



# **DEVELOPMENT SPRINT REVIEW**

## **CALENDAR WEEK 26.21**

## GENERAL (1/3)

### HIGHLIGHTS:

- Welding/Gluing technology support
  - Competence available
- Alignments
  - Main release completed
- Issue/Change Management Reporting focus
- BOM Support
  - Improve BOM effectiveness of transfers (3dx, EEBOM etc.)
- Cross Functional Synchronisation Points
- PMCS Status Review

## GENERAL (2/3)

- PMCS Assessment
  - 100% pre S0 and S0 assessed
- VPP Release
  - Next release of VPP incl. Comms of major changes
- Software release plan overview

### LOWLIGHTS:

- Part Quantity Strategy
  - Define strategy for hardware quantity requirements
- Software release plan overview
  - Software Level definition

### BLOCKER:

- SBP Focus
  - Understand current status
- Test/Hardware validation Org
  - Organisational set-up clarified and actions taken

## HIGHLIGHTS:

### SOP:

- Logistics Manual:
  - Purpose / Scope - Done
  - List of Abbreviations - Done
  - Contacts & Delivery Address - 80%
  - Logistics Requirements - 90%
  - Transport & Delivery - 90%

**LOWLIGHTS:** None

**BLOCKER:** None

## HIGHLIGHTS:

- ME
  - Concentrating now at team members show promising candidates

## LOWLIGHTS:

- ME
  - Concentrate on BOM show several questions in case of make or buy at NEVS

**BLOCKER:** None

# BODY CLOSURE

## HIGHLIGHTS:

- Charger Lid complete module --> could be a solution here
- RLE supplier visit closures/exterior
- KO meeting suppliers

## LOWLIGHTS:

3DX lowlight: unable to release top level, unable to create new revisions in 06\_BC

**BLOCKER:** None

## HIGHLIGHTS:

- SVC3/Series only
  - 1 new engineer signed contract
- Bumper
  - Update styling surfaces to improve CFD

**LOWLIGHTS:** None

**BLOCKER:** None





## BODY STRUCTURE

### HIGHLIGHTS: SVC3:

- 3DX Body Structure Release G.1
- Sealing Concept to NEVS
- Drawing decision matrix
- PMCS deliverables
  - Status check (pre S0)
  - Filled S0
- Prepare BoM for supplier (Definition of mirrored parts)

**LOWLIGHTS:** None

**BLOCKER:** None

# INTERIOR

## HIGHLIGHTS:

SVC3:

- PMCS
  - PMCS - Pre S0 - Deliverable - checked and judged - Done
  - Regular meetings with ARRK Interior on I/P, doors, trunk, and console hard points - WIP

**LOWLIGHTS:** None

**BLOCKER:** None

### HIGHLIGHTS:

#### SVC3:

- Systems received the quad max Dev kit and Base board and are in the process of porting Android 11 OS. Should be delivered to the digital team in week 27
- Technical process is underway to reduce the number of antennas, numbers of cables and the location of the VCM, headunit and Ecall modules
- Propose of mating the VCM and headunit together (two modules, fastened together in a single location) Systems are on board, there are connector details to workout

## INFOTAINMENT (2/2)

### LOWLIGHTS:

SVC3:

- The number of antennas are driving up cost
- Studying the full CarPlay certification documents, if they are not able to complete we will have to contract an ESP to complete the certification
- Suppliers are on summer vacation

### BLOCKER:

SVC3: The current VCM/Headunit/Ecall location is not acceptable for manufacturing (too close to the floor and between the cross brace)

## HIGHLIGHTS:

### SVC3:

- 1D simulation results have been presented (Documentation outstanding). Results look promising:
  - Heat rejection (75kW fast charging) of the battery can be cooled in a steady state
- Compressor vibrations testing successful. Minor communication problems did not cause issues. Result outstanding
- Creation of requirements sheet (SSTS) for coolant and refrigerant lines on track

**LOWLIGHTS:** None

**BLOCKER:** None

## CHASSIS (1/4)

### HIGHLIGHTS: SVC3:

- Steering
  - Tierod Obj Freeze - 80%
  - Straight Tierod Freeze - 80%
  - Tierod Sweep Zone Freeze - 50% (100% next Tue)
  - CAD Model Freeze on PDM - 80%
  - Grommets scanned model to be modelled, interfaces to be sent to Cikautxo to move forward with RFP - Upper 100% / Lower 0% (60% next Thu)
  - Steering column fastener to be decided, added in PDM and frozen - 70%
  - Intermediate shaft fastener to be decided, added in PDM and frozen - 70%
  - Steering gear fastener to be decided, added in PDM and frozen - 70%

