



HD Maps for Virtual and Augmented Reality

Xin Chen, Ph.D.
Director, HERE Technologies
November 12, 2019

HERE Technologies

200
Countries mapped



8,000+
Employees in 56 countries
focused on delivering the world's best
map and location technologies



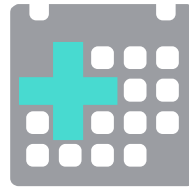
HERE Maps on board of
100M
vehicles and counting

28
TB map data



4 of 5
In-car navigation
systems in Europe
and North America
use HERE maps

30+
Years of
experience
transforming
location
technology



700,000
3D data points
per second per car

400
HERE cars
collecting
data for
our
maps





Virtual



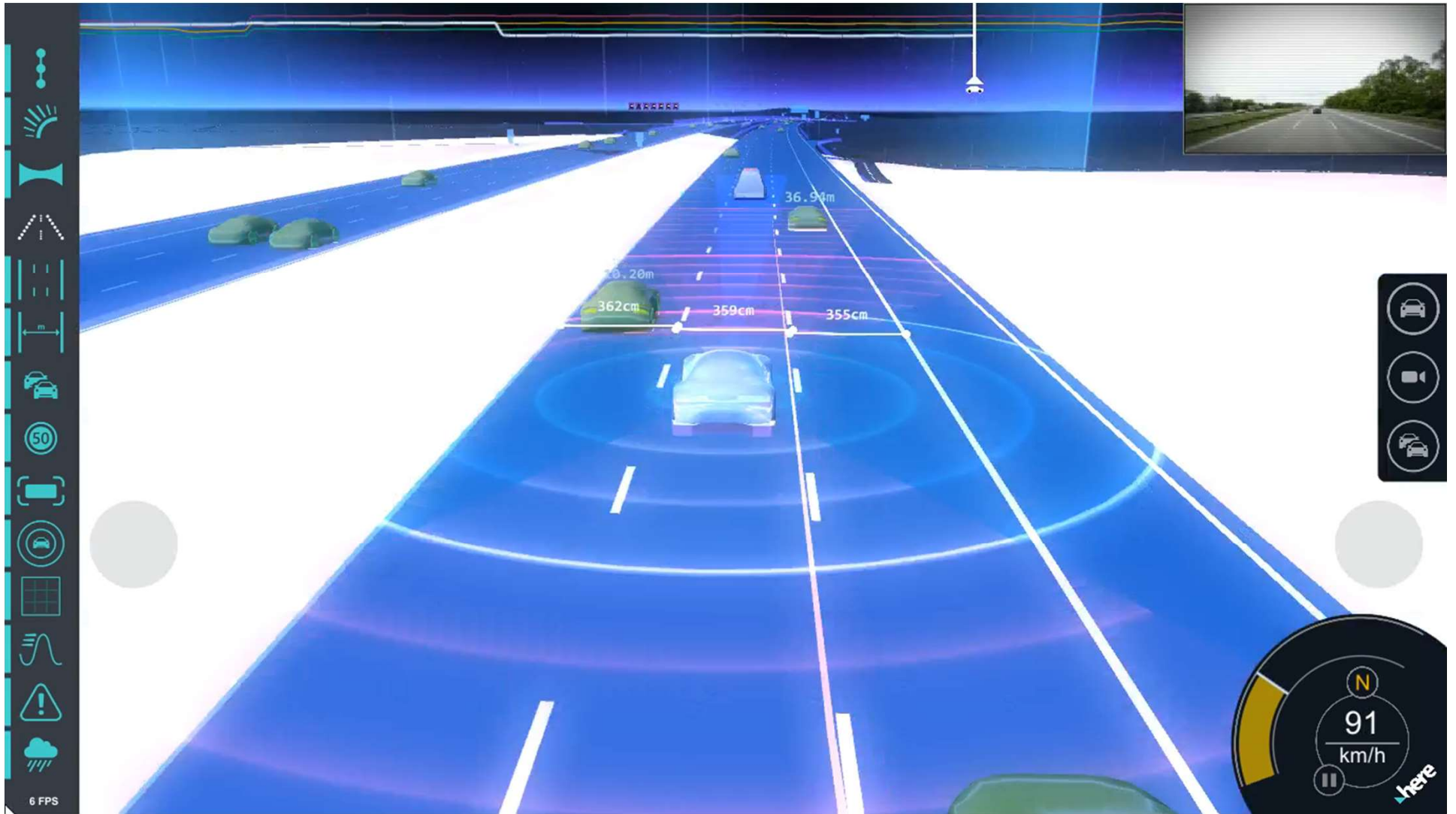
Reality

1. DIGITAL REPRESENTATION of the PHYSICAL WORLD
2. High Definition Positioning

An aerial photograph of a city skyline, likely Tokyo, featuring the Tokyo Tower in the center. The image is overlaid with a semi-transparent teal rectangle containing white and orange text. The sky is filled with grey, overcast clouds.

