

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 development stage
- Moving to collaborative system engineering against federated system engineering
- Remain innovative through the system engineering life cycle
- Ensuring regular system safety assessment (MBSE models will add value as additional reference item for evaluation)
- Defining the scenarios for a successful acceptance of autonomous car

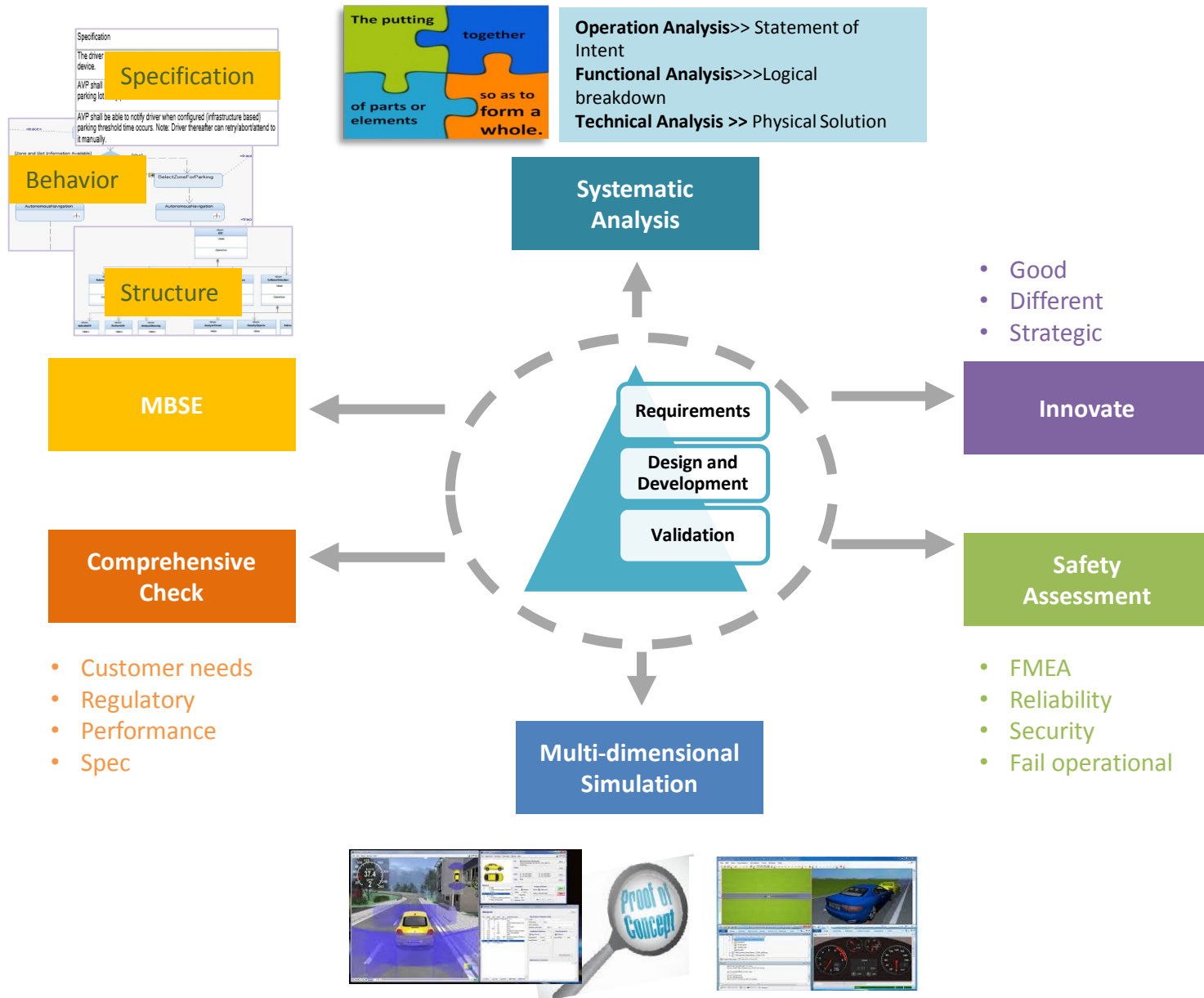


BENEFITS

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

System Engineering –

A holistic and disciplined approach is essential towards technical management of complex autonomous car.



- ### Building Blocks for L4 system engineering
- Collaborative engineering preferred against federated system engineering
 - Disciplined and systematic approach has to be followed
 - Approach should aid Logic intensive system development
 - Safety assessment at every step
 - Stronger and newer methods to validation essential
 - Multiple approaches to simulation required
 - Innovation inline with emerging technologies and legal policy