

# SIT 2023

— Streamlining Complex Scenarios with SAP  
Business Technology Platform





# Gregory Doukas

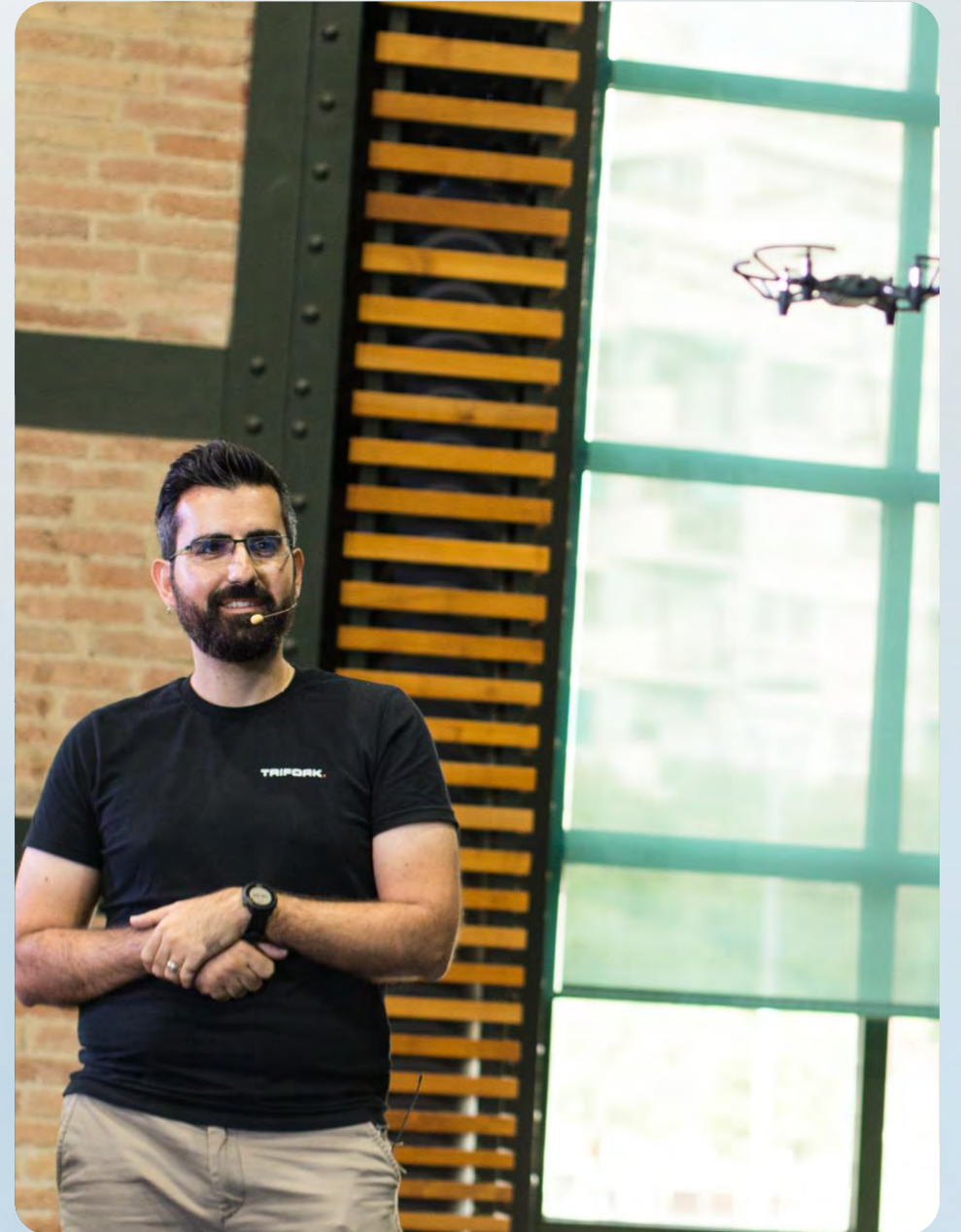
CTO at Trifork Barcelona – [gdo@trifork.com](mailto:gdo@trifork.com)