ENABLING AN
AUTONOMOUS WORLD
FOR EVERYONE

SAFETY + EFFICIENCY

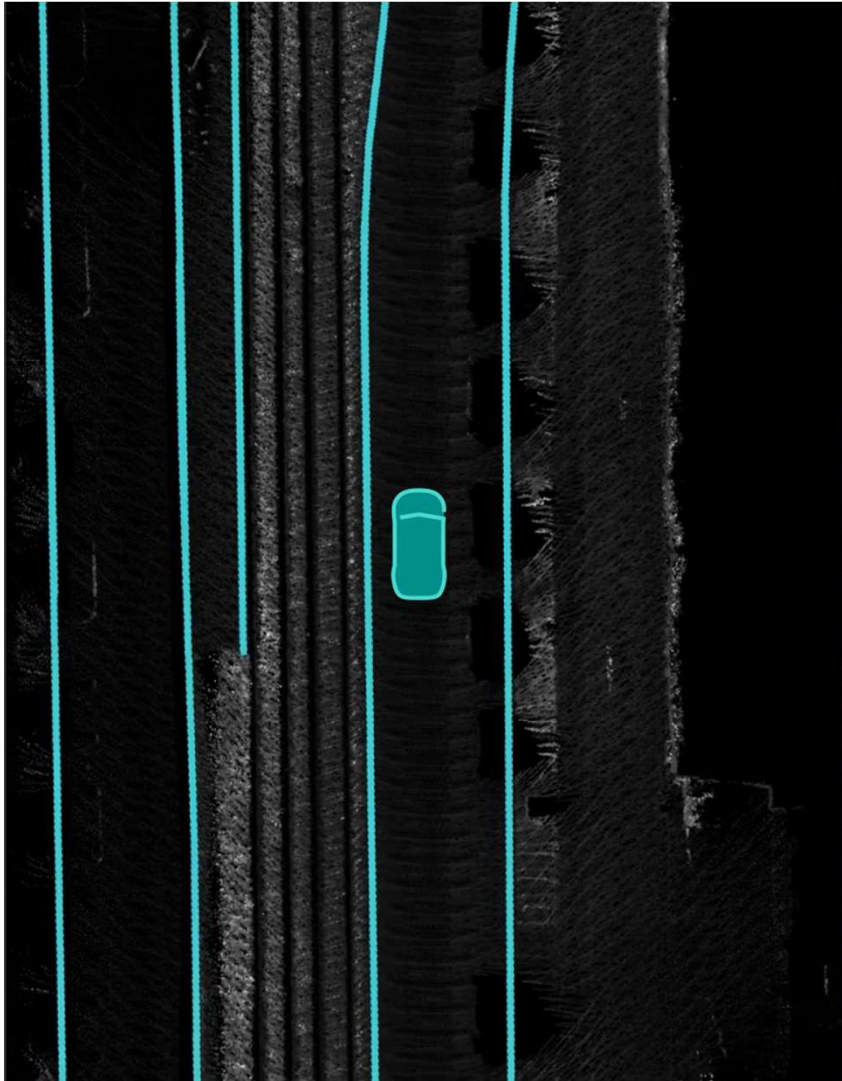


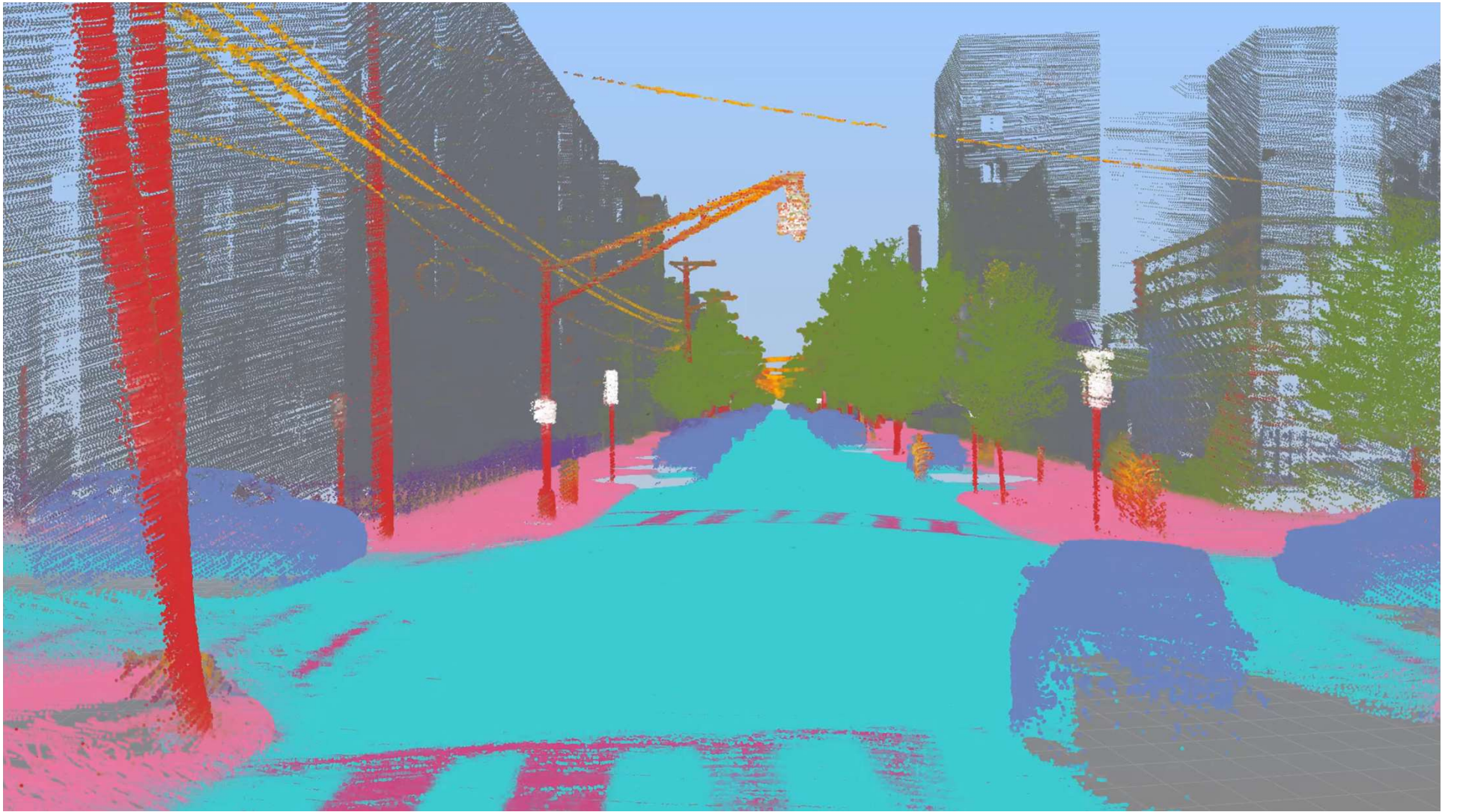




