

EDR-DSSAD-IWG-26

Rollover Event Issues

Case-based airbag deployment accident
during rollover algorithm activation



Accident Case

Accident Case in Korea

✓ June 18th 2020, Development accident recorded as a 'rollover event'

- Vehicle: Mid-Size Sedan(EV) MY2018
- Situation: While waiting at a traffic light at an intersection, the driver unintentionally accelerated.

✓ Accident Video Data

▪ Dash Cam

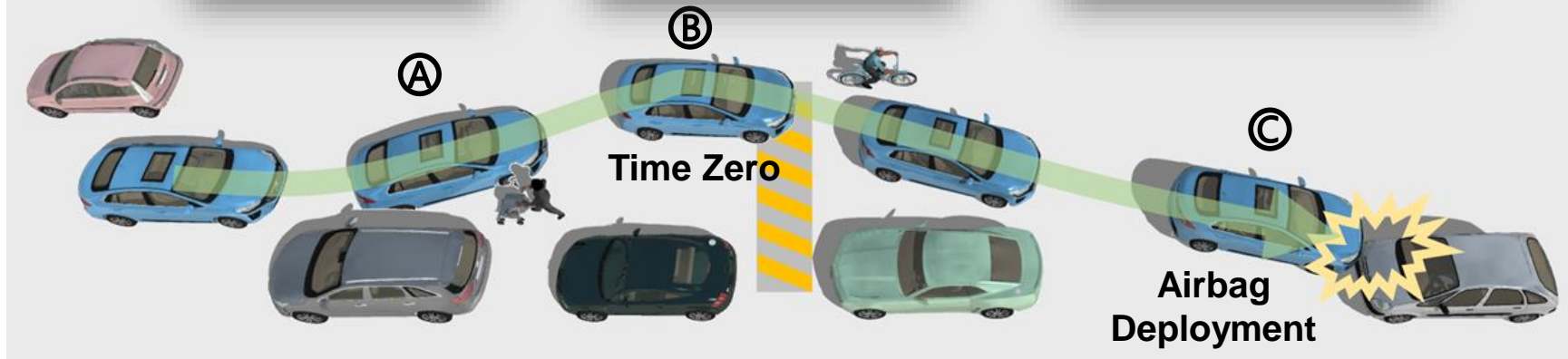


