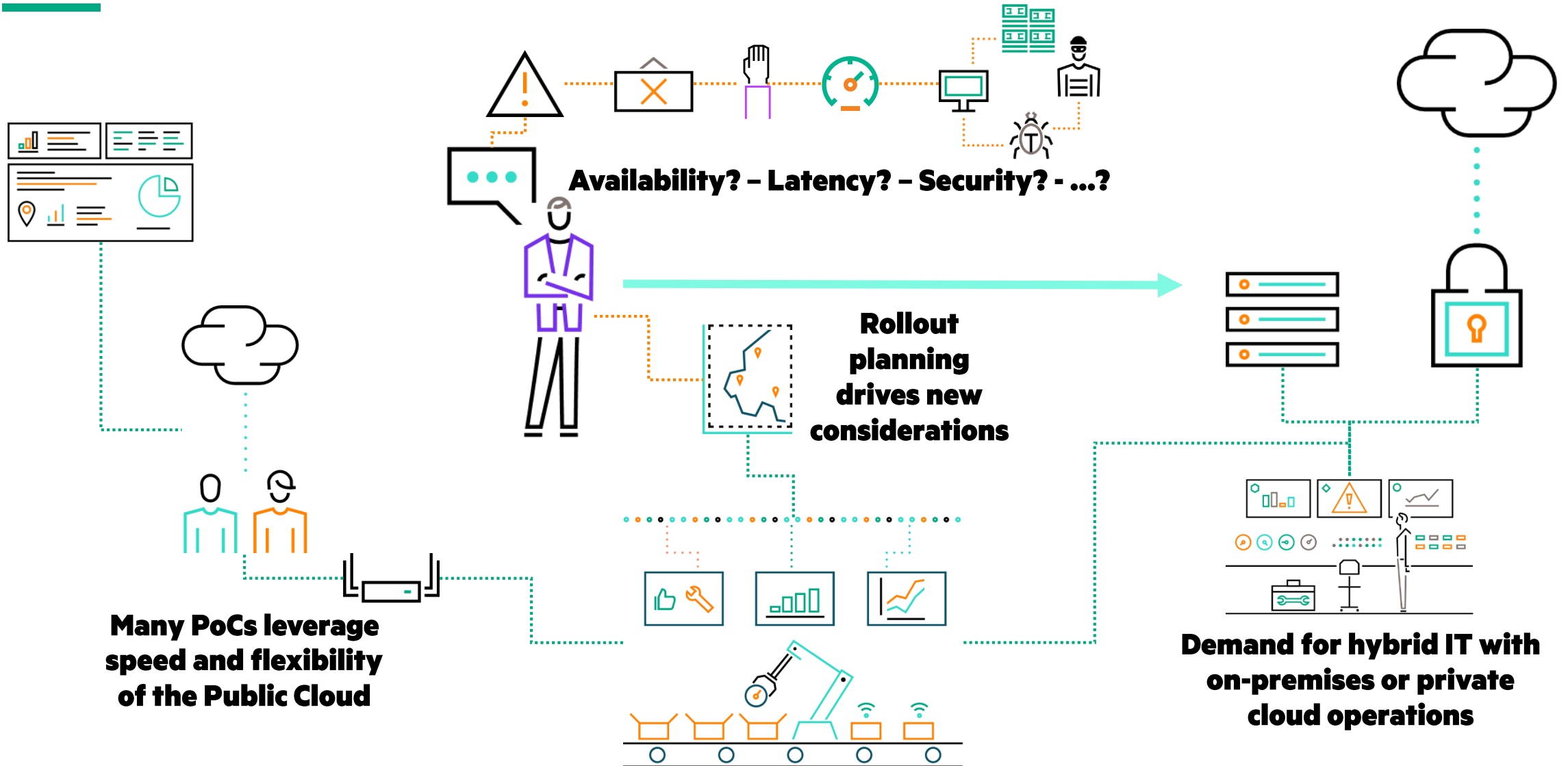


**Data stuck in silos**

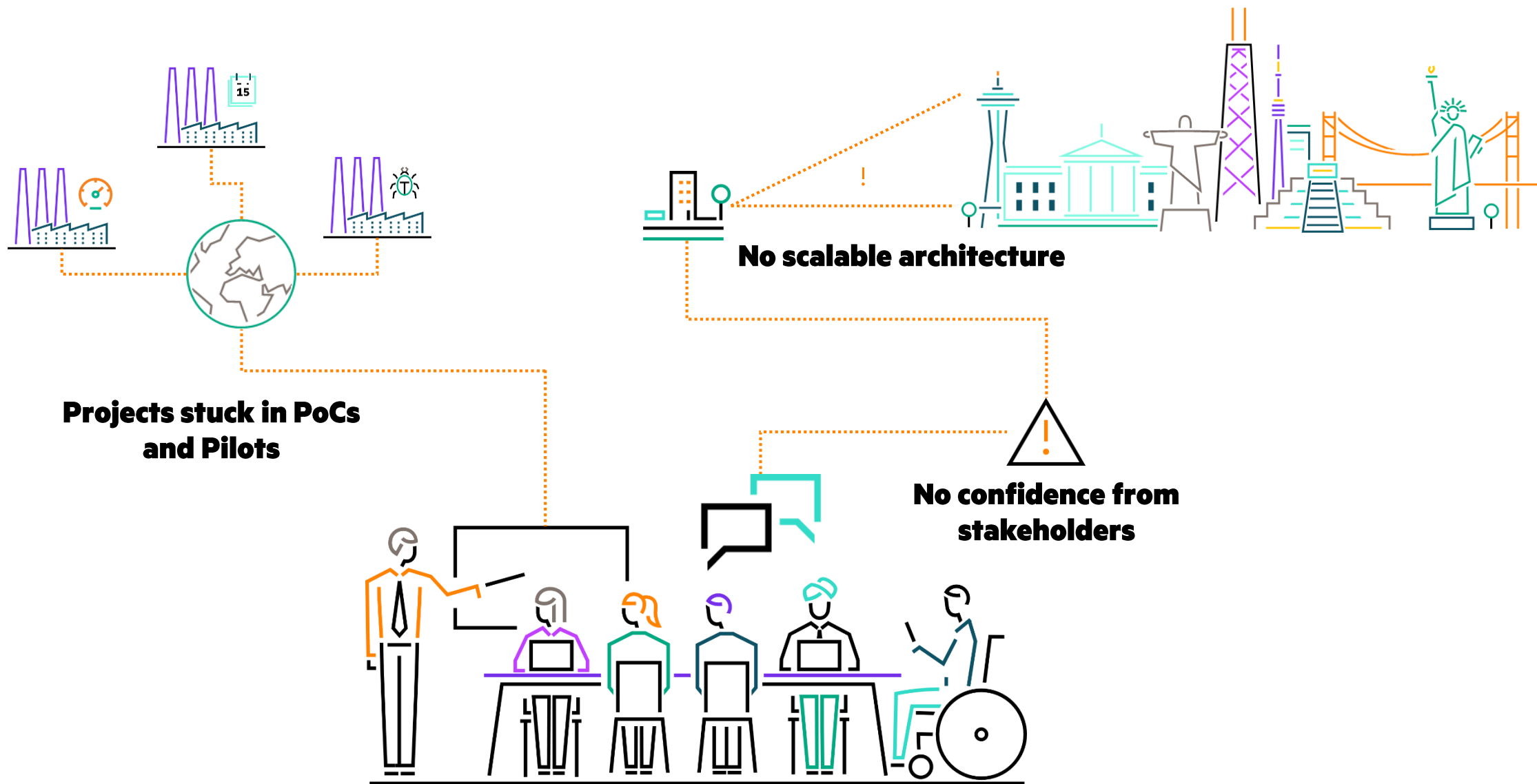


**Searching your data lake**

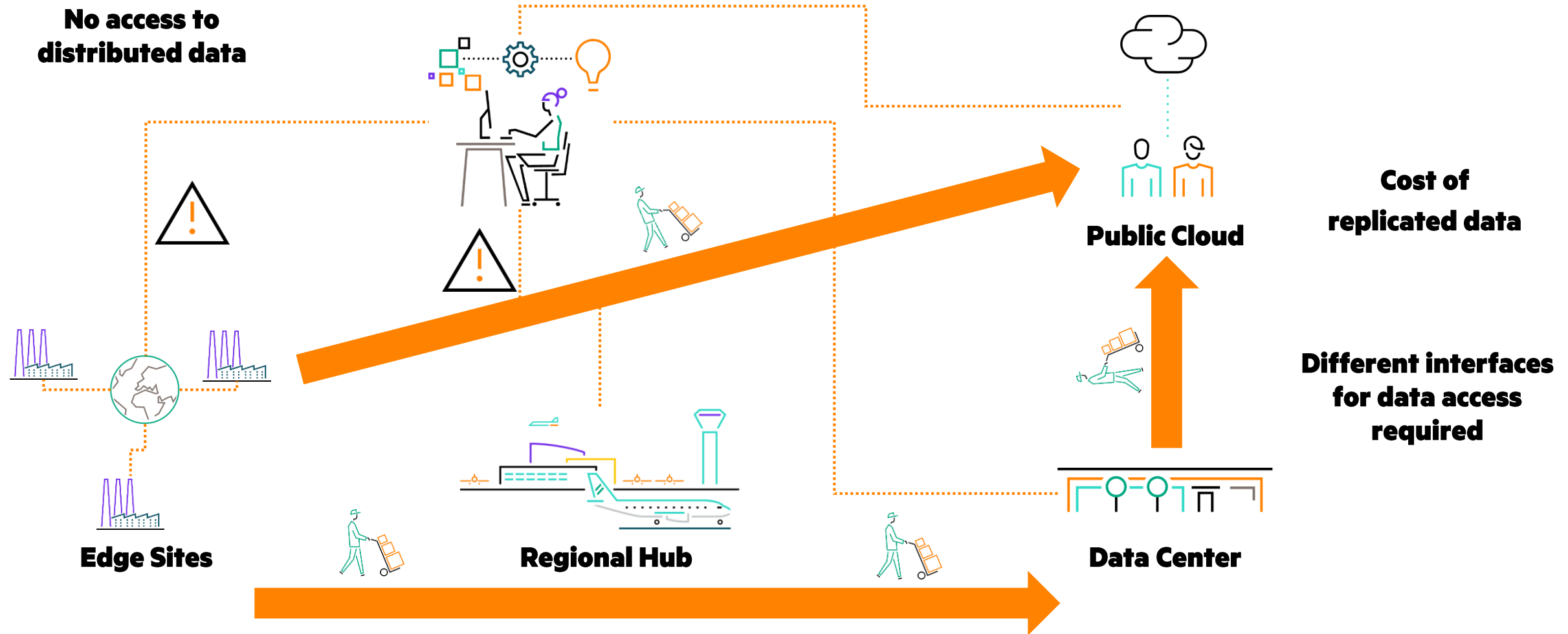
# COMMON OBSERVATIONS IMPLEMENTING AI PROJECTS



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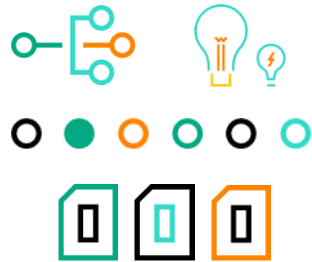
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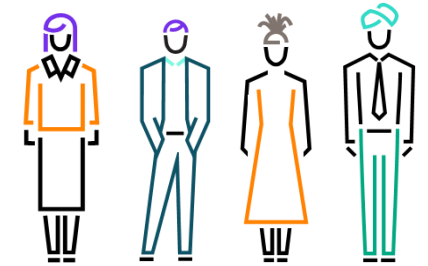
**Analytics workflows  
build on multiple  
open-source tools**



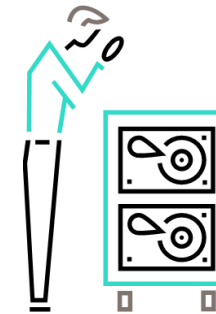
**Large cluster of  
underutilized  
infrastructure**



**Missing support for  
open-source tools**



**No distributed or  
multi-user access**



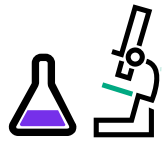
**Missing reproducibility  
of workflows**

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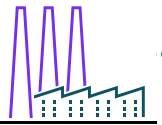
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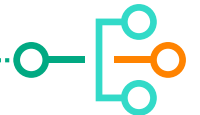
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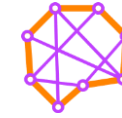
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HPE GreenLake Cloud Services

