

### Automotive

#### KEY DATA

Team Size: **45 Engineers**

Time: **5 years (2018–2023)**

Location: **France and Morocco**

**Competencies and Consulting**

#### ALTEN ADDED VALUE

With its diverse team, ALTEN can technically advise Stellantis' and fit its needs

Successful organization between two Stellantis sites and ALTEN premises in France and Morocco

Flexibility and reactivity (maintaining skills and know-how while handling fluctuating workload)

## POWERTRAIN INTEGRATION AND VALIDATION

#### OVERVIEW

ALTEN supported Stellantis' powertrain development and validation department by performing the gasoline, diesel, and PHEV powertrain tuning and validation.

#### PROJECT DETAILS

##### Responsibilities

- Tuning and validation of gasoline, diesel, PHEV, and automatic gearboxes
- Performing validation testing on benches and vehicles
- Software management and follow-up
- Project management and follow-up

##### Delivery

- Validated calibration for basic tuning, regulations, emissions, OBD starting conditions, drivability, safety, diagnosis, etc.
- Test report on engine test benches, roller test benches, track and road test, and hot/cold/altitude conditions validation tests
- Test benches and means schedule
- Issue management and follow-up
- Prototype vehicles and components schedule
- Computer-aided tuning tools development (Excel, VBA, etc.)

#### KEY TOOLS & TECHNOLOGIES

- Creta, CDT suite (ValFig), ALTIS, ETAS INCA/MDA, AVL CONCERTO/APOGEE, Optisim, CANalyzer, ETAS devices, IndicV3, TFMS, MATLAB/Simulink
- Electric (EV) and hybrid (HY) vehicle certification
- Test track and road test certified driving licenses
- Dyno trailer certification, ALTEN-Stellantis: PCAL

