DSSAD
JAPAN Position/Proposal

September 2019

Geneva

DSSAD: Basic Concept

- Under the ToR/Framework Document adopted at the 178th WP29 (June 2019, Geneva), DSSAD function is defined as to collect/store the vehicle data related to 'the status of the automated/autonomous driving system and the status of the driver'.
- Based on this concept the following specific information shall be recorded by DSSAD:

Status of the Automated/Autonomous Driving System:

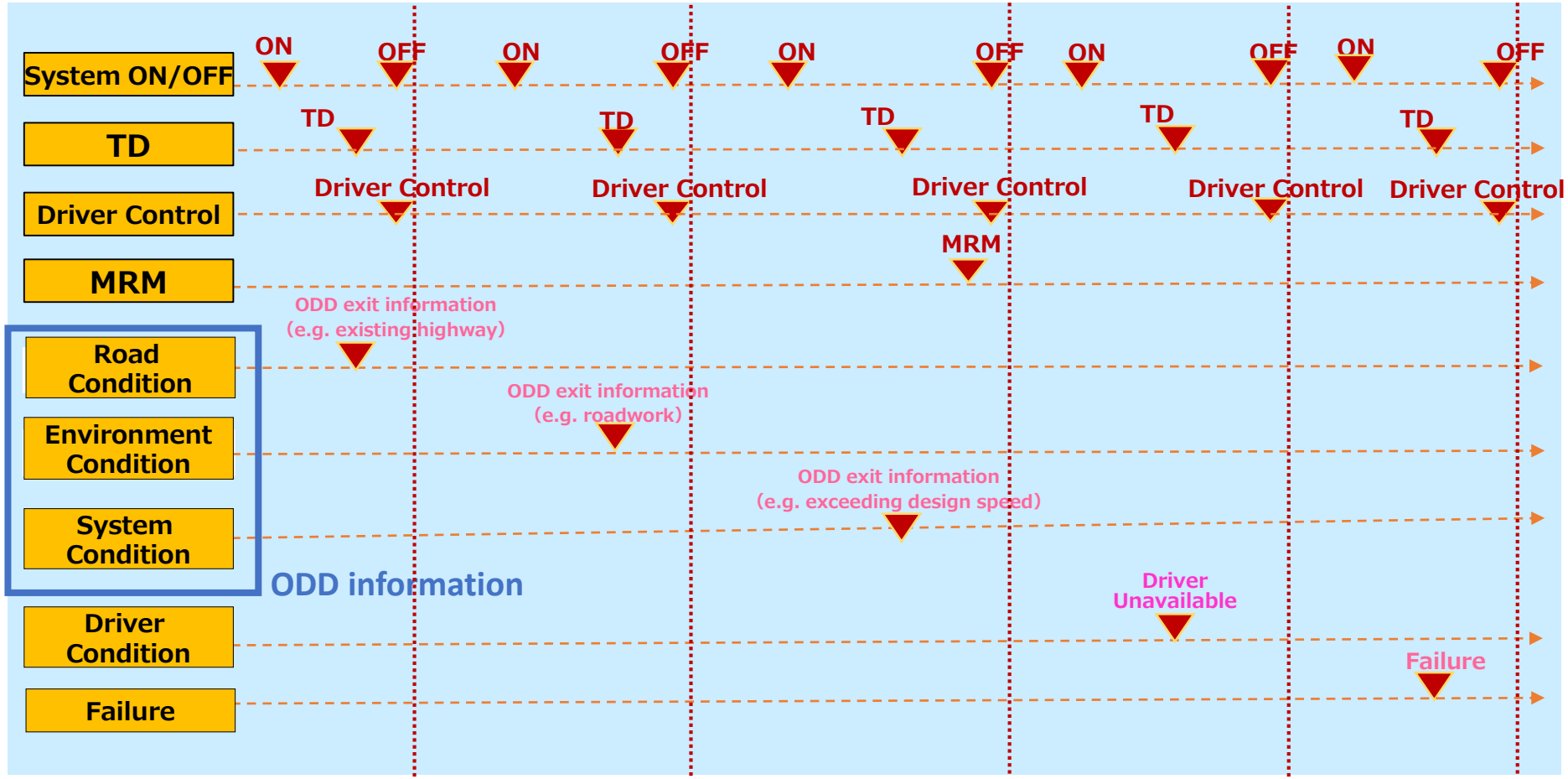
- Time when the system was turned ON/OFF
- Time when TD was initiated
- Time when MRM was initiated
- Time when other required function(s) under ALKS, if necessary, was initiated
- Time when the System failure occurred
- ODD information (time and the conditions (e.g. road condition - roadway types/ geographic area, etc. , vehicle condition - speed range etc., environmental condition) when the system exited the ODD limits)

