# **TATA ELXSI**

# eMOBILITY HILS VAAS

## Overview

Use case: 48V-12V DC-DC Converter ECU Validation for an

**Automotive Supplier** 

#### INPUTS FROM CUSTOMER

- Requirement specifications SW, Diagnostics, and Network
- Communication files DBC, A2L, etc.
- Device transmittal and I/O Characteristics
- Flashing procedure and associated tools
- Technical Safety Requirements
- DUT

## Savings due to e-Mobility Framework

- HILS set up and validation time for one SW drop:
  50% savings due to re-usable modules
- Percentage of reuse: Test cases (40%), Plant models (50%), and Test automation framework (90%)

#### HILS REUSABLE ITEMS

- Test Automation framework
- Generic test cases
- HILS HW
  - IO Cards
  - Power supply
  - FIU, Loads, etc.
- HILS SW
- Sensing circuits

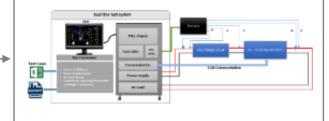
### HILS MODIFICATION

- Communication/ Rest bus simulation
- HILS Harness and IO model
- Tier one specific Test cases

## **DELIVERABLES**

- Final test cases, reports, bugs
- Updated plant models
- Log files

Updated eMobility HILS based on new requirements and ECU specifications from customer



### Savings due to e-Mobility HILS

 HILS HW cost: 74% Cost savings due to usage cost alone (against new HILS set up at customer site)