SENSOR FUSION MAP NOTE: This data can be aggregated with all Autonomous trailer & lead car other trailers, and crete an Al feedback loop. This can inform software updates so trailers continue to get "smarter" over time. CLOUD DATA WEATHER FEEDBACK LOCATION DATA DATA NOTE: Multiple trailers could follow a single LOOP lead car. Other trailers and lead cars would also feed data into the cloud analysis. This **ALERTS** 5G would enable a "hive mind" smart fleet. FROM TRIANG-ULATION CLOUD DATA FEED **ERATION &** PRESSURE VELOCITY LEAD ONBOARD DECISION SHORT & GENERAL GAS OR ENVIRO-**ENGINE** HUB ONG RANGE **ENGINE BATTERY** UNIFIED NMENT REAL-TIME HEAT RADAR LEVEL "HEALTH" SENSOR LIDAR TRAILER **FUSION** INFO VEHICLE GROUND ULTRA-BATTERY ACCEL-PENET-SONIC INFRARED CHARGE **ERATION &** VEHICLE LED SURFACE OBJECT LEVEL VELOCITY COMMS DETECT INTERIOR CARGO MOTION & DRIVER'S DASHBOARD MONITOR: MONITOR: **ENGINE VIBRATION** BLIND **HEADS-UP** POSITION WEIGHT "HEALTH" DETECT SPOTS DISPLAY ALERTS HUMAN TOUCH-POINTS DATA LIDAR ON LIDAR ON FEED 4 CORNERS 4 CORNERS OF VEHICLE OF VEHICLE ALERTS CARGO SHORT & SHORT & MOTION & MONITOR: ONG RANGE LONG RANGE **VIBRATION** DATA POSITION COMPUTER RADAR RADAR DETECT COMPUTER FEED VISION VISION CAMERAS CAMERAS NOTE: The lead car could also be an CARGO THEFT autonomous vehicle. The AV trailers can MONITOR: DETERRENT be linked with any lead car that supports WEIGHT HEADthe pairing feature. The AI can coordinate. LIGHT LIGHT & BRAKE & BRAKE COMBO COMBO INFRARED & INFRARED & <u></u> **% ULTRASONIC ULTRASONIC** GROUND PENET-NEAR INFRARED PROXIMITY PROXIMITY O DETECTS ICY O O SENSORS SENSORS & WET ROAD RATING LED SURFACE CONDITONS RADAR DETECT