## CHASSIS (2/4)

- Brakes
  - Develop brake pedal CAD and DVP - 50%
  - Freeze foundation brakes (caliper + disk) - 80%
  - Sign off ESC communication strategy - 60%
  
- Suspensions
  - Sample size for Durability (LCA) - 100%
  - Design inputs implemented for Subframe - 50%
  - Design inputs implemented for RTB - 60%
  - Implement Top down targets given by NVH - 50%
  - Interference Fender x tire envelope - 60%

## CHASSIS (3/4)

- Knuckle
  - Optimized design - 90%
  - Get new loadcase data - 100%
  
- CAD / PDM
  - Upload latest geometry into PDM - 100%
  - Add number logic to structure - 100%
  - Kick off GD&T (integration)
  
- Cross Functional
  - BIW x Subframe mounting hardpoints - 50%



## CHASSIS (4/4)

### LOWLIGHTS:

SVC3:

- CAD integration being made manually. Probably will be solved next week
- Increase DM robustness

### BLOCKER:

SVC3: SF front Extension: crash and radiator assembly

**HIGHLIGHTS:**

## SVC3:

- Regular meetings with ARRK Interior and Sono Interior Team → Major improvements on the Center Console
- Started product requirement in Jira defined-> Need further investigation

**LOWLIGHTS:**

## SVC3:

- Missing peripheral information attached to BCM
- Missing peripheral information attached to RCM

**BLOCKER:** SVC3: Headcount (Timing)

## HIGHLIGHTS:

SVC2: OBC Testing was done last week with Casco on SVC2.2 (Pepper):

- V2L working

SVC3:

- Requirements for VCU taking shape with Continental (Weekly reviews in place)
- OBC Discussion with suppliers
- OBC DVP plan (Environmental & EMC)

## LOWLIGHTS:

- SVC2: V2V not working

## BLOCKER:

SVC2: Sleep Mode not tested in SVC2.2

# HV BATTERY

## HIGHLIGHTS:

### SVC3:

- Review information for connector and EE parts selection required: WIP
- New team member joining the HV battery team as lead CAE engineer: WIP

## LOWLIGHTS:

### SVC2:

- Implement WLTP cycle --> Pedal Position --> EDU requested torque --> EDU efficiency map in MATLAB: WIP
- Implement vehicle dynamics for available information on vehicle: WIP

**BLOCKER:** None

## PROCESS OWNER (1/3)

### HIGHLIGHTS:

- VTS
  - Release VTS V6.2 completed
- BOM
  - 3DX issues partly solved
- Issue Management
  - Issue report to be published this week
  - PMCS trainings per module
- Release Management
  - First draft of 'valid from' attribute

## PROCESS OWNER (2/3)

- Cost Management
  - Alignment on budget status (Spent until end of June)
  - Justification for overspend cost items
  - Cost report manufacturing

### LOWLIGHTS:

- VTS
  - Slow progress in update
- BOM
  - BOM viewer issues
- Issue Management
  - Critical known DMU issues have not been introduced into the system yet

## PROCESS OWNER (3/3)

### BLOCKER:

- Issue Management
  - PMCS tool issues due to update (e.g. login of external partners) → issue performance can't be shown at 100%
- Release Management
  - Define content of initial release → Stakeholders / Project Lead

## VIRTUAL VEHICLE (1/2)

### HIGHLIGHTS:

- Integration Guidelines updated (incl. Change Action)
- VTS Update SAE J1100
- Release G.1 and local export, data ok for NEVS
- Focus on Frontend
  - HV Wiring Charging Lid to OBC concept completed
  - Frunk volume 15L
  - Trunk volume optimized
  - Front Radar positioned
  - 12V Battery Tray optimized (Manufacturing, heater)



## VIRTUAL VEHICLE (2/2)

- HV Battery Product Structure
- 3DX Coaching new employees
- Model based Definition/Drawing Strategy defined, additional Alignment with Body Structure
- VDA Tech Days

### LOWLIGHTS:

Some processes not reflected in 3DX

### BLOCKER:

Headcount Competence Cluster - Validation Report moved to next sprint

## DESIGN (1/2)

### HIGHLIGHTS: SVC3:

- Organisation
  - Definition of styling swimlane - done
- Exterior:
  - Styling Loop 02 ongoing. Updated Hood / Bumper / A pillar ready 09.07.21. Rear ongoing. Estimate that about 60% of styling loop 02 is done. Plan to finish mid / end of July.
- Interior:
  - Styling loop 02 ongoing. IP and Center Console are progressing well, door (window switch area) complicated but will progress. Greenhouse / Headliner not yet touched. Estimate that about 30% of styling loop 02 - done
- Visualization:
  - Visualization is progressing

**LOWLIGHTS:** None

**BLOCKER:** None