



# Meta Process for **H**armonisation **O**perational **P**rocesses (HOP)

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# Objectives of the domain HOP

## Objectives of the domain Harmonisation of operational processes

The main objective is to develop a working and efficient meta-process for harmonisation of operational processes within CCS+

- ❖ Proof the efficiency of the meta-process by applying it to chosen relevant operational scenarios including relevant degraded situations
- ❖ Achieve a common understanding regarding the actors and their capabilities
- ❖ Find an adequate way of documentation for proof of concept
- ❖ Aligning on a methodology for documenting the concepts of harmonized operational scenarios, joint determination of the operational concept and guidelines to be provided for the System Pillar
- ❖ As long as there is no architectural target picture, HOP will work with assumptions on future architecture, processes and functions (e.g., radio based ETCS without lineside signals, ATO GoA 2 and 4, accurate train-borne localisation, on-board train integrity, FRMCS)
- ❖ Collect all relevant operational scenarios for CCS+

# Agreed input to the domain HOP

## General concept documents

### Draft of future operational concepts for CCS+

- ▶ Aims to describe the background of HOP
- ▶ Document the methodology to achieve the future operational concept
- ▶ Intended to become the basis for the final deliverable

### HOP List of relevant scenarios

- ▶ Containing the relevant operational scenarios for harmonisation collected from Railways and the Industry
- ▶ Currently includes scenarios from DB, ÖBB, ProRail, Bane NOR, Network Rail, LINX4RAIL and Shift2Rail (e.g. Virtual Coupling) as well as RCA
- ▶ Needs to be consolidated in order to be used in the System Pillar

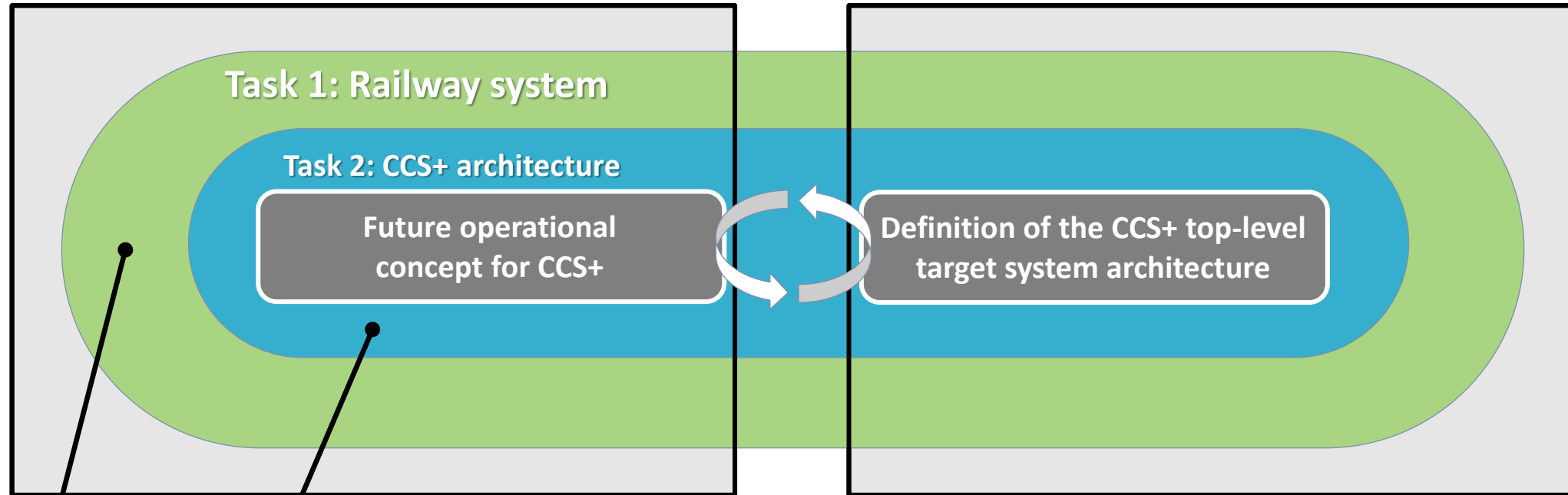
## Input list of documents, e.g.