- 15+ years' experience in SAP
- ± 9 years in SAP Cloud
- Masters in Artificial Intelligence
- Greek, South African living in Barcelona

Enjoy **running** and  
**hiking**

**Gamer** at heart

**2 daughters** (1 and 5  
years)



# Agenda

**16:45**      **Introduction**

Trifork: who we are and what we do

**16:55**      **Complex scenarios with BTP**

What do you do when “standard” is not enough? We explore the need of choosing the right-tool for the job running on BTP

**14:05**      **Demo**

React, ML, OpenAI and more...

**14:10**      **Conclusion**

Key-takeaways and Q&A





A person wearing glasses is sitting at a desk, looking at a laptop. They are also holding a smartphone in their hands. A cup of coffee is on the desk next to the laptop. The image is dimmed and has a blue tint.

**TRIFORK.**



# Trifork Group

## Trifork



FinTech



Digital Health



Smart Building



Smart Enterprise



Cyber Protection



Cloud Operations

## Trifork Labs

### Trifork's R&D

- Founding & financing of start-ups
- Minority investments
- Investment criteria:

New  
technology

Potential to  
become  
business drive

Potential to  
become  
strategic partner

# Our references



Schindler



MAERSK



PORSCHE



ROCKWOOL®



ENERGINET

e.on



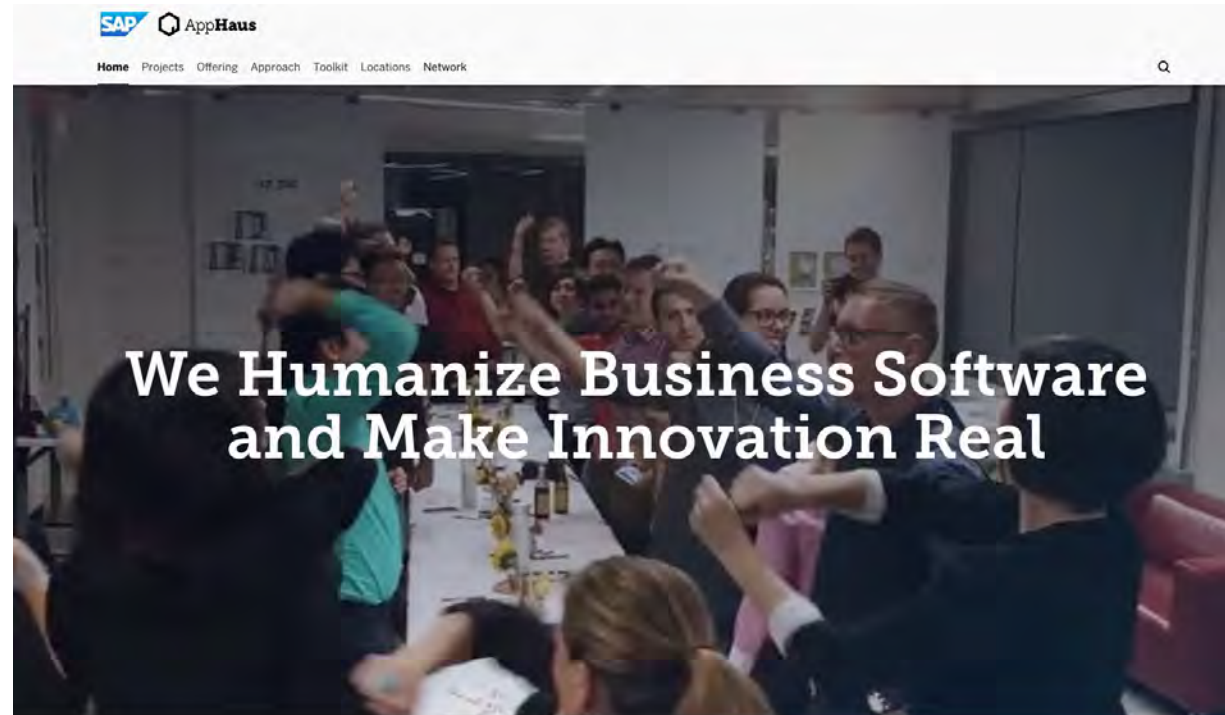
VIKING  
LIFE-SAVING EQUIPMENT

# Partnerships





# Members of the SAP AppHaus



## Our Mission

We apply SAP's **Human-Centered Approach to Innovation** to transform **business data into customer value** with the help of **SAP Business Technology Platform**.



Innovation can only be achieved if it is **desired by people, economically viable, and technically feasible**.

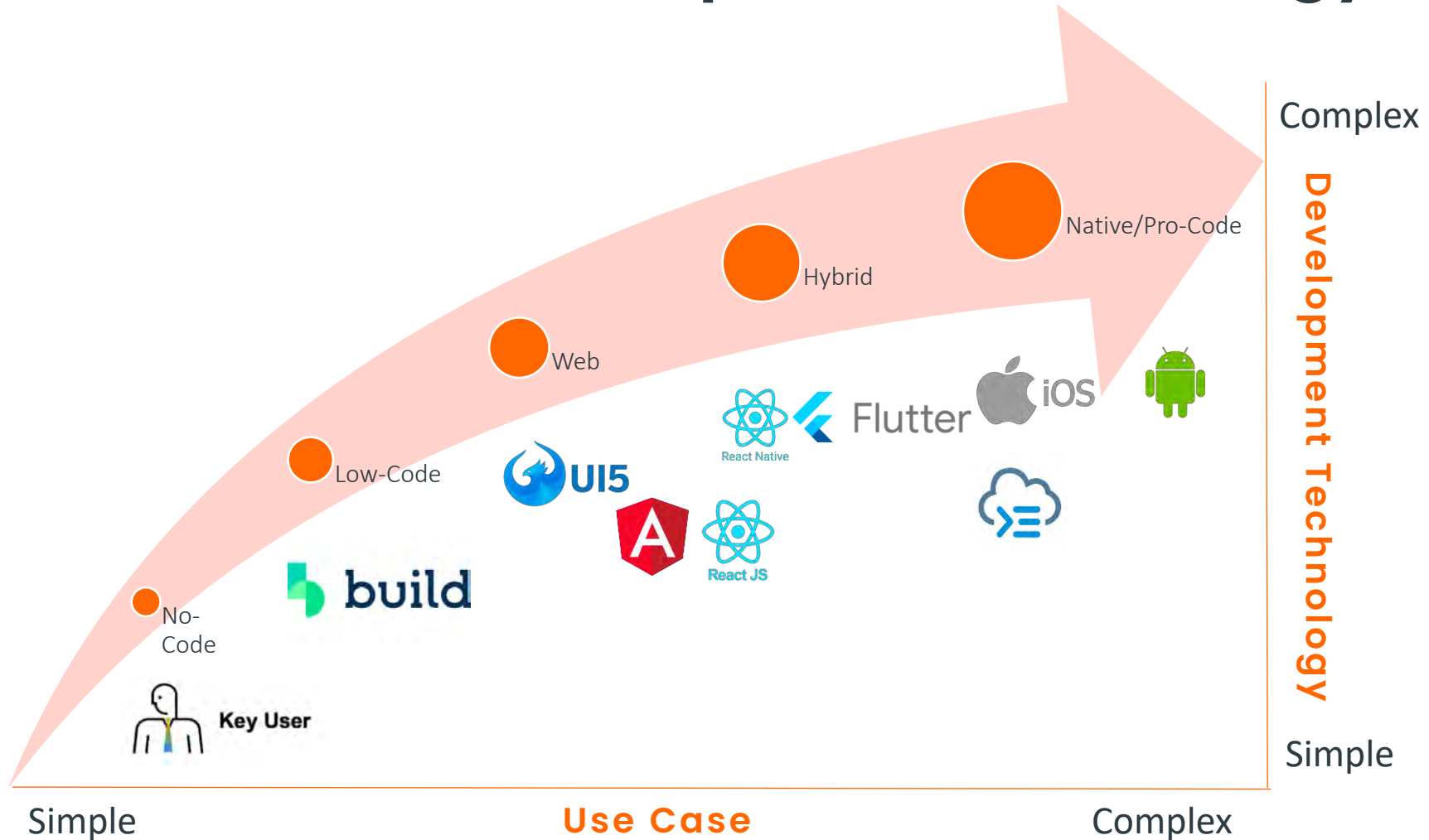
With our **Human-Centered Approach to Innovation**, we are able to balance the interdependencies of the three factors and create business value for our customers.

