KPIT

22nd October 2019

One-click authoring meets Adaptive Autosar and HPC in Diagnostics

Why separately maintain ODX- and DEXT-Files?

Current Status → ODX AUTOSAR

Two departments using two toolchains

- (Aftersales-) Diagnostic with ODX
- ECU development with AUTOSAR.

Data Creation done by different persons at different points of time

Validation of implementation in ECU against Aftersales Tester

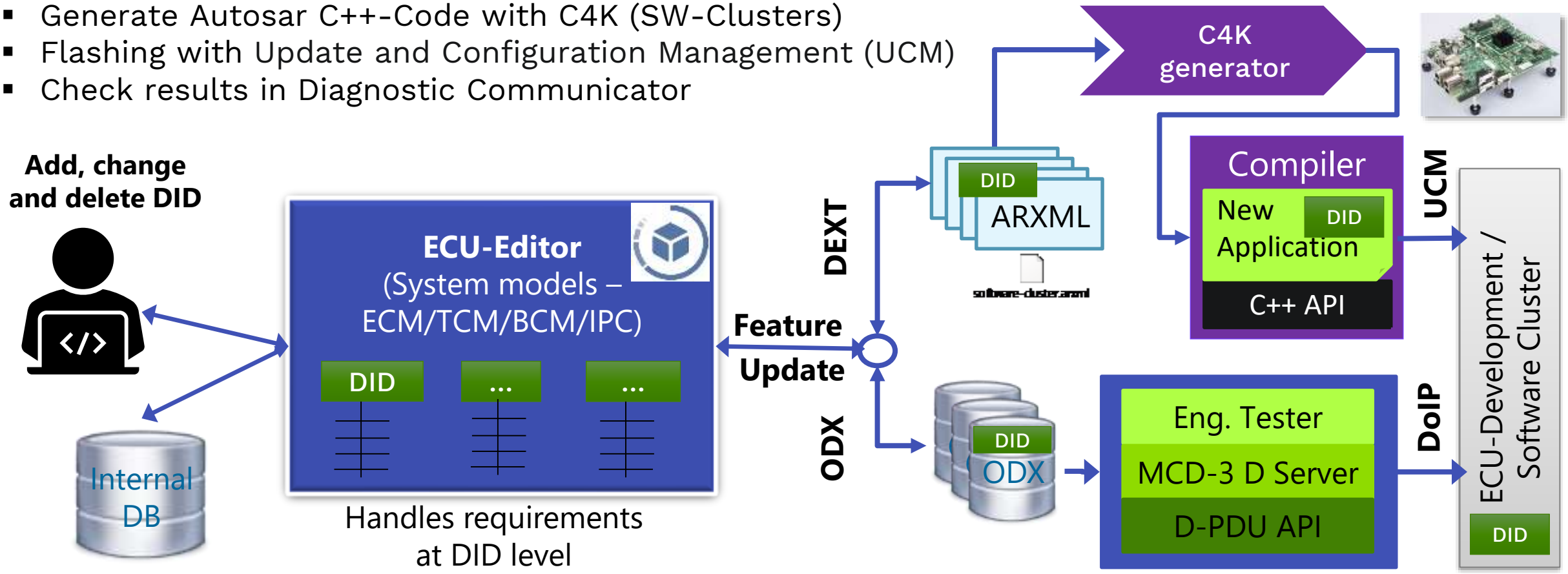
- Takes time
- Issues hard to fix

- Software Cluster DEXT creation using ECU Diagnostic Editor
- Offboard ODX generation using ECU Diagnostic Editor
- Diagnostic Manager Design & Implementation for communication with Adaptive Platform applications
- Variability and Variant-Management in one common Database with one Tool