RCA-OH PoC- Documents	Start of Mission	No integrity information	Loss of integrity
	Pass level crossing	Emergency Stop	Supervised Shunting
LINX4RAIL_01__WP5 Harmonisation of operational requirements V0.8			
LINX4RAIL_02__HOOR Start of Mission_01			
X2R3 D6.1 Virtual Coupling			

# Harmonisation of operational processes in Task 1 and Task 2 (CCS+)

## Domain Harmonisation of operational processes

## Domain Architecture & Migration



**Task 2: HOP (Domain):** concentrates on CCS+, according to the CCS+ target architecture

**Task 1: Operational Concept (Core Group):** covers the all relevant processes around Task 2 of the rail system

# Close collaboration between the domains HOP and Architecture & Migration and the Core Group

## Collaboration of Task I and Task II

- ❖ The Operational concept delivered by the Core Group (Part I) describes processes allocated in the three concept areas:
  - CONOPS: Concept of operations, business, legal, commercial, and organisational view
  - CONUSE: Concept how to use the system, production view
  - CONEMP: Concept of employment, provide system and resources, “asset management view”
- ❖ The Future operational concept for CCS+ delivered by the HOP domain (Part II) will focus on operational scenarios in the CONUSE concept area.

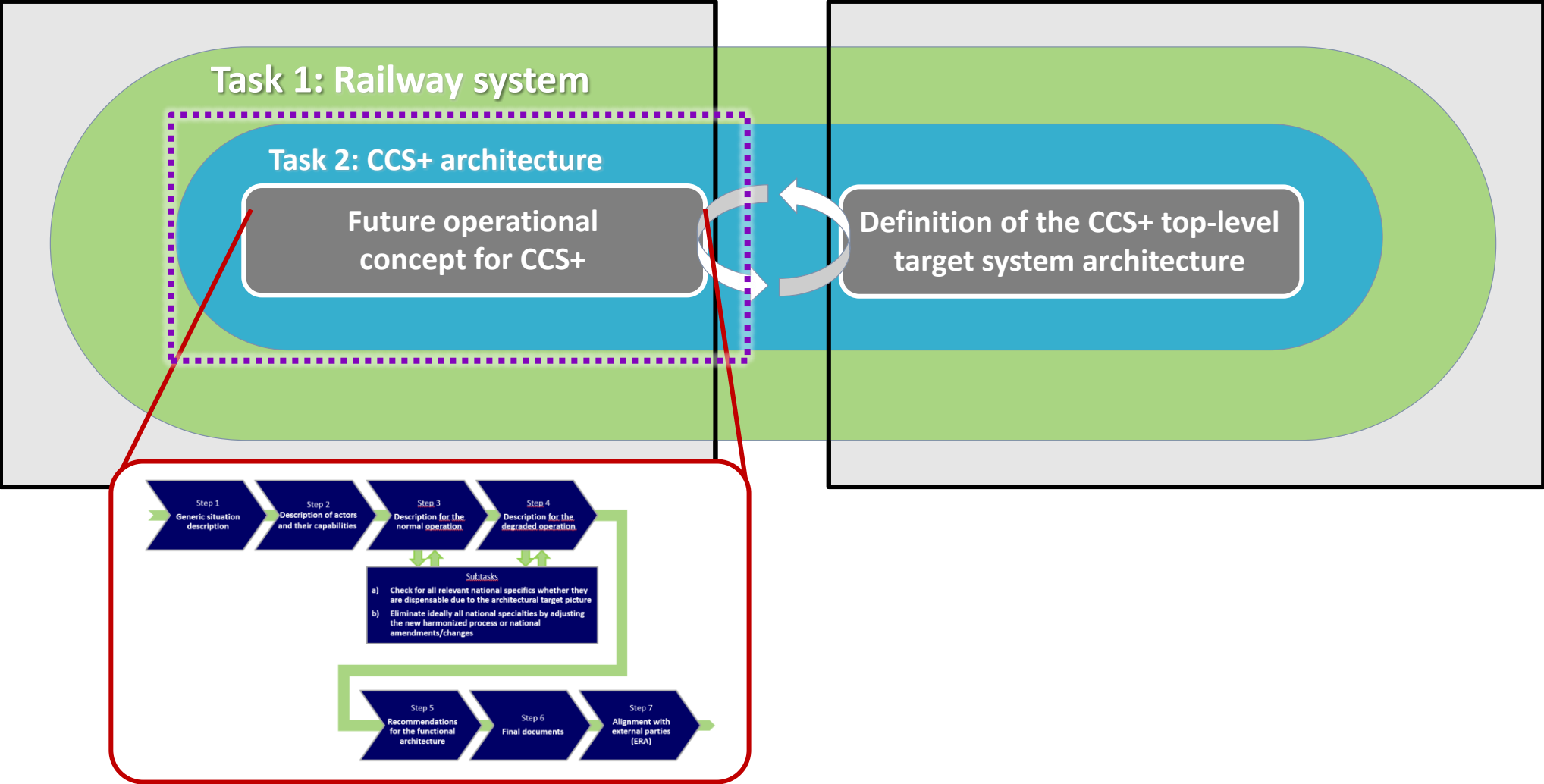
## Collaboration between domains of Architecture & Migration and Harmonisation of operational processes (Task I)