We enable them to react with agility to market demands and create a foundation for continual innovation with **SAP Business Technology Platform**.

# SAP BTP for complex scenarios

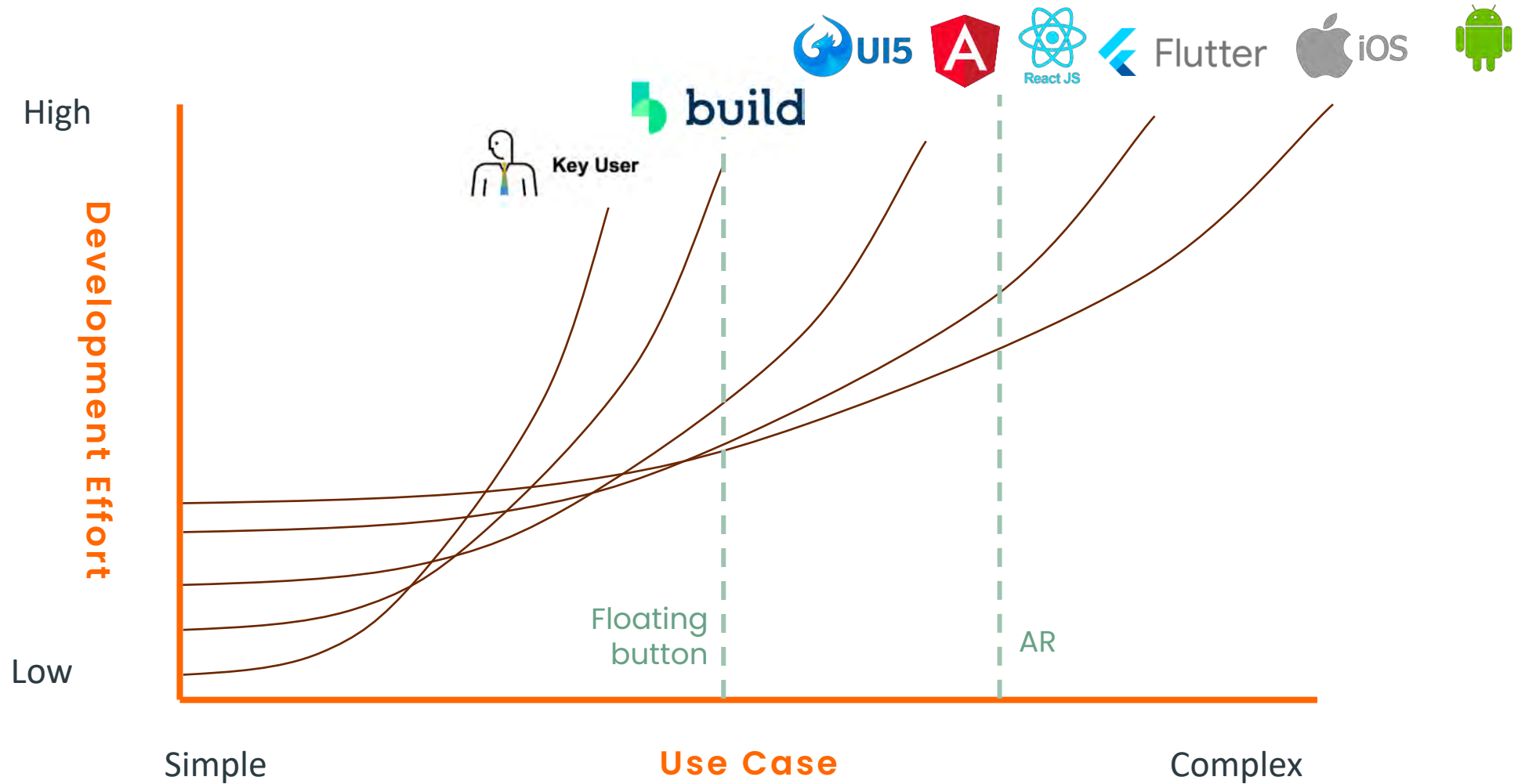


# Use case vs Development Technology





# Effort of Development & Maintenance



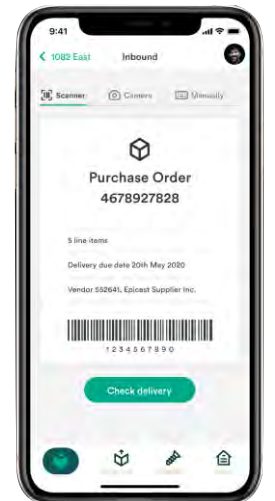
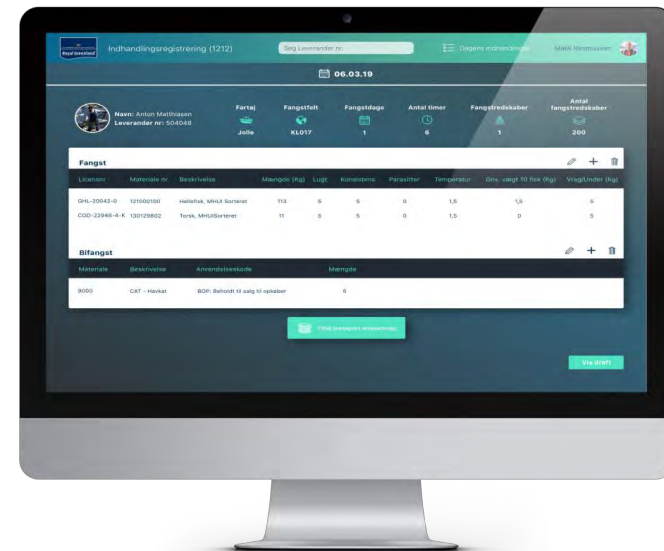
# Pro-Code in SAP BTP

- We have 3 Runtimes: Cloud Foundry (CF), ABAP Cloud and Kyma
- This means you can Bring Your Own Language (BYOL)
  - Java, Node.js (CAP) are mainly supported in BTP CF
  - ABAP (RAP) in ABAP Cloud
  - Multitude of buildpacks on Cloud Foundry
  - With Kyma possibilities are endless
- Kyma is SAP's answer to Kubernetes
- Underpinned by BTP "foundational" services



# Pro-Code in SAP BTP: UIs

- SAPUI5 (Fiori) as the main UI tech on BTP:
  - Fiori Elements or UI5 webs-apps
  - SDK for iOS & Android for mobile development
- On mobile: develop using native iOS (SwiftUI) or Android (Material UI)
  - Can integrate with SAP Mobile Services for offline sync
- On web: any available frameworks: e.g., React, Angular, Flutter...
  - Hosted on SAP BTP as normal HTML5 apps
  - Can integrate with SAP Work Zone