AUTOSAR + Off board-Diagnostics with ‘One Click‘

Workflow

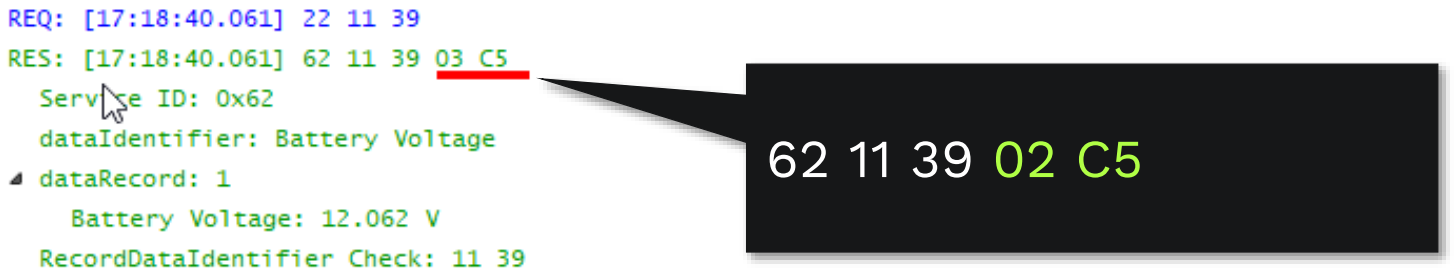
- Add, change and delete DID 0x1139 in ECU Editor
- Create ODX and DEXT
- Generate Autosar C++-Code with C4K (SW-Clusters)
- Flashing with Update and Configuration Management (UCM)
- Check results in Diagnostic Communicator



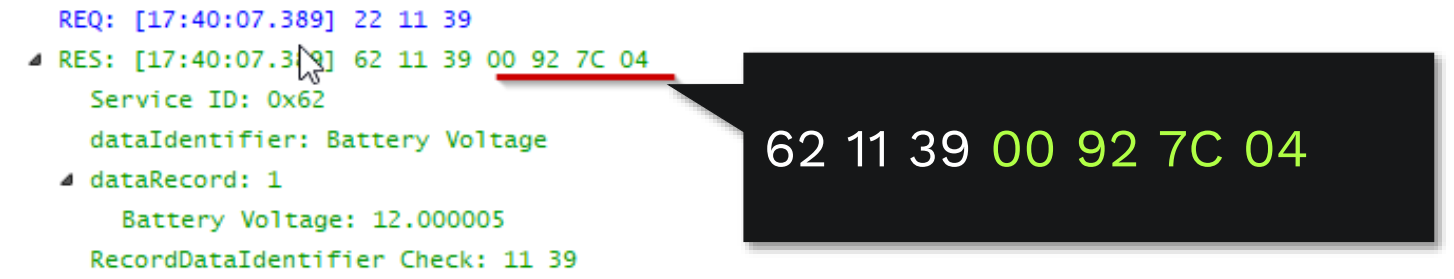
What can an engineer do in 15 Minutes in AUTOSAR and ODX?

USE CASES

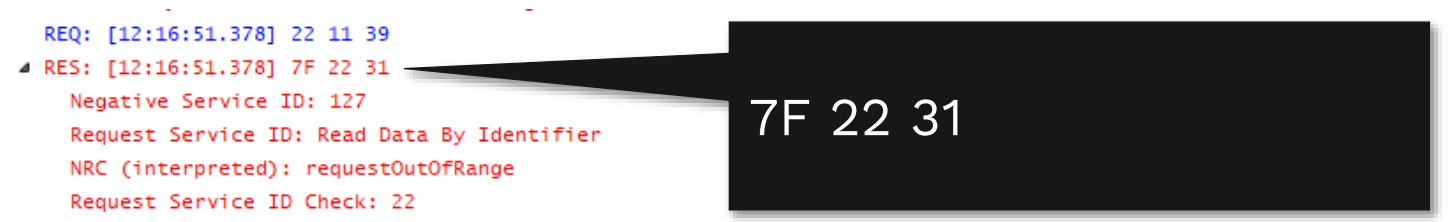
1) Create DID 0x1139 for Battery Voltage with 2 Byte-DOP (Low Resolution)