- ❖ Achieve a common understanding regarding the actors and their capabilities
- ❖ Agreement on the functional assumptions
- ❖ Collect all relevant operational scenarios for CCS+
- ❖ Choose the relevant operational scenarios

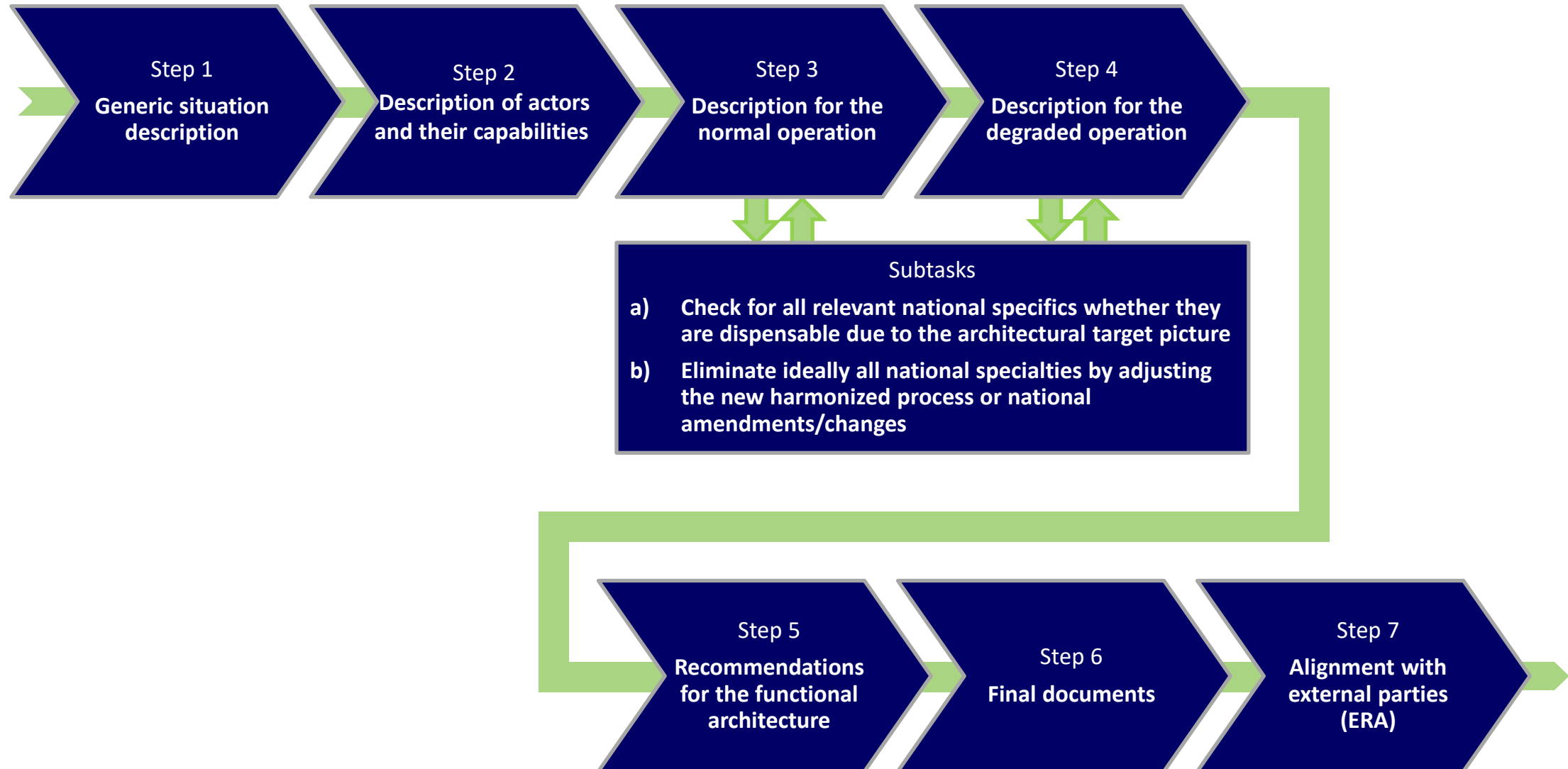
# Scope of the Domain HOP within SC5 Part 2

