**CORE USE CASES**

**S-DAS + C-DAS INITIALIZATION**

**DAS**
- DAS turns on
- DAS requests Segment Profiles not in DAS memory
- DAS requests Train Characteristics not in DAS memory
- DAS or driver requests RU to correct TAF/TAP Composition Messages
- DAS calculates and presents advice to driver

**TMS**
- TMS sends Journey Profile to DAS
- TMS sends requested Segment Profiles
- TMS sends requested Train Characteristics

- **DRIVER CHECK**: Train Type
  - Is the train Type correct?
    - Yes: Driver corrects Train Type.
    - No: DAS requests Train Characteristics if not in DAS memory

- **DRIVER CHECK**: Degraded Train Functions
  - Are functions of the train degraded?
    - Yes: DAS calculates optimal speed profile based on known Journey Profile
    - No: TMS calculates new Journey Profile

**C-DAS OPERATIONAL USE CASES**

**DAS**
- DAS determines train position/speed
- DAS requests Segment Profiles not in DAS memory
- DAS calculates optimal speed profile based on known Journey Profile
- DAS sends to TMS “Train cannot respect Time Window”
- DAS presents advice to driver

**TMS**
- TMS sends Journey Profile to DAS
- TMS sends requested Segment Profiles
- TMS calculates new Journey Profile
- TMS sends requested Segment Profiles
- TMS presents advice to driver

- **DRIVER CHECK**: Degraded Train Functions
  - Are functions of the train degraded?
    - Yes: TMS calculates new Journey Profile
    - No: DAS calculates optimal speed profile on new Journey Profile

- **TMS CALCULATION AND DAS UPDATE**
  - Can the train respect the journey profile?
    - Yes: TMS sends Journey Profile to DAS
    - No: DAS sends to TMS “Train cannot respect Time Window”

**Other IM systems**
- Other IM systems

**KEY**
- Mandatory Functions and links (main flow)
- Mandatory TMS Functions and links (annex flows)
- Optional Functions and links

**IRS 90940 (SFERA Project)**
Stakeholder Workshop - 06/11/2018

This use case is repeated:
- for all IM’s on the train Journey when initializing in S-DAS mode;
- When necessary in C-DAS mode (for example: at the last stopping point before a border).