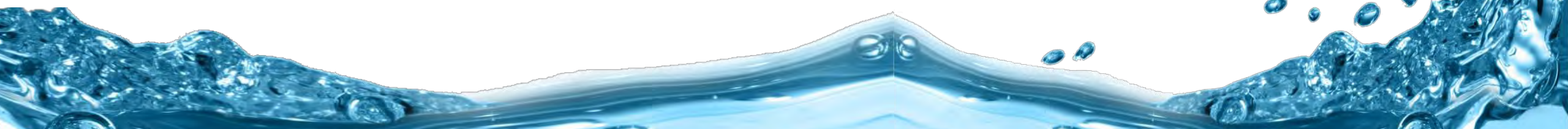






# Our Scenario

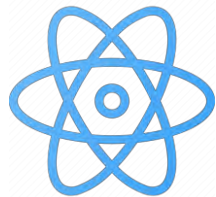
- A water distributor needs looking for operational excellence
- Water meters around Barcelona tracking usage
  - A custom ML model has been previously developed predicting daily consumption
  - Leak detection (actual out of acceptable variance)
- Monitoring of maintenance activities
  - Planned maintenance (routine checks)
  - Unplanned maintenance (ad-hoc, breakdowns, leaks, faults etc.)
- They need: A next-gen visual dashboard that quickly highlights areas of concern and create incidents. Highly performant and usable.
- Assisted analysis of problem and possible Root-Cause



# The solution

## Front-end Stack

- React
- react-map-gl
- UI5 web-components
- SAP integration
- Hosted on SAP BTP



## Back-end Stack

- Node.js with SAP CAP
- Propagate calls to S4
- Enrich data on the fly
- 3<sup>rd</sup> party API integration
- OpenAI integration

