

# **Stationary Sound for AVAS**

10-11. December 2014

1<sup>st</sup> meeting for UN-R

**JASIC**

1. Positive effect without stationary sound Former QRTV #03

2. Safety risk of stationary sound GTR QRTV #02

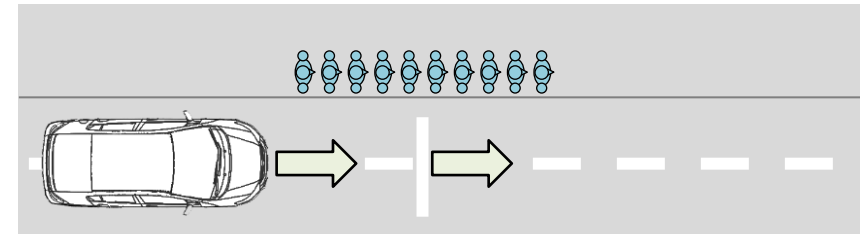
3. The other impact

# 1. Positive effect without stationary sound

Discussion of the issue of scope: Reasons for eliminating vehicles with idling stop system (no sound in stationary).

- HEV (Honda Insight), unable to run in an EV mode, has a structure which starts engine when it begins moving, the same as that of ICE vehicles with idling stop system. The verification of startup awareness of this vehicle at the workshop indicated 39 out of 40 people had noticed it.
- There were comments from visually impaired people, saying it rather was easier to distinguish at the startup.

No stationary sound makes easy detection when a vehicle starts to move.



Vehicle stops at stop line  
and start to move..

## 2. Safety risk

### Safety Concerns About Sounds From HEVs/EVs at Stop

**Safety risk confirmed with HEVs/EVs at Stop:**

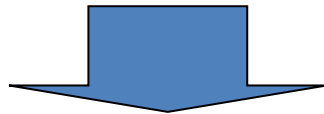
**Results of the practical demonstration planned jointly by MLIT and automakers**

**(Vehicles)**

**HEVs/EVs (PRIUS, LEAF, iMiEV)  
at stop emitting sounds**

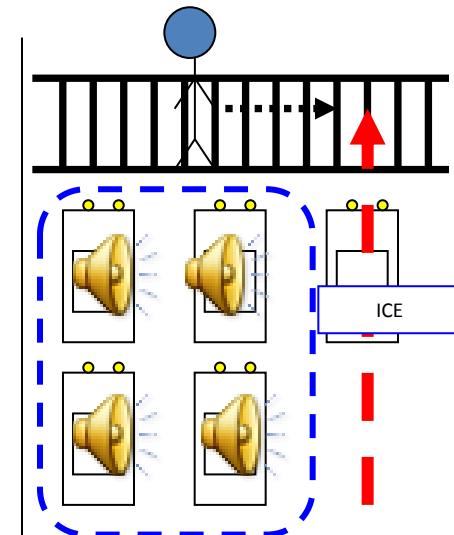
**(Scene)**

- Two or more HVs emit sounds while at stop
- Pedestrians pass in front of them. ICE cars pass by the pedestrians.



**Comments from the participants**

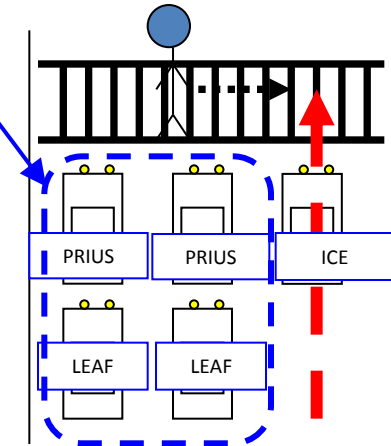
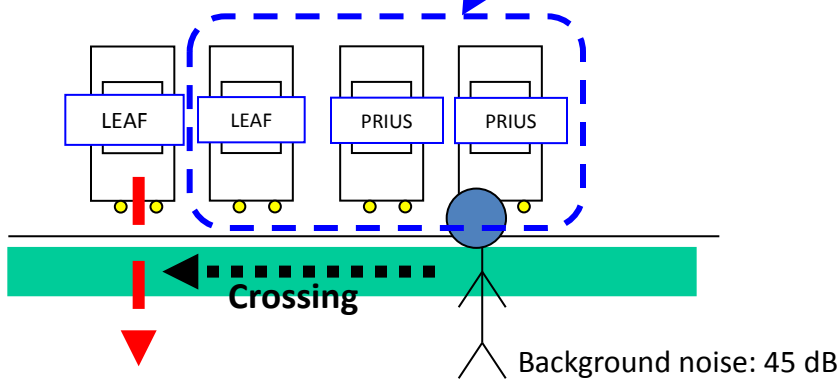
- **Might reduce pedestrians' detectability**  
In certain circumstances, sound emission might pose safety risks (See next page)
- **Sounds from multiple HEVs/EVs at stop may increase environment noise.**



## Risk posed by sounds from HEVs/EVs at stop:

- => Similar sounds being emitted by many cars make it difficult for pedestrians to identify the behavior of individual vehicles.
- => It would be better they don't emit these sound while at stop.

Sounds from cars at stop make it difficult for pedestrians to identify cars passing by them or cars starting off



Background noise: 55 dB



### 3. The other impact

Sound at stationary should not be mandate in global regulation because there is national or local government who prohibits sound at stationary during parking for noise issue.

<The example of local regulation in Tokyo>

The engine shall be turned off when a vehicle is parking in Tokyo according to local government regulation in Tokyo. A manager or owner of a parking lot which has area for more than 20 vehicles shall put up signboard which shows idling stop to users.

<Example of signboard for idling stop>



## < Examples of signboard for idling stop >

Signboards in Tokyo, Kanagawa, Chiba, Saitama, Tochigi post to stop engine "idling stop".



Tokyo



Kanagawa Prefecture

Idling Stop. Engine shall be turned off during stopping here.



Saitama Prefecture



Chiba Prefecture



Tochigi Prefecture