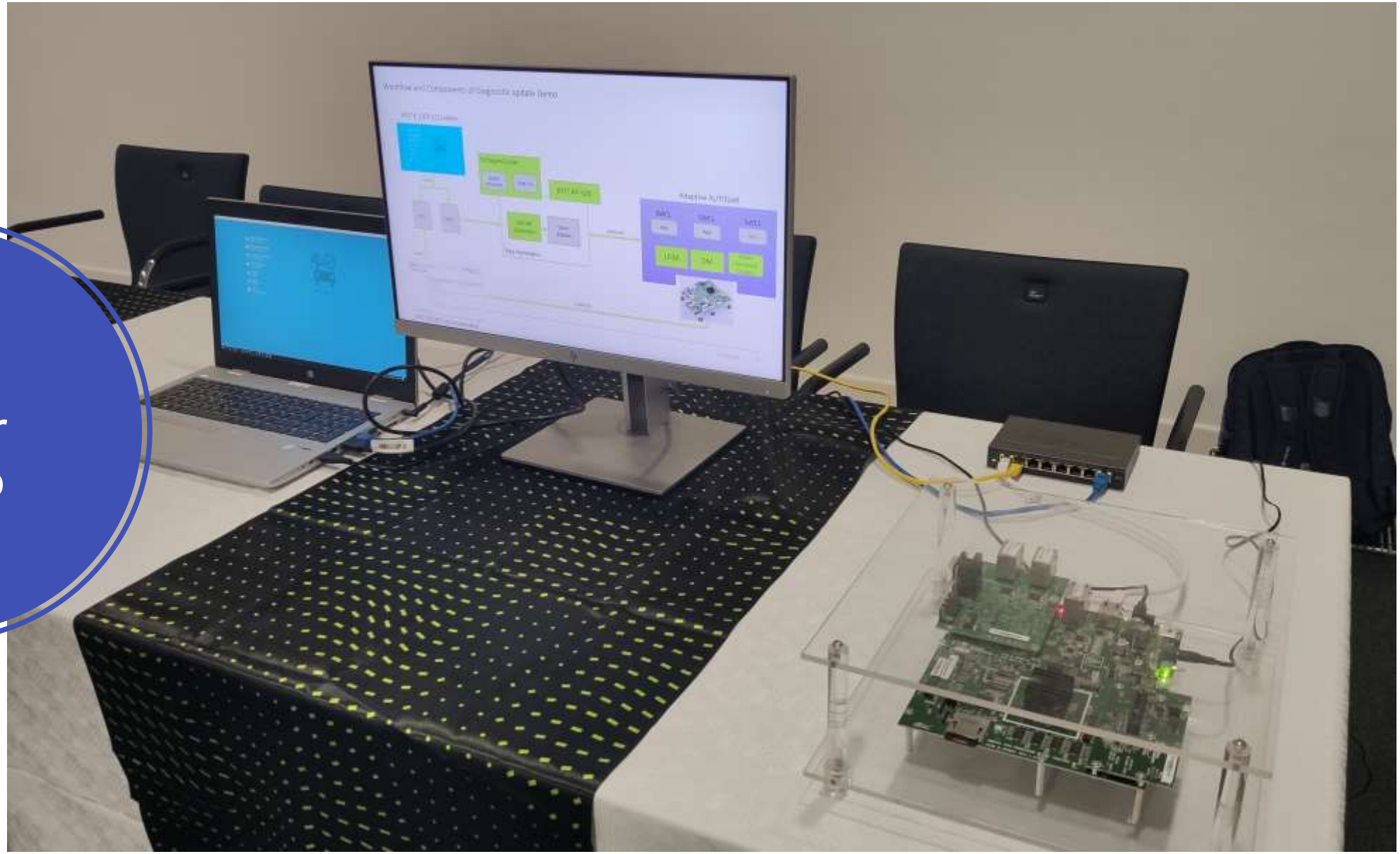
2) Change DID 0x1139 for Battery Voltage to 4 Byte-DOP (High Resolution)