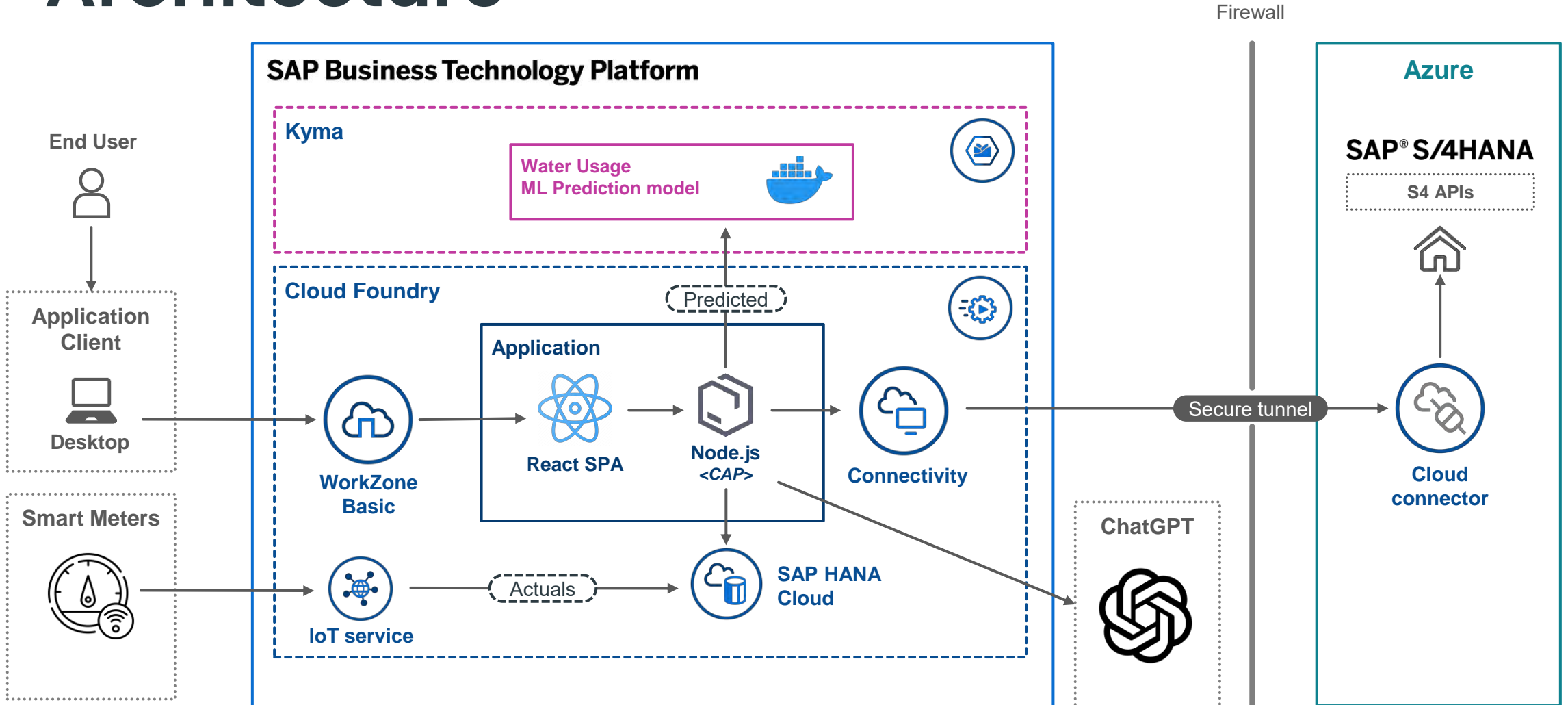


## ML Stack

- Existing ML model
- Lift-and-shift AI model
- BTP Kyma dockerization
- API consumed by CAP