Building the foundation with our fleet





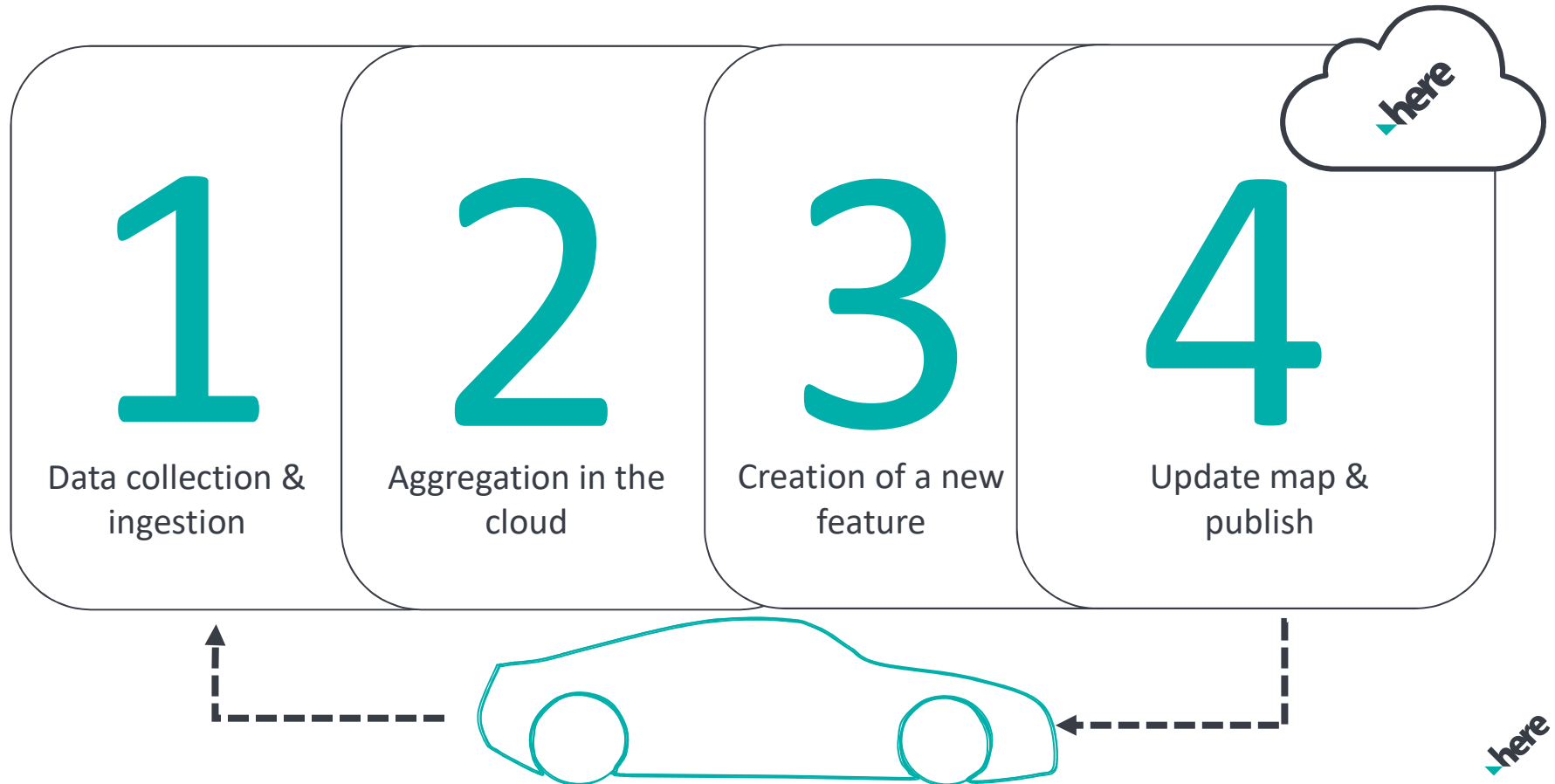




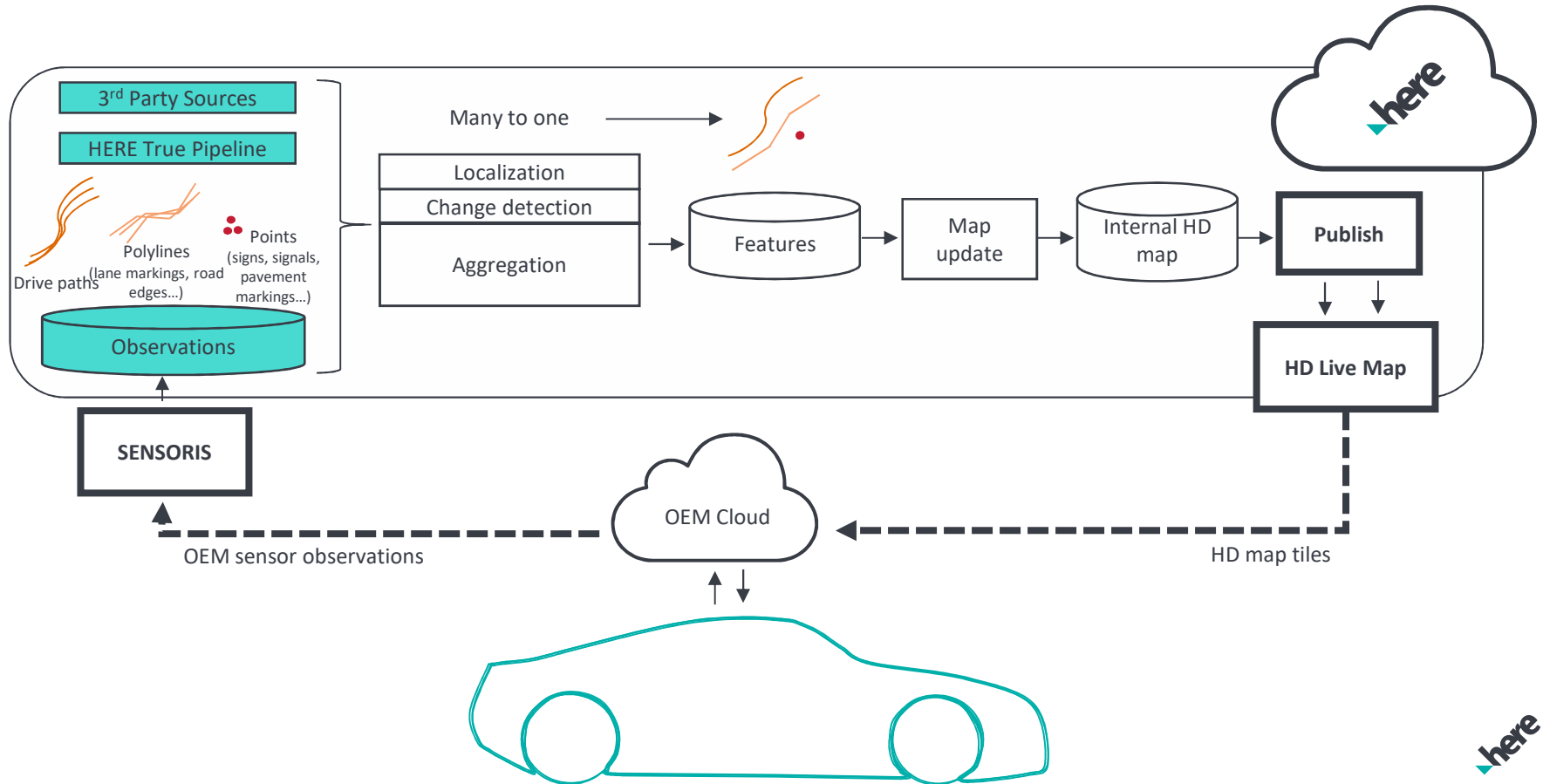
Maintaining the map with the crowd