▪ CCTV



Accident Case

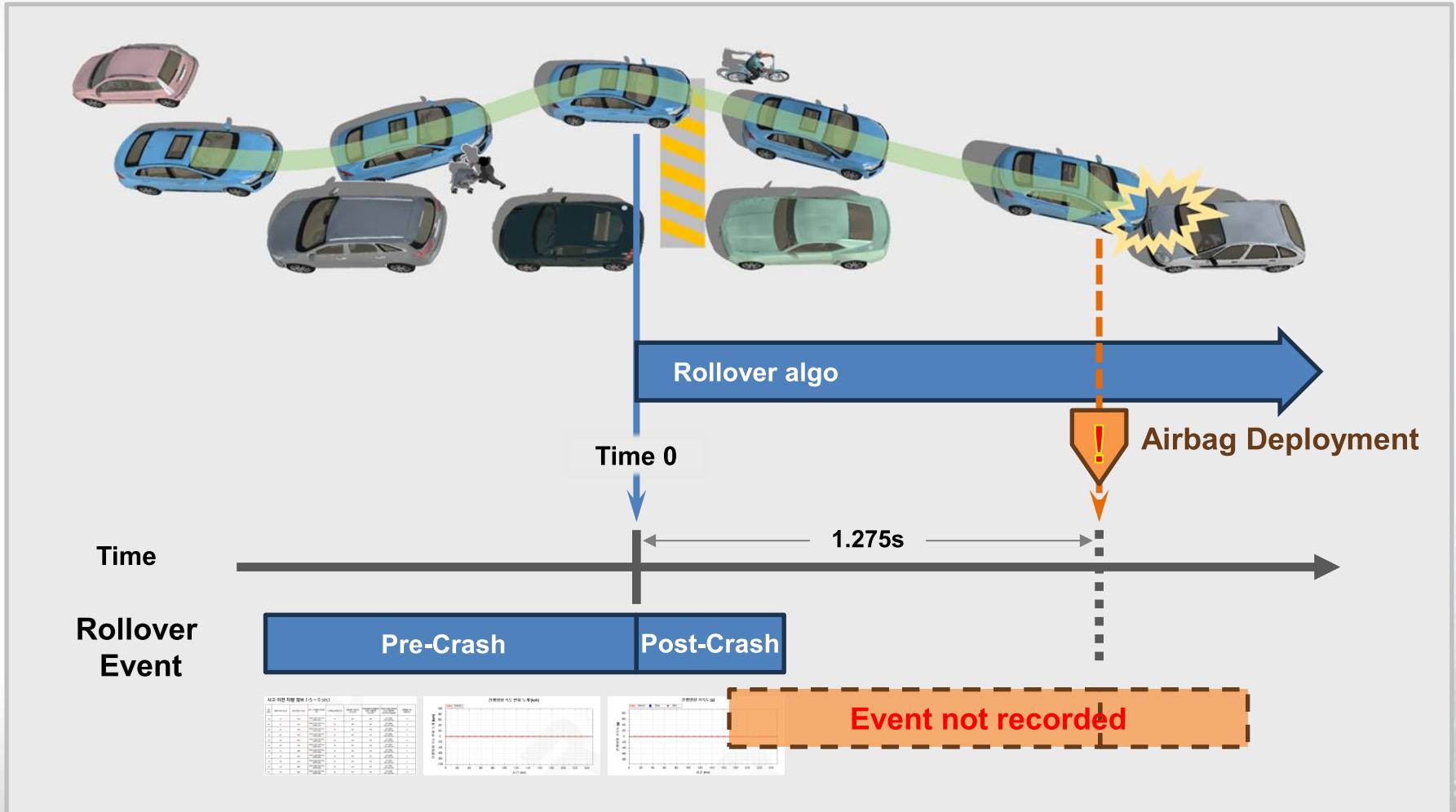
Accident Case in Korea



- ✓ A. Steering to the left to avoid pedestrians on the right front
- ✓ B. Steering to the right to avoid the bicycle in front on the left side
 - The right wheel of the vehicle passed over the speed bump, causing a sudden change in roll rate.
→ Rollover algorithm wake-up : Time 0
- ✓ C. Collision with a parked vehicle after 1.275 s