## Domain Harmonisation of operational processes

## Domain Architecture & Migration

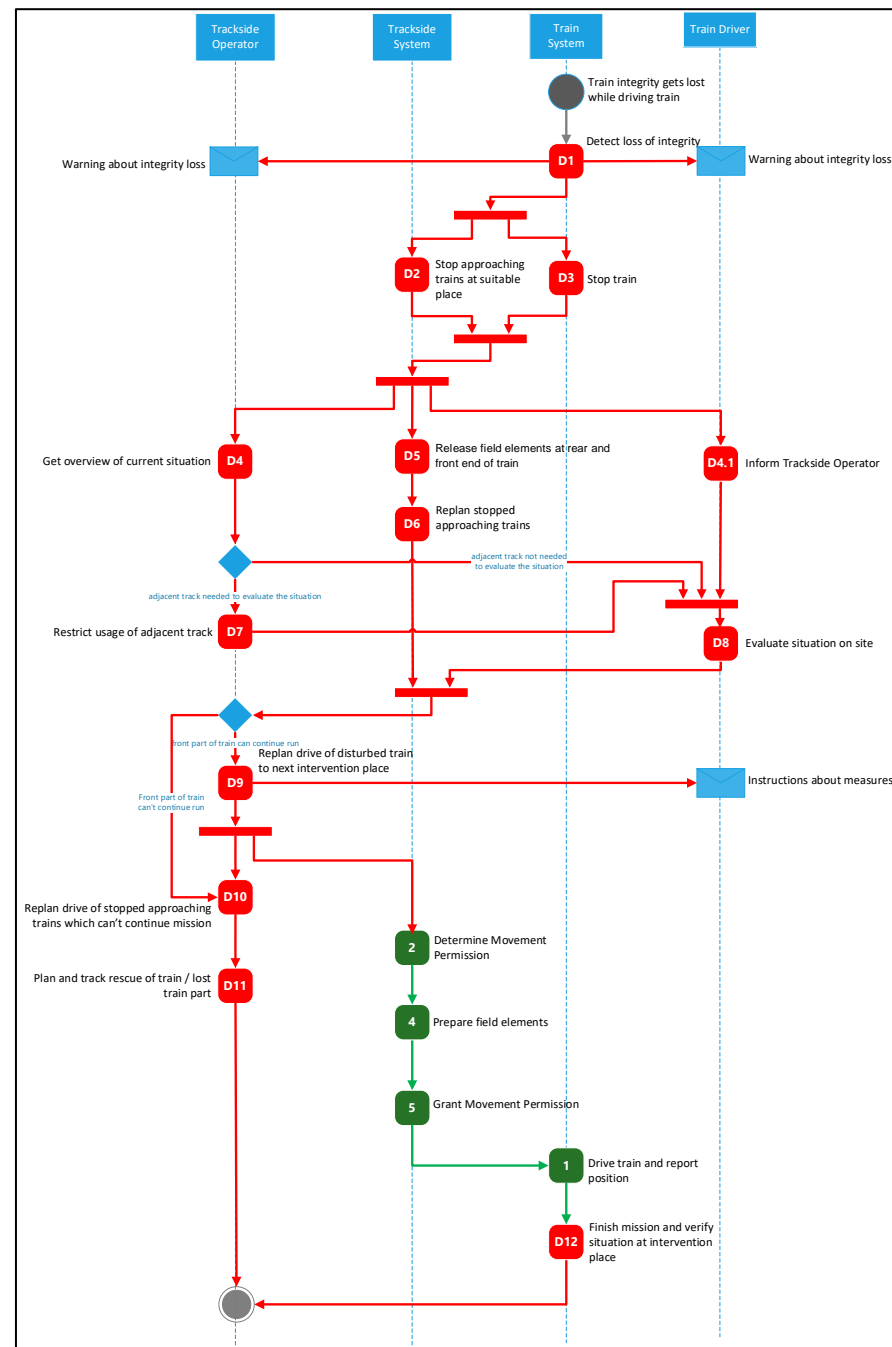
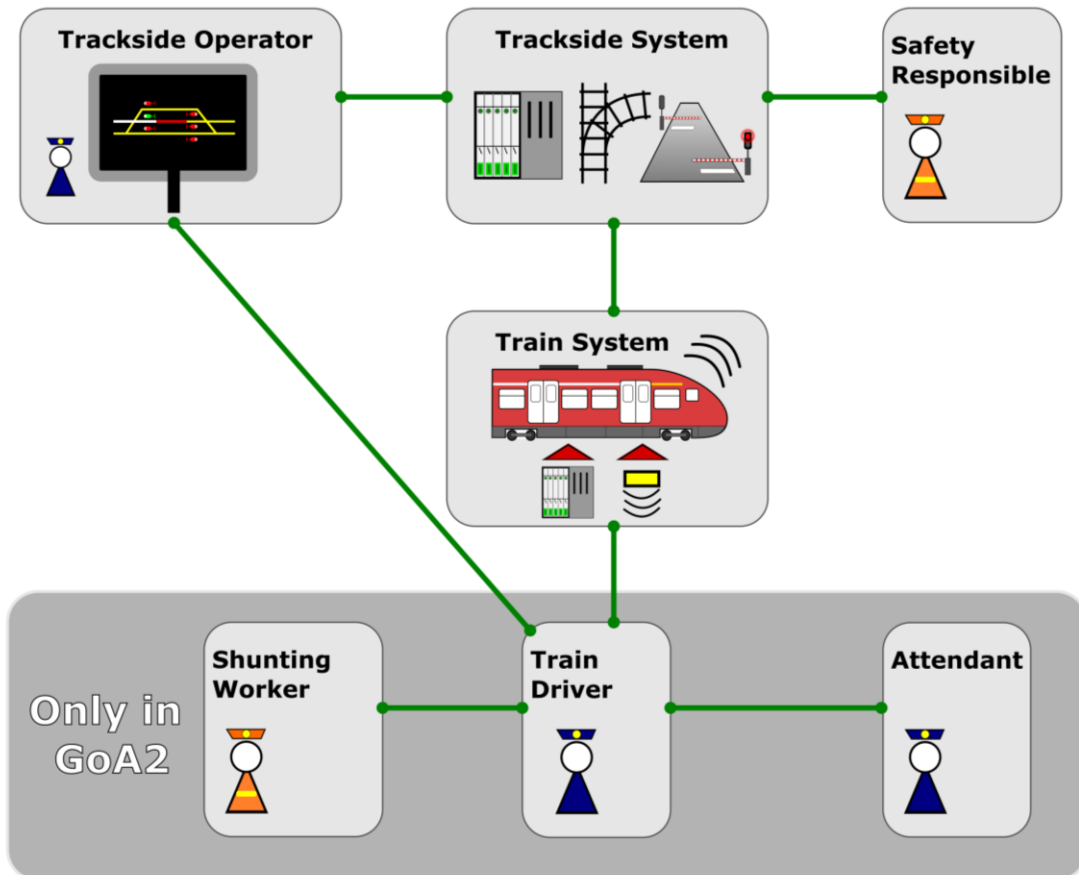


# Meta-Process for HOP



# Exemplary activity diagram on Integrity issues

## Degraded scenario: Loss of integrity



For GoA2





Thank you for your attention

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