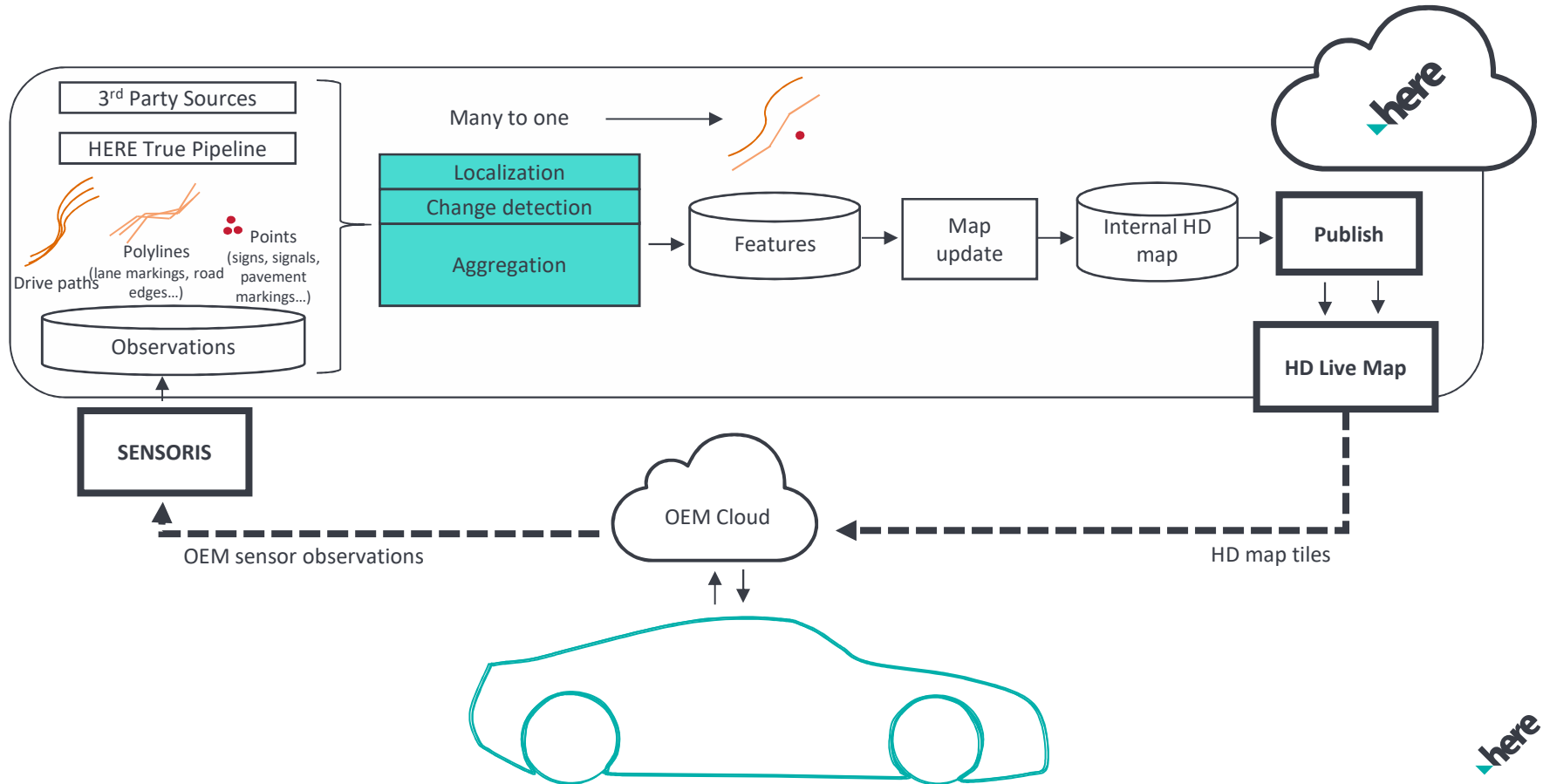
HERE's self-healing map process



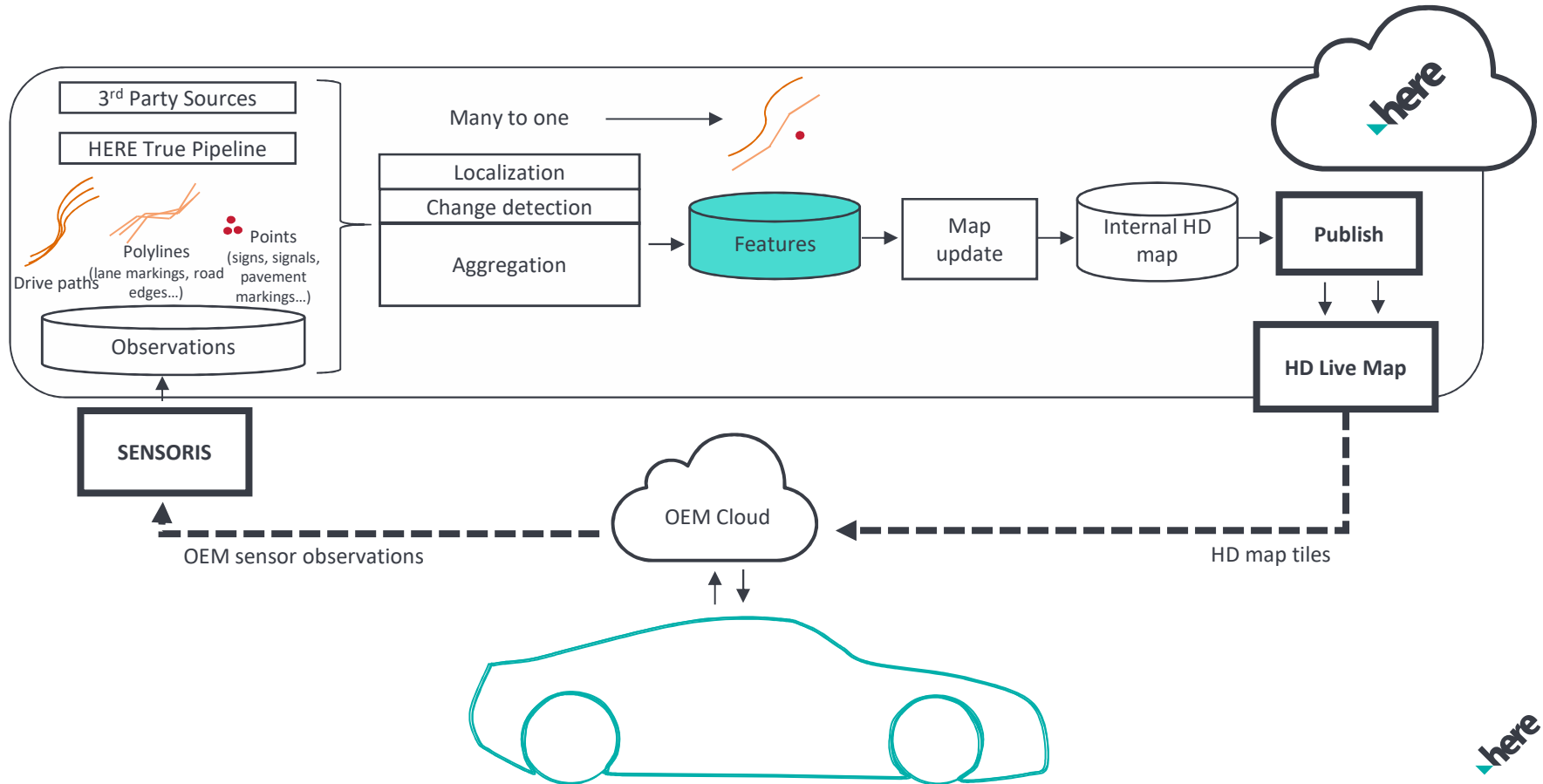
HERE's self-healing map process



