



# Vehicle-to-Everything (V2X) Data Exchange Platform (DEP)



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# 1

## V2X Data Exchange Platform Concept

- V2X data platform:
  - ▶ Ingests data from **CAV devices** (roadside units (RSUs) and on-board units (OBUs))
  - ▶ Ingests data from **ITS devices**
  - ▶ Ingests data from **third parties**
  - ▶ Potentially interacts with **SunGuide®**
  - ▶ Allows data to be shared between computer programs, data systems, and users
  - ▶ Ultimate solution for data generated in all CAV projects in Florida



# 2

## Purpose and Need of the Platform



- Collect, manage, and store CAV data
- Coordinate with and integrate additional data sources and systems
- Normalize, filter, aggregate, and disseminate data
- Send and receive data from automobile OEMs (reduce OBU purchasing)
- Develop real-time and predictive analytics
- Leverage existing infrastructure
- Provide visualization

# 3

## V2X Data Exchange Platform Users



Districts



Traffic Engineers



University Researchers



AOEMs



Other FDOT Personnel



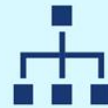
Cloud-Based Strategy



Device Drivers and APIs



Real-time and Predictive Analytics



Edge Computing



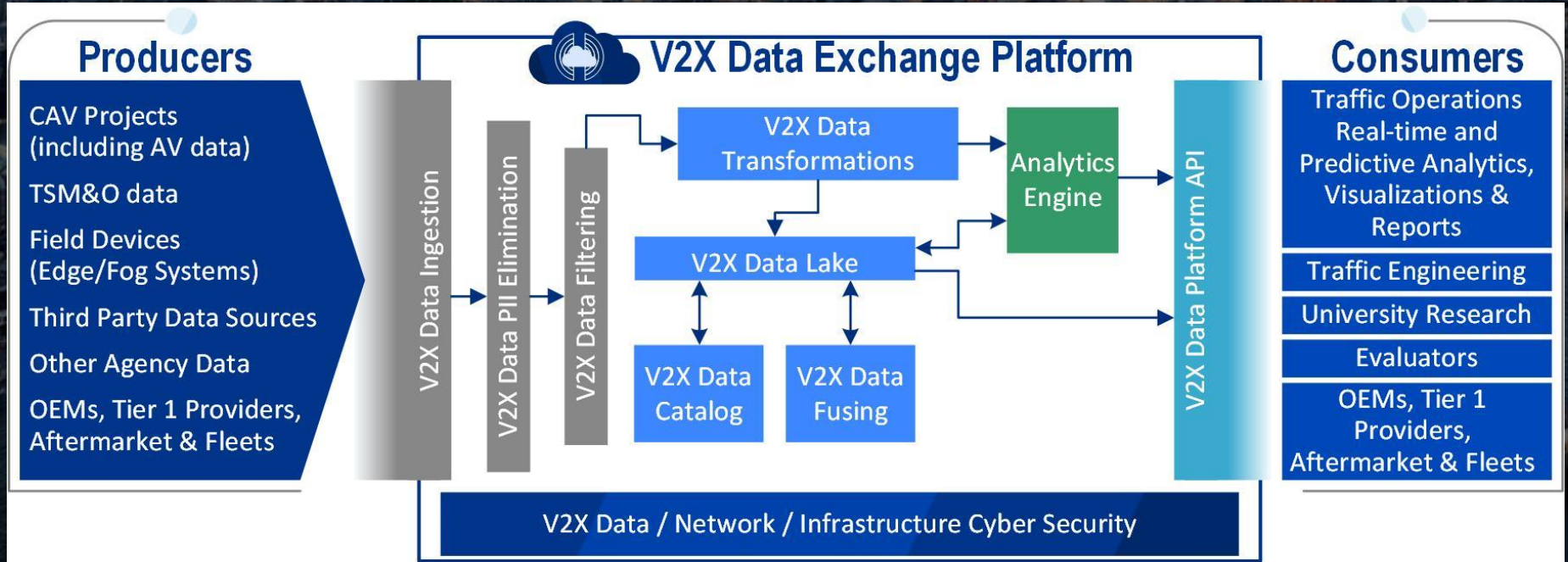
Requirements and Specifications



Open-Source and Open-Architecture Tools

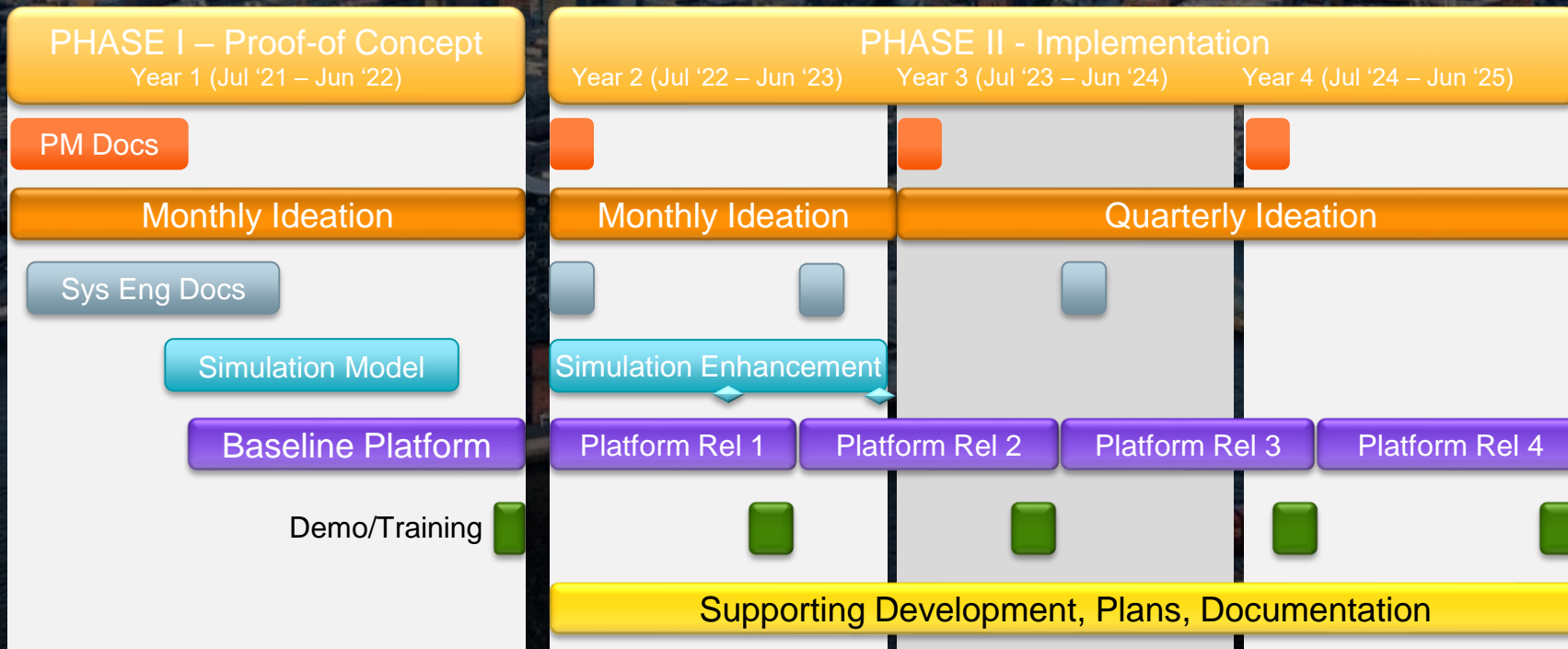
# 4

## Platform Architecture



# 5

## Project Schedule



# 6

## Implementation Team

Google

amazon

FORD MOBILITY

aws

SwRI®

K  
kodiak

iteris®

FIU





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