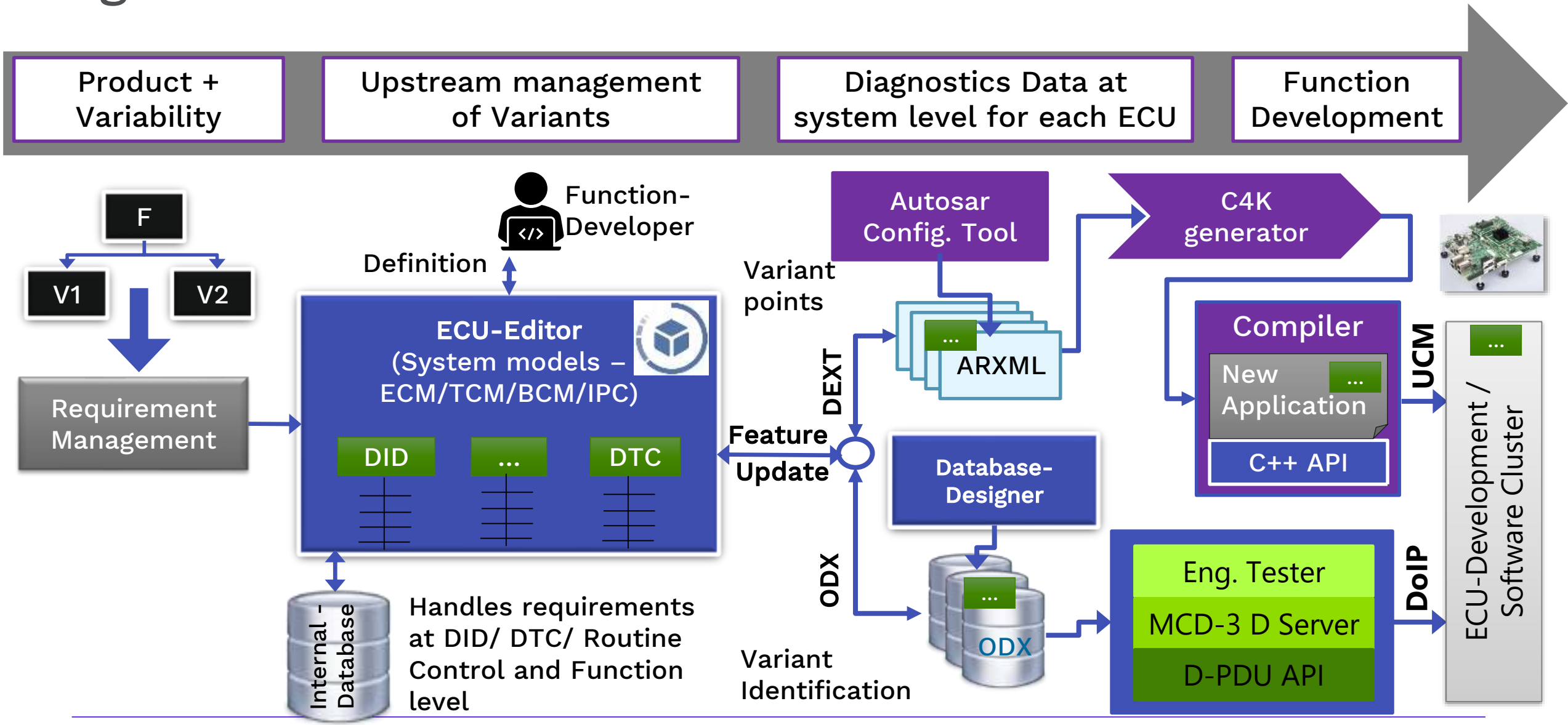
3) Delete DID 0x1139 for Battery Voltage