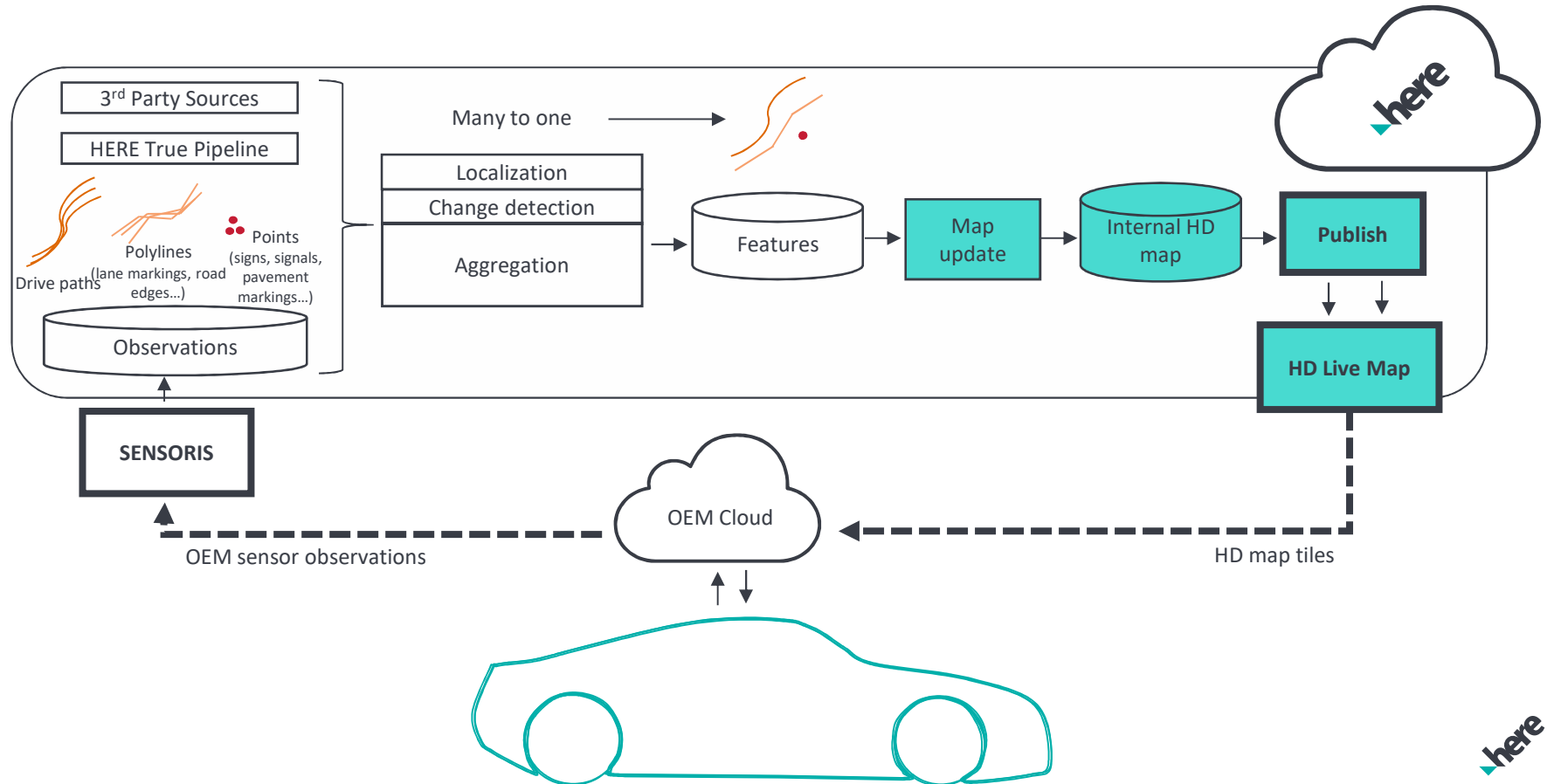
HERE's self-healing map process



HERE's self-healing map process



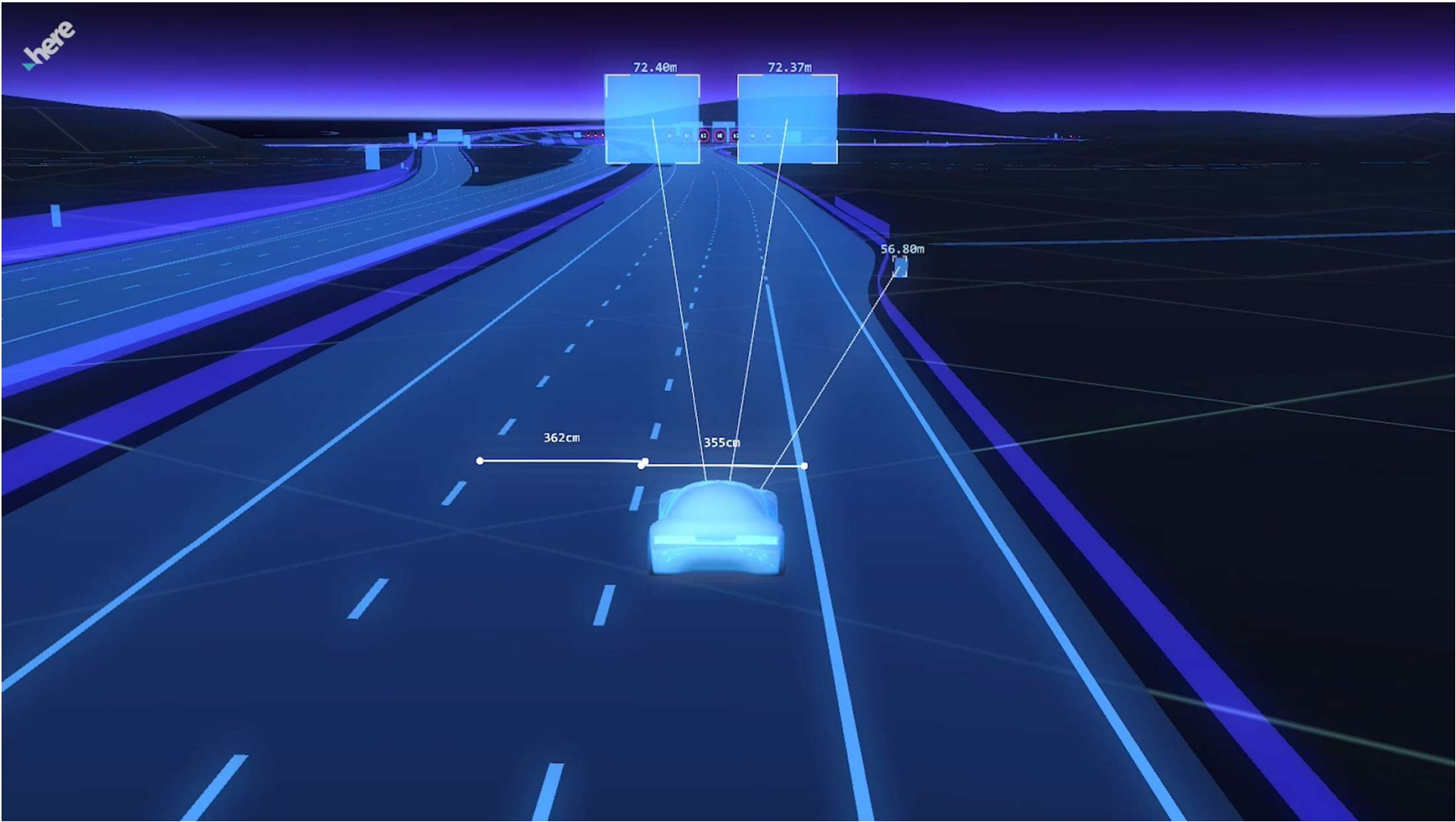
HERE's self-healing map process





