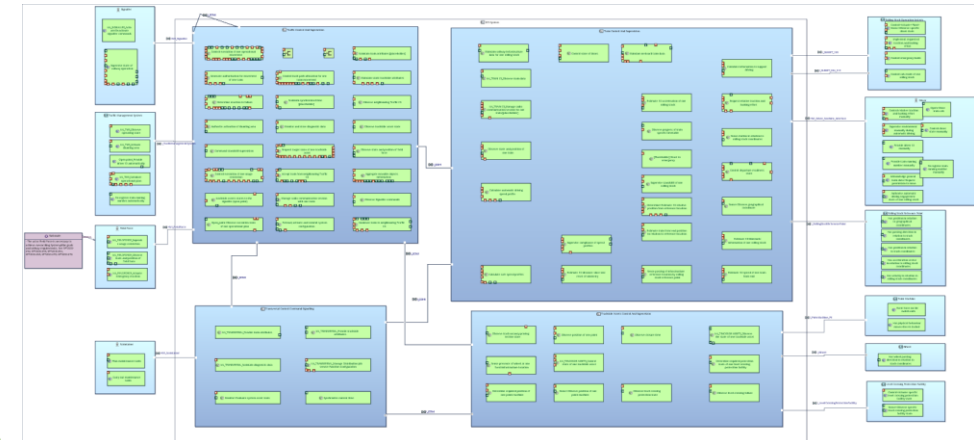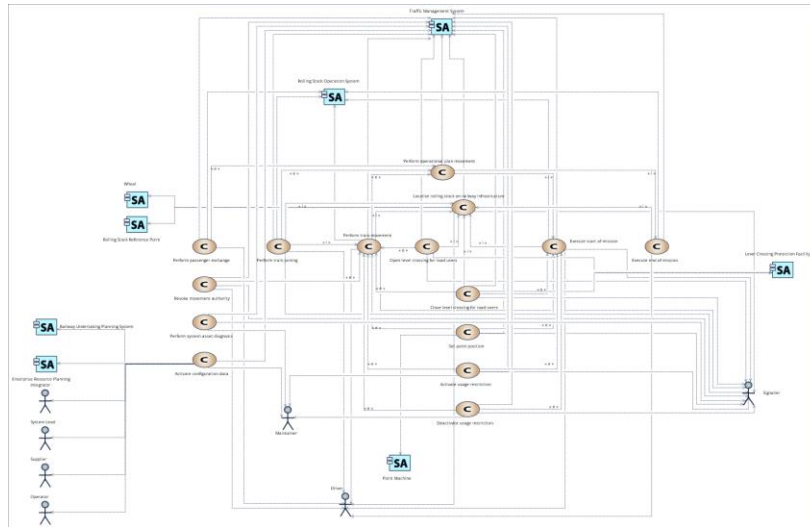# Task 2: Architecture

T2 ARC domain is responsible for the "coordination areas". Each coordination issue is not a design task per se, but fulfils a cross-domain, cross-task and SP-IP oriented roles, supported by the SP Core-group.

The generic target of the coordination is to provide the information for **external communication** and **Task 2 internal management** of a cross-domain, cross-task or SP-IP issues. The second target is a faster decision process, by collating the necessary information to allow key architectural questions to be answered.

Target CCS Logical Architecture (Version 1)

CCS System Capability (Version 1)

The Functional Architecture Team (ARC-F) will focus on developing the following new functions and technical enablers for the **"Harmonized European Rail Operation" migration plateau**:

- ETCS L2 Functionality based on System Version 2.3 or higher

- CCS Architecture based on: Harmonized Trackside Protection System ("TPS", combining a cleaned-up interlocking and RBC functionality specialized on ETCS L2) and Plan Execution System ("PE"; EAL)

- Safe traffic control for mixed traffic with trains with or without train integrity/train length information;

- Supervised maneuvers and harmonized ETCS shunting signals as implem. option

- All other interfaces of the System Pillar Target Architecture, which are perhaps agreed and published at this time, can be used for optional implementations

ARC-F will also focus on developing the following new functions and technical enablers for a "**Digital European Railway**" and an **"Automated European Railway"**:

- Automatic Train Operation Grade of Automation to level 3 and 4
- Harmonized Remote Train Operation functionality (optional)

Task 2: Architecture

Lead STIP Deliverables

- **STIP_5: High level logical architecture on system level 3: Names of the subsystems and interfaces -** 2024
- **STIP_135: ETCS CR enhancements – completion dates are defined in the Standardisation and TSI Input Plan (STIP)**

Deliverables Request for Service (SC2.4) – Year 3 [Oct-24 – Oct-25]

D01	**ATP/ETCS overview** - Sept 2025
D02	**TSI CR Overview** – Continuous
D03	**High level logical architecture on System Level 3** – Continuous
D04	**System Pillar Document and Release Plan ("DRP")** – Continuous
D05	**Support to the EGNOS Project** – Dec 2025

Latest Achievements, Challenges and Design Decisions *(to be filled periodically by the domain)*

- **Latest Achievements:** The following achievements have been accomplished by ARC domain:
  - **Achievement #1:** Completed first version of the CCS System Definition
  - **Achievement #2:** Completed first version of the CCS System Architecture including interface catalogue and System Pillar Reference Architecture model
  - **Achievement #3:** Completed Granularity Principles Version 4 integrated into SEMP
  - **Achievement #4**: Completed first versions Standardisation TSI Input Plan – Architecture Roadmap
  - **Achievement #5:** ETCS Change Request process integrated into CCM process and following the STIP change requests are being processed as planned.
- **Domain Current challenges:** The domain is facing the following challenges:
  - **Challenge #1:** Reorganisation with new roles and members for ARC2.4.
- **Design Decisions:** The domain has made the following design decisions that impact the Overall Model:
  - **Decision:** see achievements. Especially the functional allocation on higher level (aka System Level 3) is finalized on CCS level.

Expected outcomes for sector review in the next 3 months

- **The next review will be in Q2/2025: Complete System Level 3 architecture**