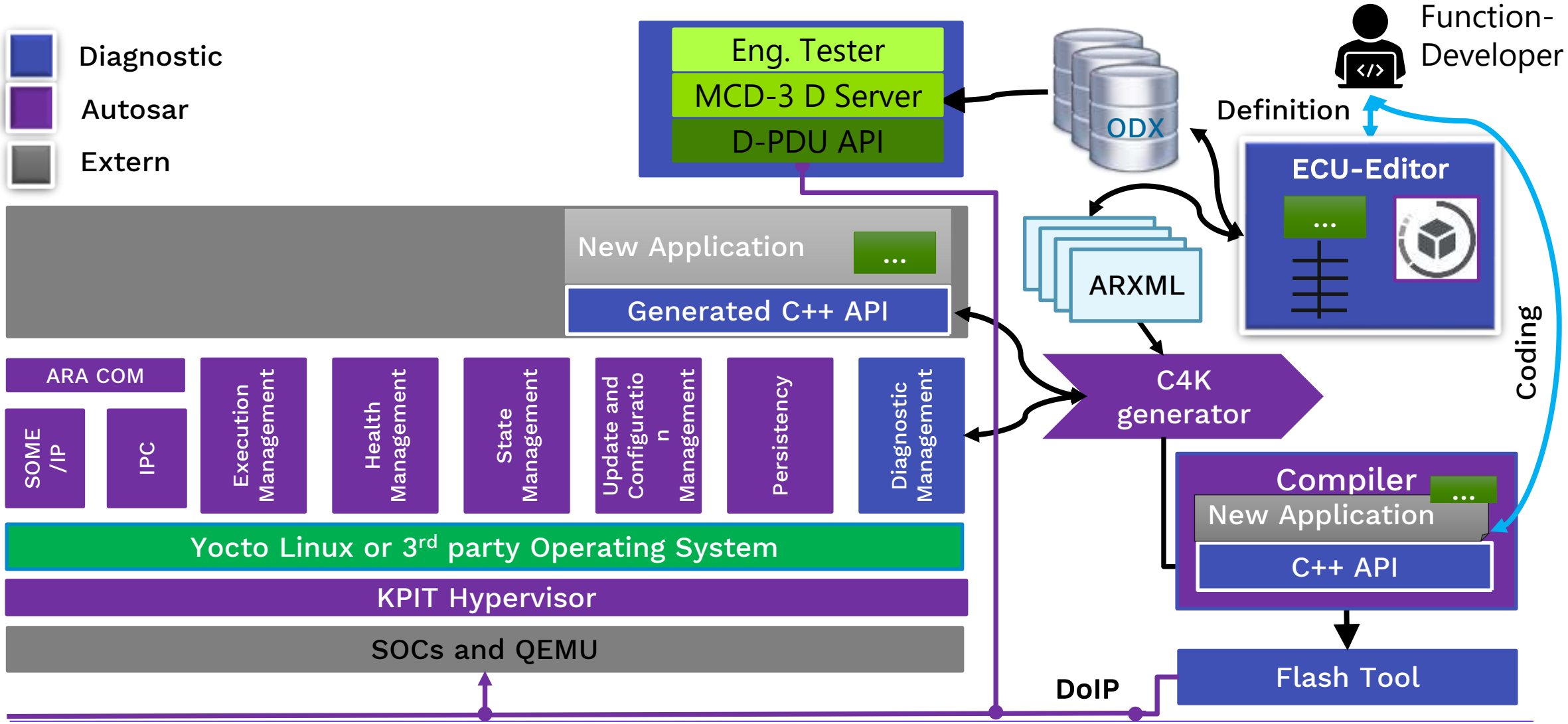
ECU-Editor Demo



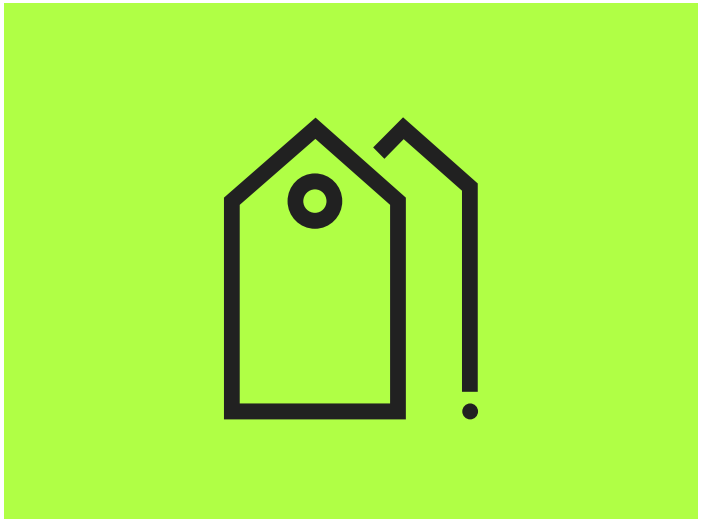
High Level Workflow for ODX + ARMXL with ECU-Editor



ECU-Editor combines AUTOSAR and Diagnostics



High efficiency &
Do it once!



No inconsistency &
do it right!

One tool fits all –
& never do it again!

Product overview

- add, modify and delete all data related to Signals, Measurements (DID, PID) / fault codes (DTC) for Off-board / On-board for existing ECU's in Vehicles.
- initial configuration / templates done by using the Database Designer (ODX) and C4K for ARXML.