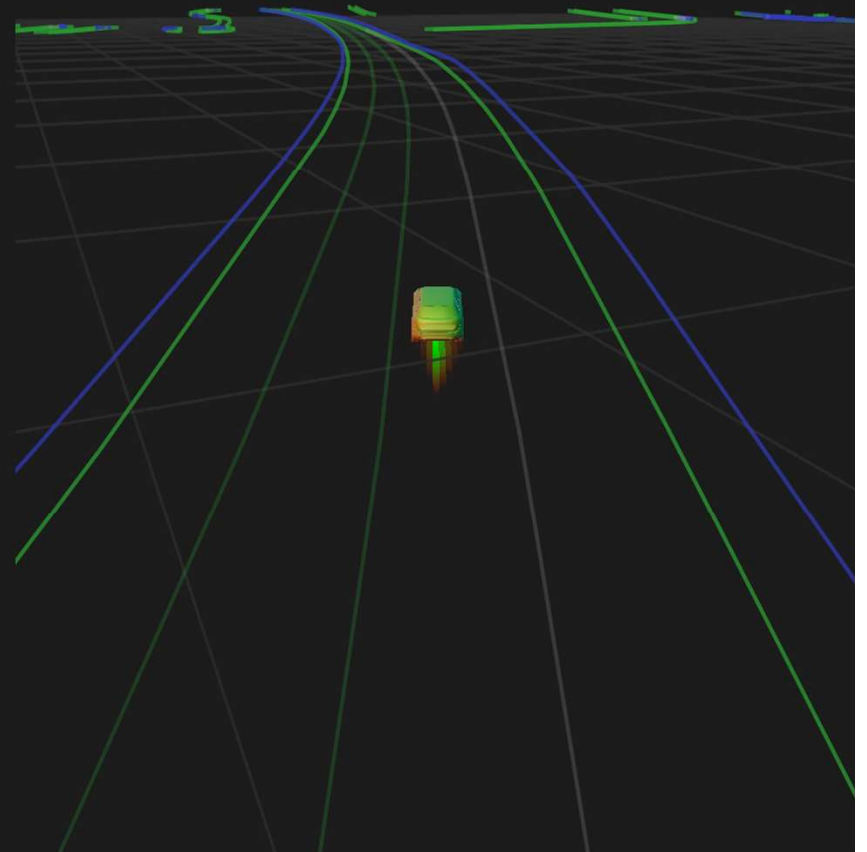
Augmented/Mixed Reality

High Definition Positioning



Lyon, Foggy

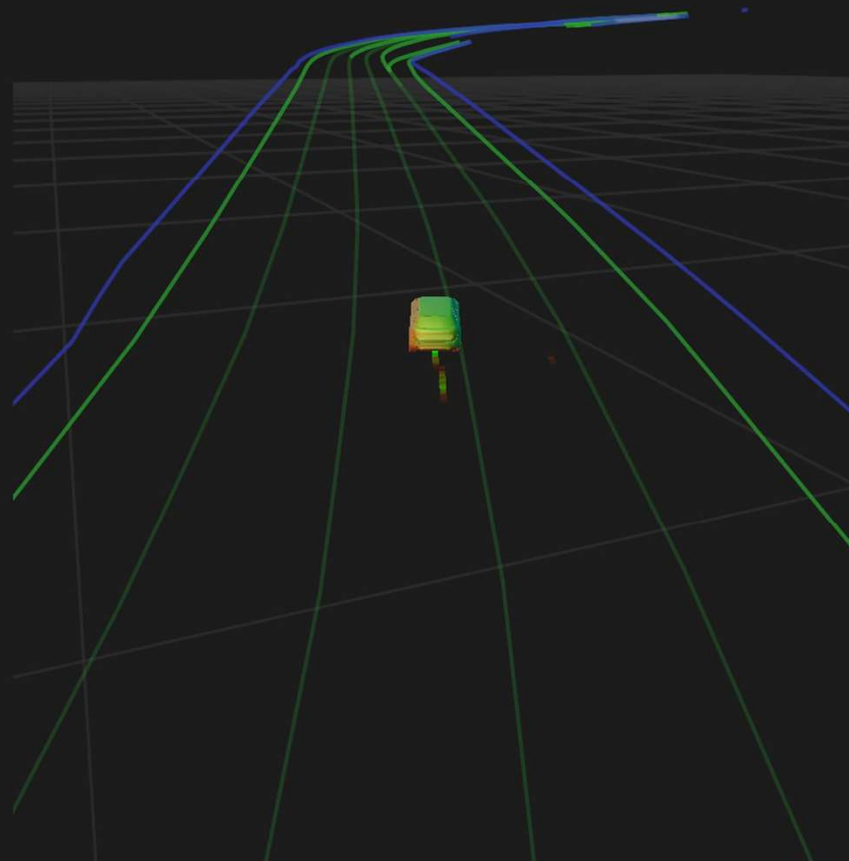