Status of the Driver:

- Time when the driver took manual control of the driving task, under automated mode activation
- Time when the driver became unavailable to take over the driving task

DSSAD: Basic Concept

- DSSAD shall record the change of the key status with time stamp
- The recorded data enable to verify the status of the AD system and the status of the driver, including who was in control of the vehicle, at the time of the event (e.g. accident) and thereby support accident analysis associated with the incident.

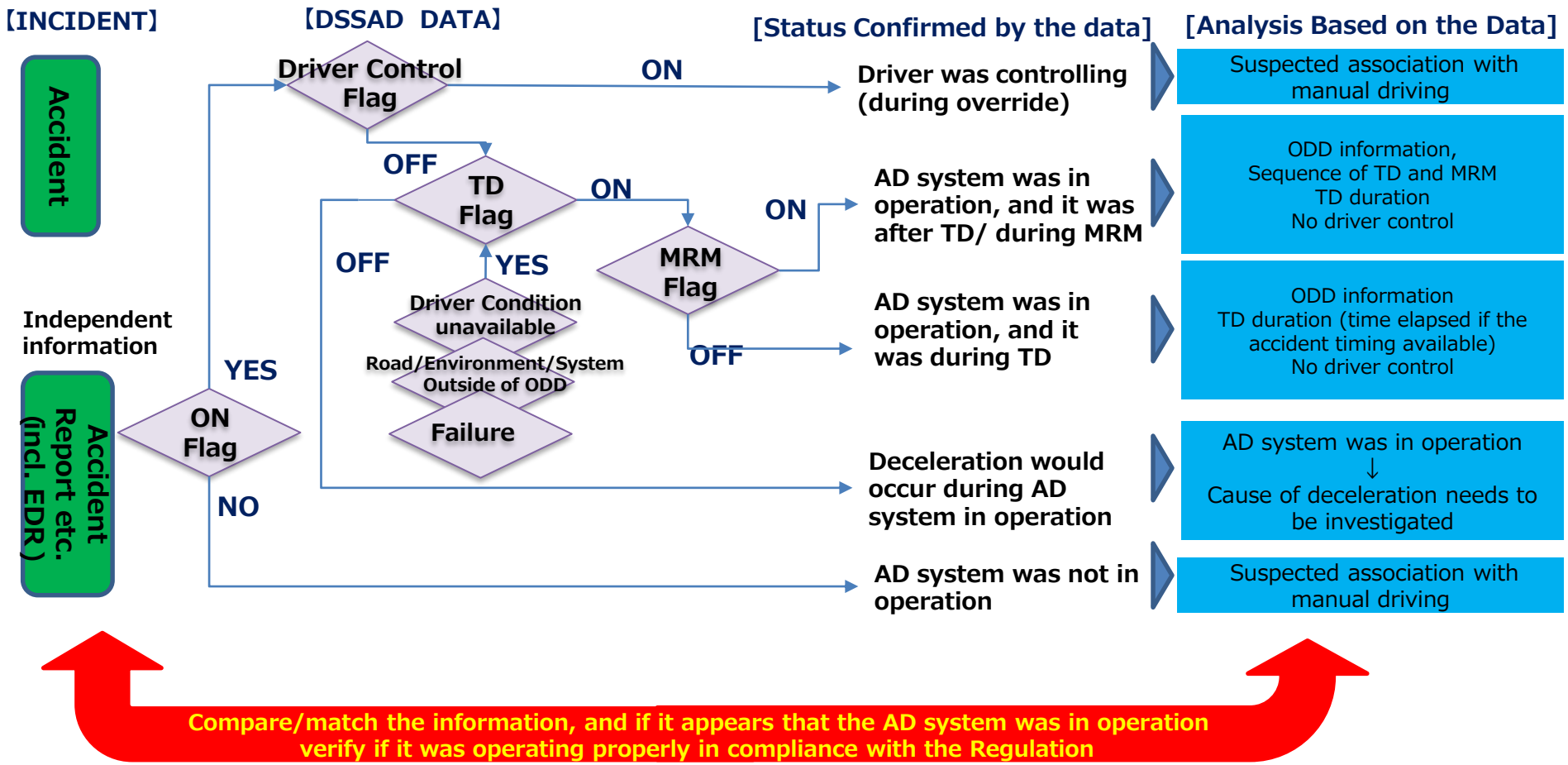


Case Study 1: Accident

<Scenario>

- A vehicle decelerated on a highway and caused a rear-end collision with the following vehicle. The driver of the vehicle claimed that the vehicle was under the AD system control and the system brought the sudden deceleration.

