#### TATA ELXSI

# HOLISTIC SYSTEM ENGINEERING FOR ROBOTAXI APPLICATION

### **Application Scenario**

Using MBSE methodology for developing an autonomous feature like Robotaxi application

## Scope

- A holistic and disciplined approach
- Manage complexity between stakeholders
- Prepare a strong validation strategy using Model for virtual validation, i.e., before going into the development stage
- Moving to collaborative system engineering against federated system engineering
- Remain innovative through the system engineering lifecycle
- Ensuring regular system safety assessment (MBSE models will add value as an additional reference item for evaluation)
- Defining the scenarios for a successful acceptance of the autonomous car

#### **BENEFITS**

- Defects can be significant reduced as the system is relatively complex and novel
- Early validation through simulation
- Enhances collaborative working and faster execution between teams