NVIDIA Drive Xavier



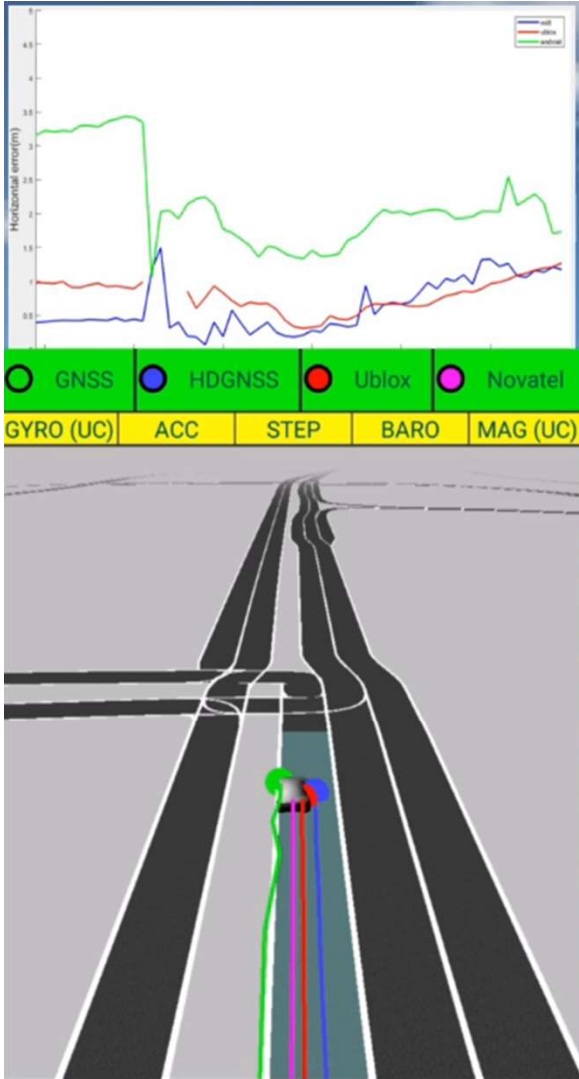
Courtesy of NVIDIA

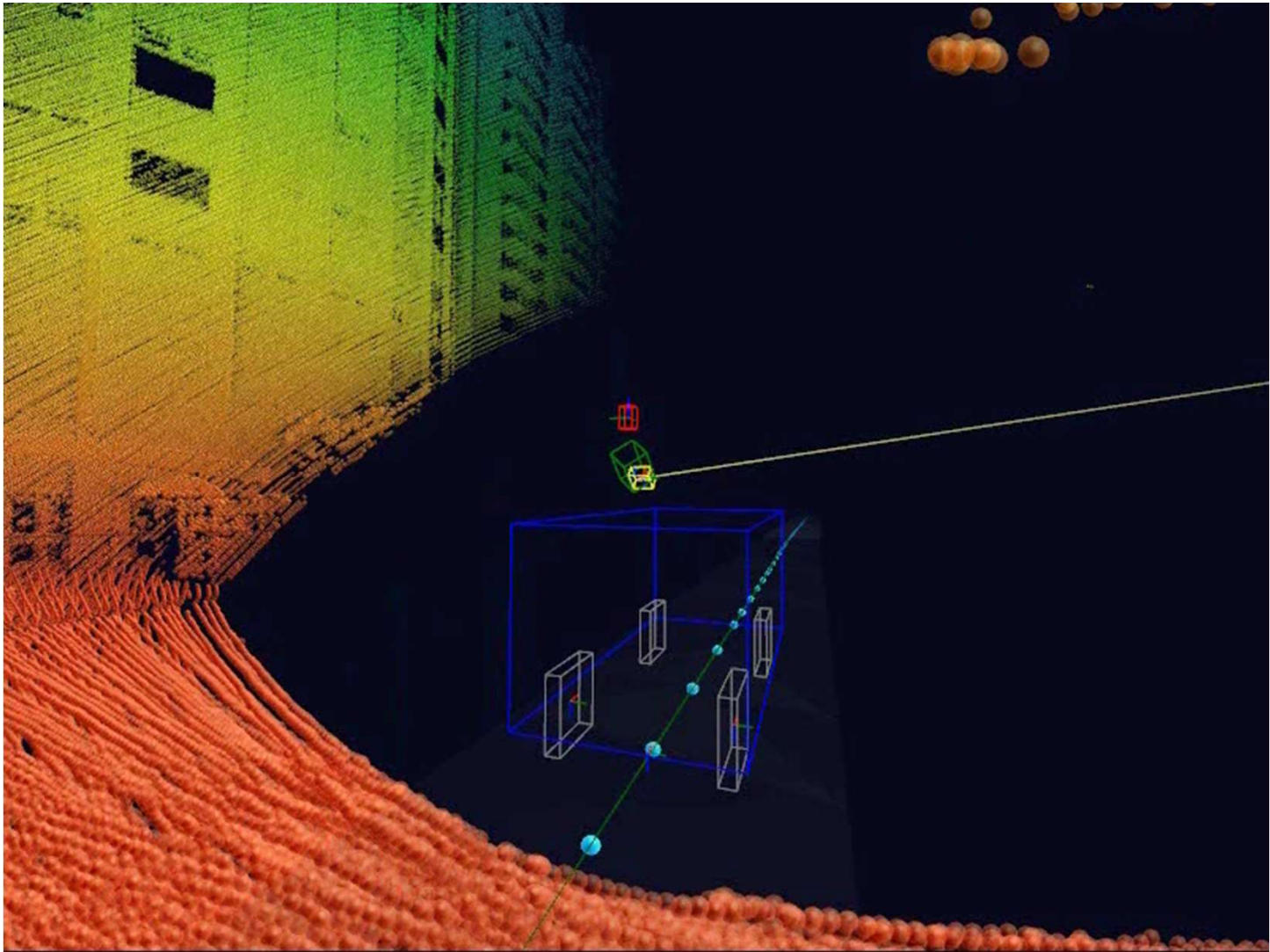
Oakland, Tunnel, Night