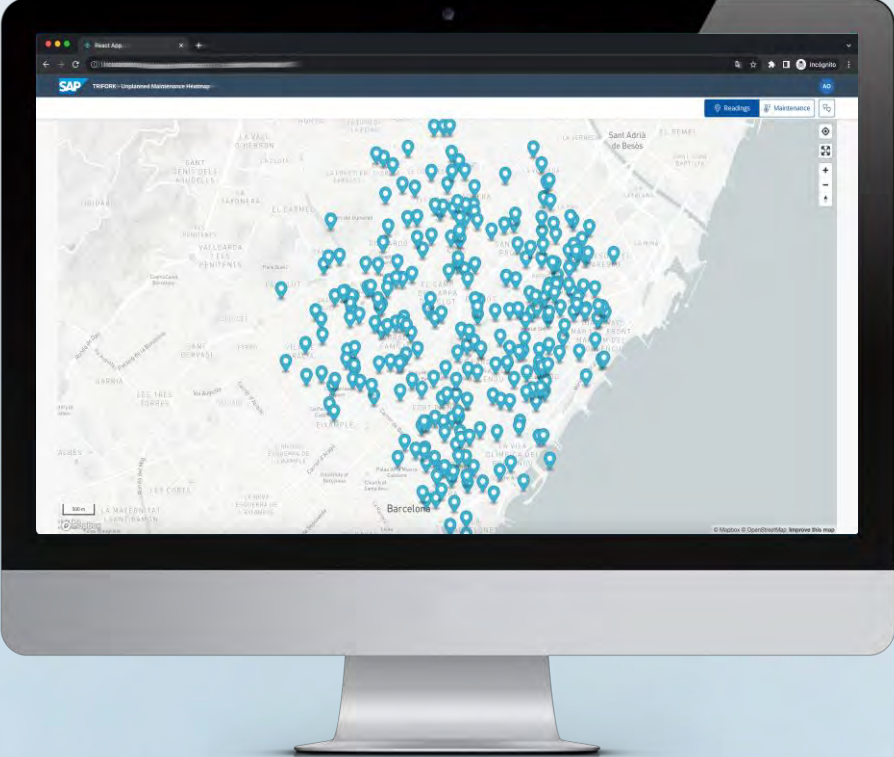


# Architecture

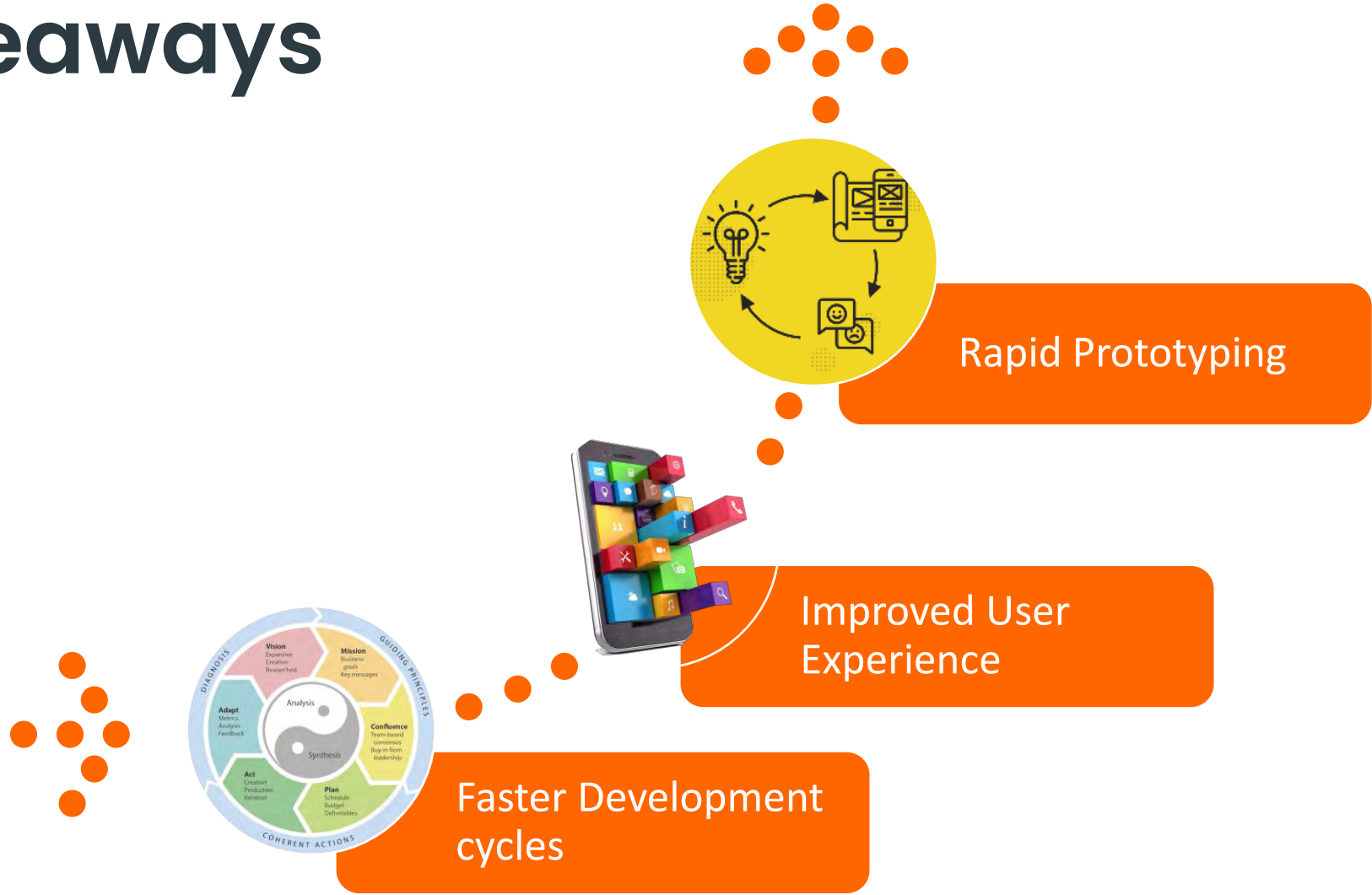




# DEMO



# Key Takeaways



Rapid Prototyping

Improved User Experience

Faster Development cycles

# Thank You!

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