Aggregation of Ko-HAF Fleet Data on the Safety Server

**MOTIVATION**
- Map data of high spatial and temporal precision required for highly automated driving
- Occurrence of changes → HAD map has to be kept up to date
- Sensor data of multiple vehicles is processed on Safety Server to detect/update changes

**CHALLENGES**
- Observable features are hidden by other road users
- Drives on different lanes lead to different sightings
- Different types of changes
- Change or measurement error?

**AGGREGATION APPROACH**
**DRIVE AGGREGATION**
1. Gather drive data on Safety Server
2. Associate and optimize different drives

**CHANGE DETECTION**
1. Find consistent areas within drive data
2. Find changed areas

**REMAPPING**
1. Generate new map in changed region
2. Align new map with existing HAD map

**UNDERLYING METHODOLOGIES**
- SLAM graph based association/optimization
- SLAM graph based change detection

**FOLLOW UP**
- Extension of methods used
- More detailed quantification of map quality