NVIDIA Drive Xavier

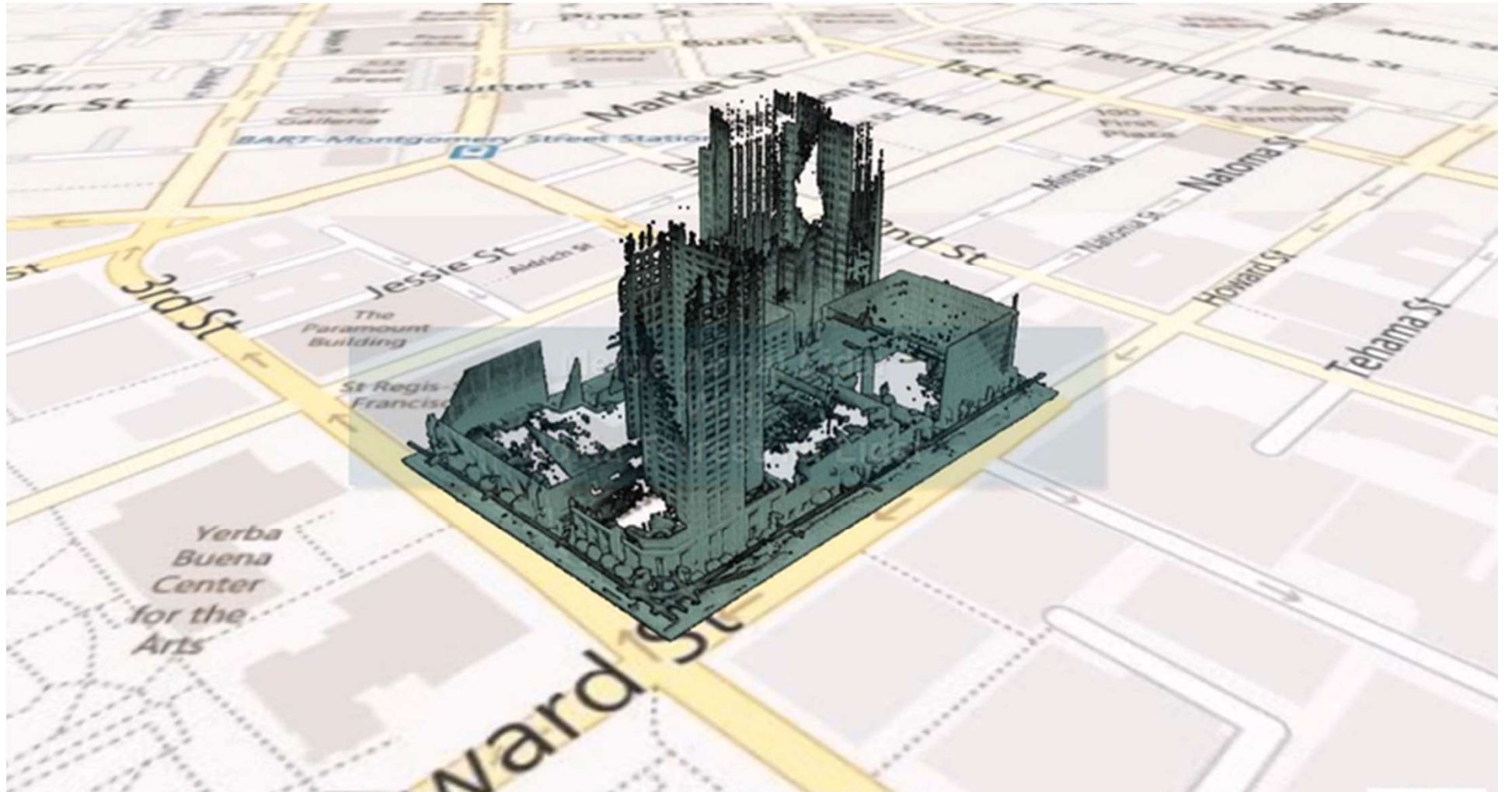


Courtesy of NVIDIA





here







Learn more at here.com

Contact: Dr. Xin Chen
xin.5.chen@here.com