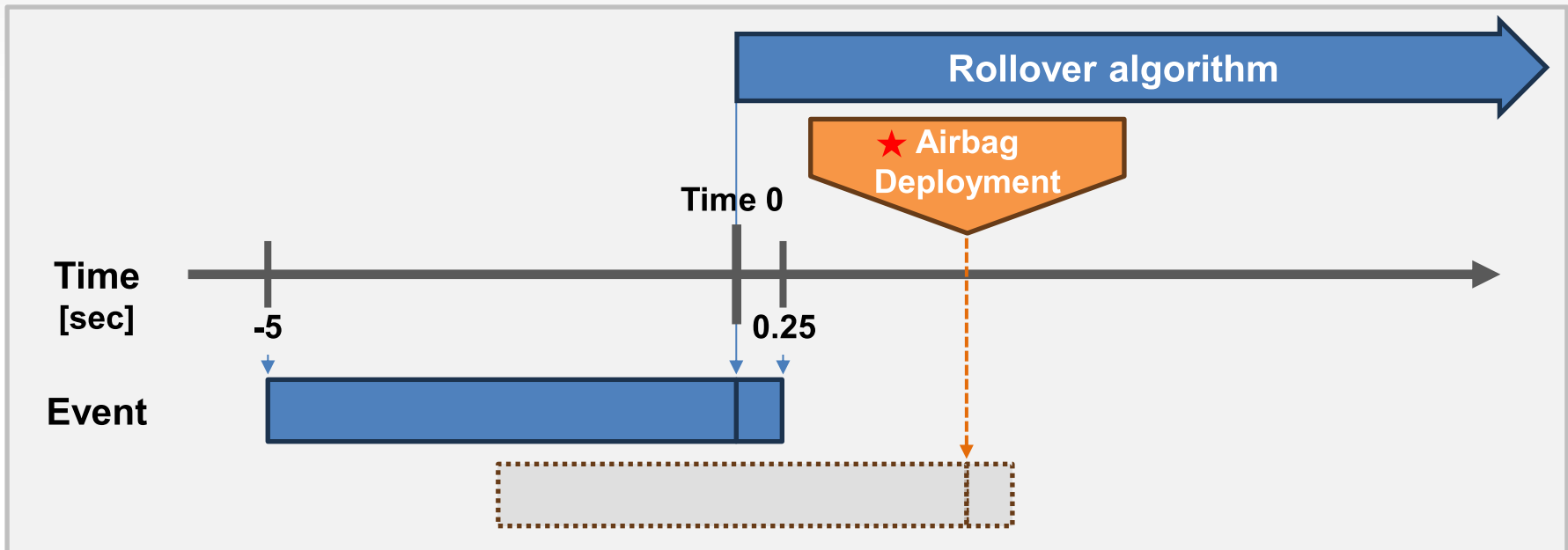
Accident Case

Accident Case in Korea - Rollover Event (Deployment Event not recorded)



Rollover Event Issues

Issues with recording Rollover Event



☑ (Issue #1) If another trigger occurs before the end of the rollover algorithm, the event will not be recorded.

- Data for more significant events* is not available.

* e.g. Deployment of a non-reversible deployable restraint

☑ (Issue #2) Rollover event data does not include crash information from more significant event.

- Pre-crash data for rollover event may include or exclude crash details of more significant event.
- For the 'Acceleration' and 'Delta-V' elements, the actual severity of the accident could not be determined.

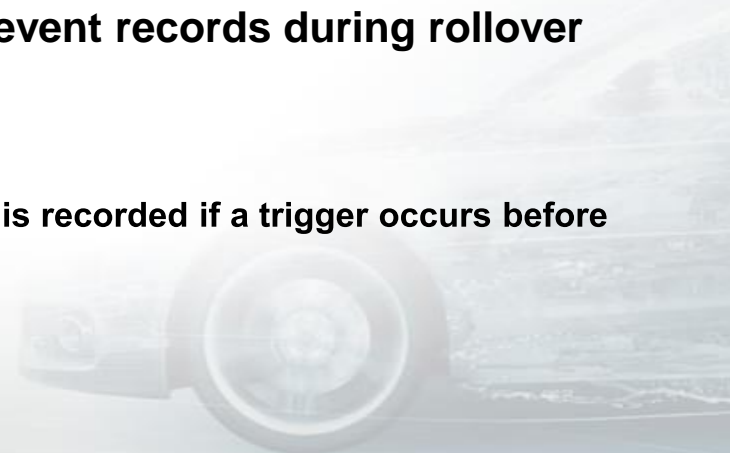
Conclusion

Issues with recording Rollover Event

- ☑ If a trigger occurs before the rollover algorithm(system with “wake-up”) ends, the event is not recorded.
- ☑ Even for significant triggers such as airbag deployment, it is not possible to obtain pre- and post-crash deployment data for missing events.

Suggestions for further IWG discussion

- ☑ Need for group discussion to prevent missing any event records during rollover algorithm operating
 - A solution could be to add a sentence to ensure that an event is recorded if a trigger occurs before the end of the wake-up type algorithm.



THANK YOU



KATRI

Defect Investigation Division

Na-eun Woo

- e-mail : betterwoo@kotsa.or.kr