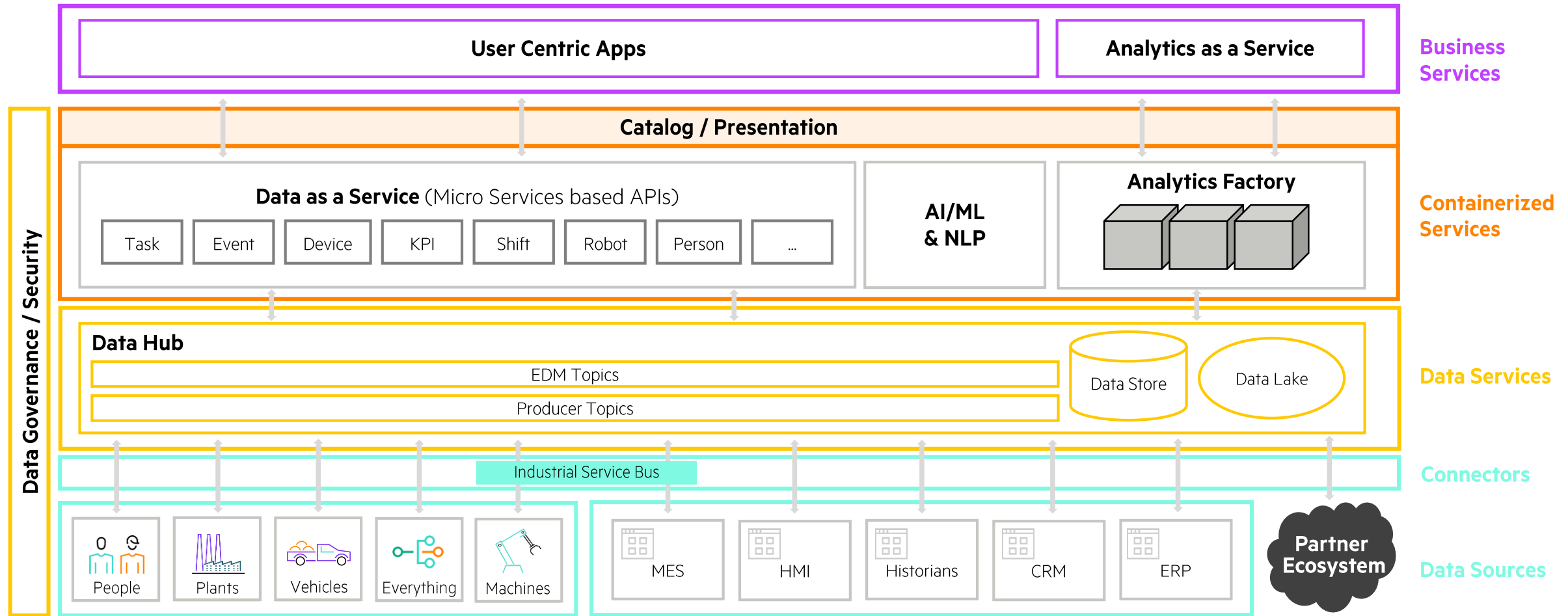
Improve OEE  
Increase productivity  
Accelerate innovation  
Reduce waste

**TO FULL DATA  
CENTRICITY**

CONFIDENTIAL | AUTHORIZED



# Data Centric Architecture for AI Use Cases





## Advance Wave Energy

---

- **Petascale cluster to study the rhythms of nature**
- **Create submerged structures to harness wave energy**
- **Test the buoy structures virtually and deploy in the ocean**

Reinforcement  
Learning applied

**+15%**

energy capture  
efficiency

## Advance Wave Energy

---

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Selected for EuropeWave Phase 2 winning PCP Contract



Reinforcement Learning optimizing the position and rigidity



Real-time inference with RL models integrated at the edge buoy systems



Moving R&D efforts from Hewlett Packard Labs to real world with HPE AI COE



**ALEPH ALPHA**

## Multimodal AI

- **Process, analysis, and production of accurate language models**
- **Establishing global context and cross-media reasoning**
- **Natively support the top five European Union languages**