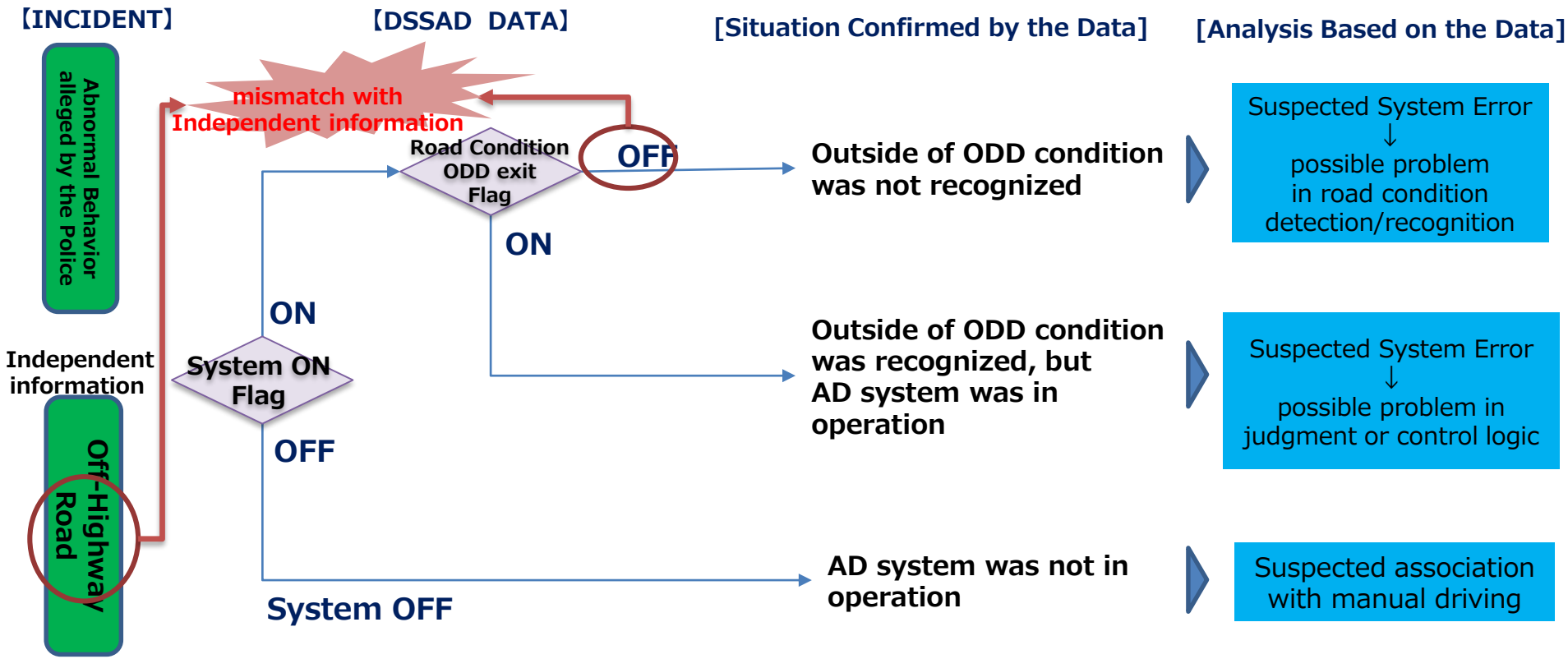
NOTE: Assuming an AD system that driver override is always prioritized during the system in operation



Case Study 2: Abnormal Behaviour

<Scenario>

- The Police stopped a vehicle on an off-highway road due to its abnormal behavior. The driver of the vehicle claimed that the vehicle was under control of the AD system but the ODD of the system was limited to highway use.



Case Study 3: Traffic Offence

<Scenario>

- The police stopped a vehicle which was going 120 km/h on the highway with 100km/h speed limit. The driver of the vehicle insisted that the vehicle was under the AD system control, but the system ODD was 100km/h.