



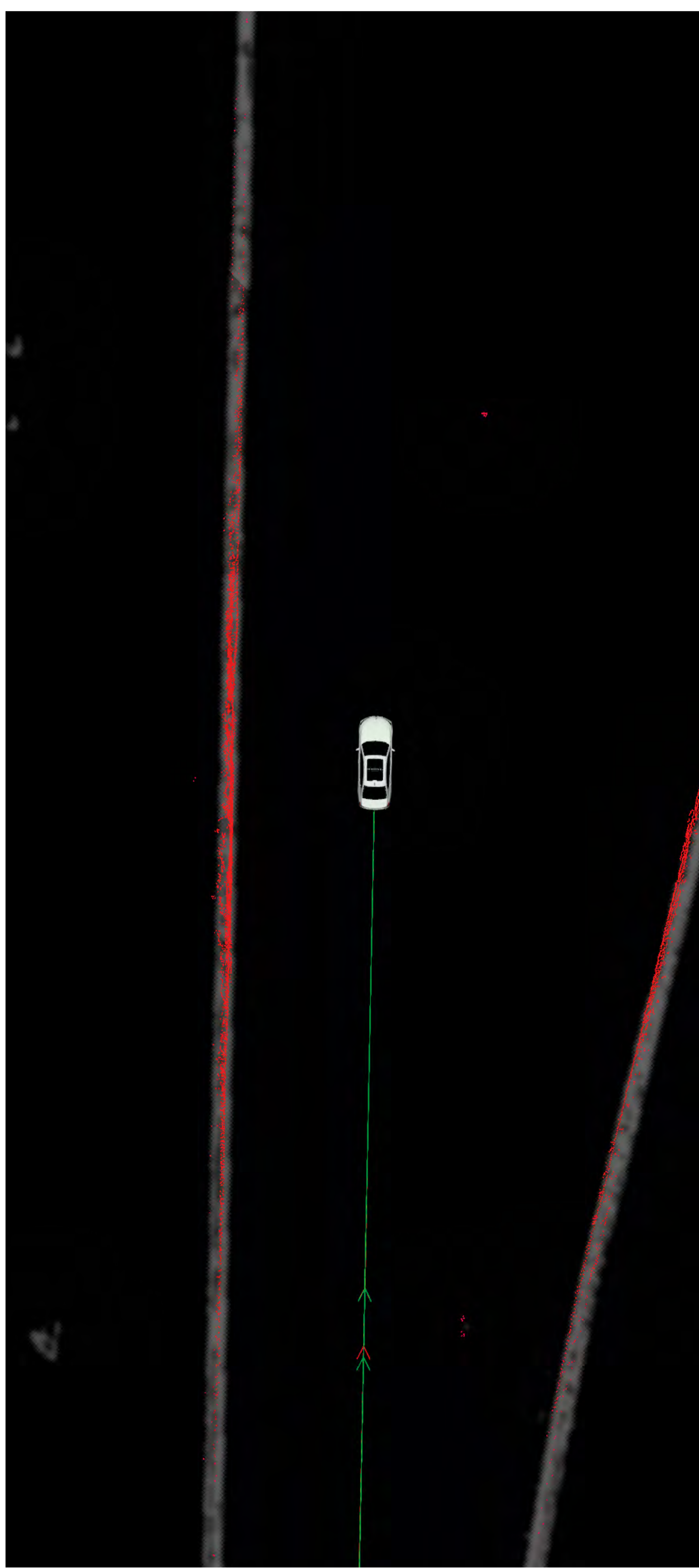
FRONTEND

Autonomous Reaction to Safety-Critical Situations on Highways

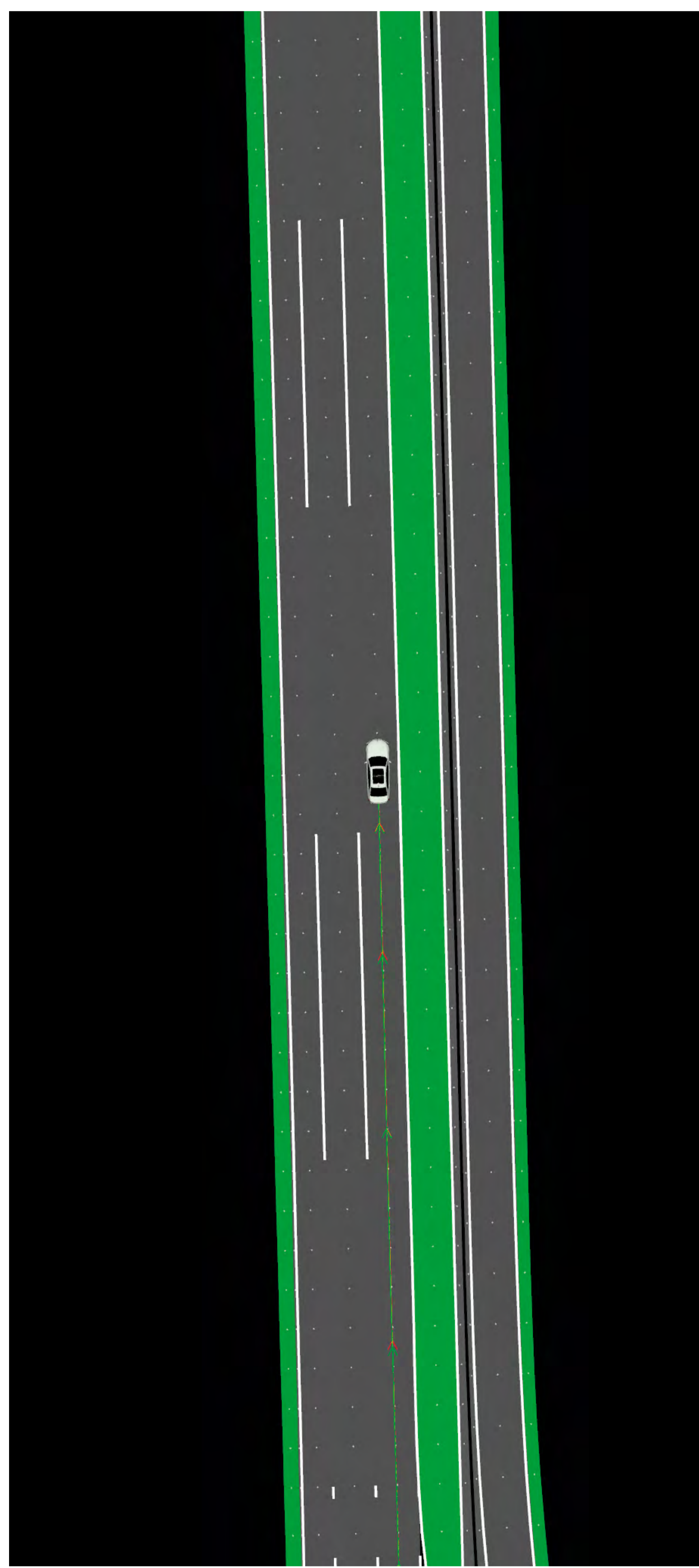
The Ko-HAF project evaluated the use of a safety server to exchange up-to-date map information and information about critical situations, such as obstacles on highway lanes. BMW will demonstrate the use of Safety Server information to safely react to a critical situation in a scenario where a highway lane is blocked by a ski box.

AWARENESS OF THE STATIC ENVIRONMENT

To be able to choose an appropriate tactical option as a reaction to a critical situation, the vehicle needs to be aware of the road and lane topology around it. Knowledge about the static environment comes from map data in combination with a precise localization and from sensor data. A resulting hypothesis is generated after fusing both sources of information.



Localization



Map Content



Fusion Result

The resulting knowledge of the lane topology and geometry is the basis for planning appropriate reactions.

DEMO CASE: HIGHWAY DRIVE WITH OBSTACLE ON LANE

The following scenes will be displayed in BMW's demo showcase

1. Highway entry
Through its awareness of the static environment, the vehicle is informed that it is on an entry lane and needs to merge onto the highway.