Training 200B parameters in  
**90%**  
fewer facility needs than existing setup

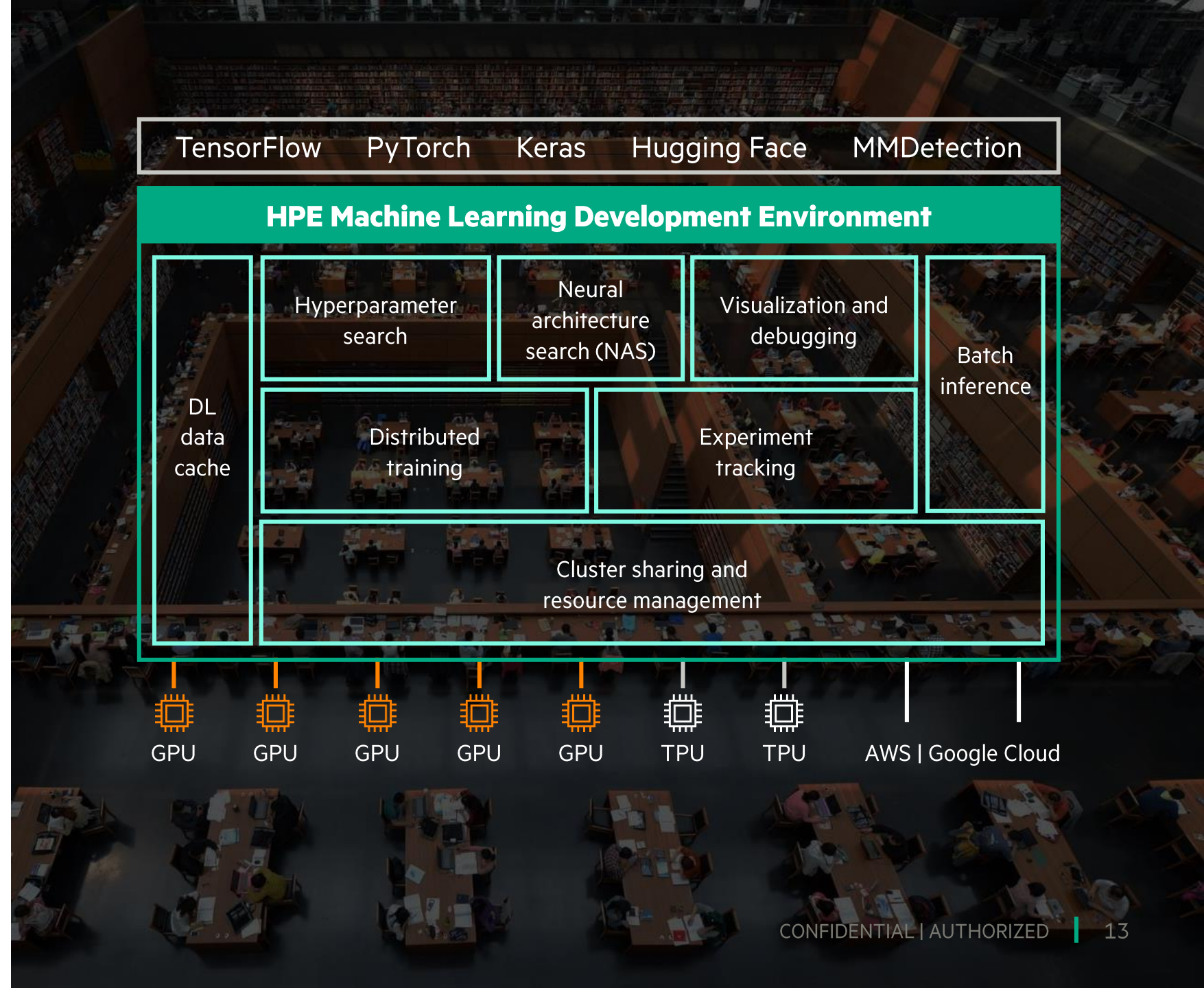




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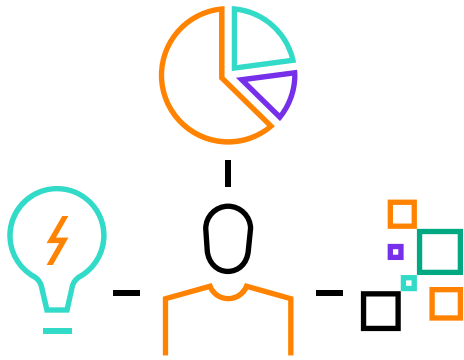


# HPE AI services models

Tailored experience to overcome AI barriers

## WE BUILD

HPE develops and deploys the AI solution end-to-end



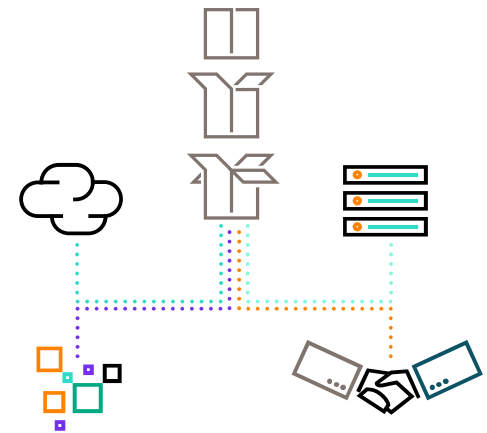
## WE OPTIMIZE

Bring your own AI model



## WE INTEGRATE

Solution built with our Partners



Advise & Align

Assess & Analyze

Plan & Design

Build & Implement

Enhance & Optimize

Operate & Manage

# Thank you

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[iveta.lohovska@hpe.com](mailto:iveta.lohovska@hpe.com)