



BIG (TRAFFIC) DATA

April 2017

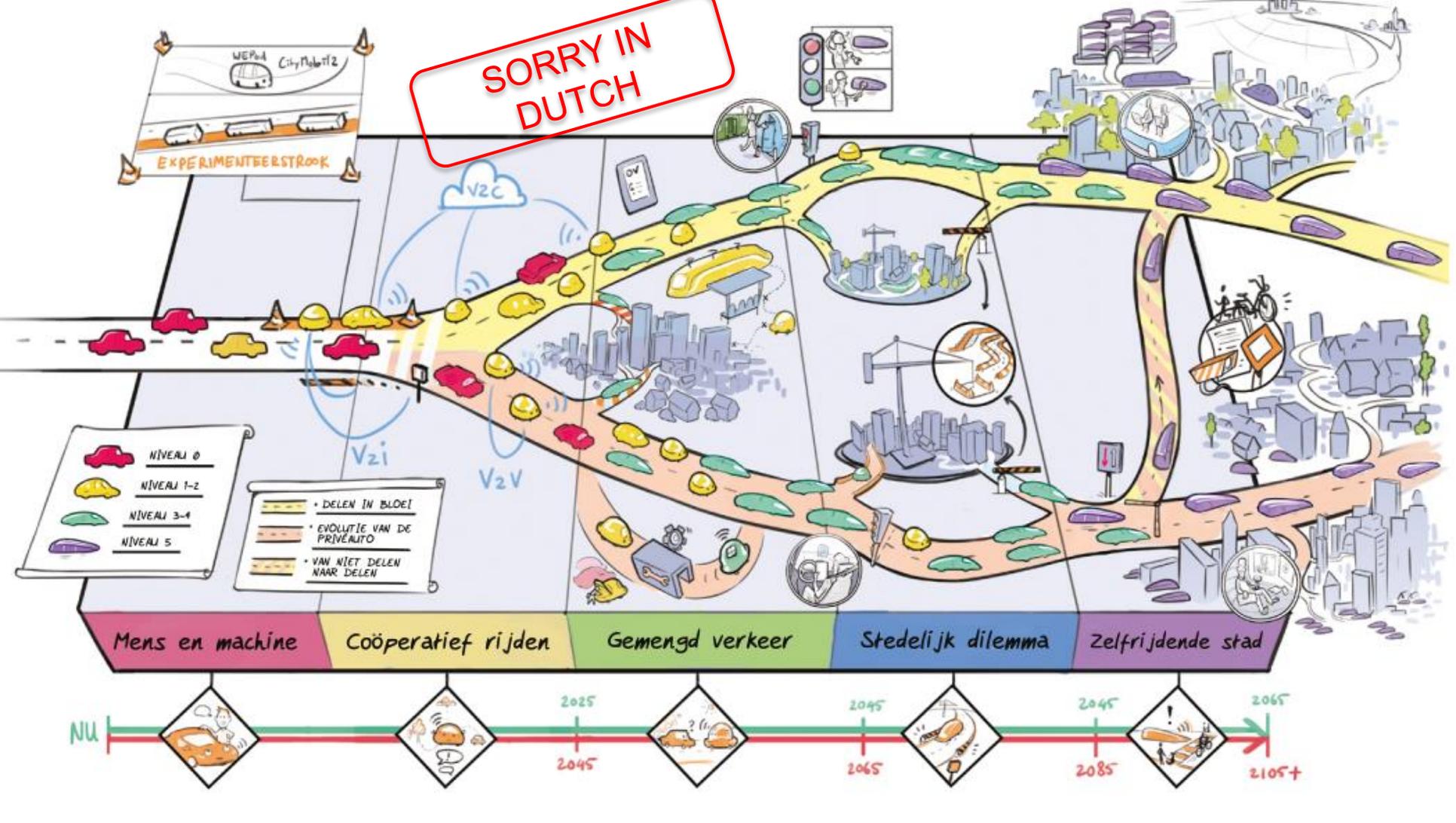
Daan Scheer

Sales & Business development

TOMTOM  **MAPS**

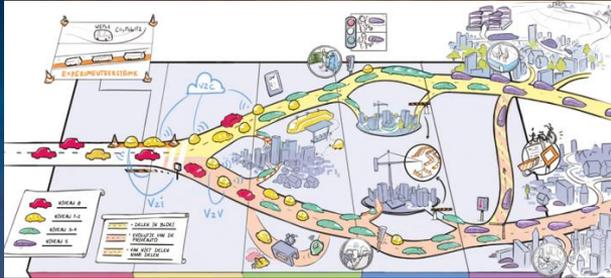
(CON)FUSING TIMES

SORRY IN DUTCH

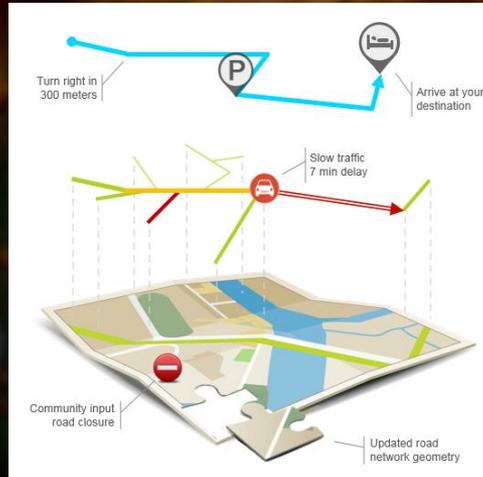


(CON)FUSING TIMES

HAD WHEN?



SAAS/MAAS/..AAS



DATA HUNGRY

TOMTOM CURFER

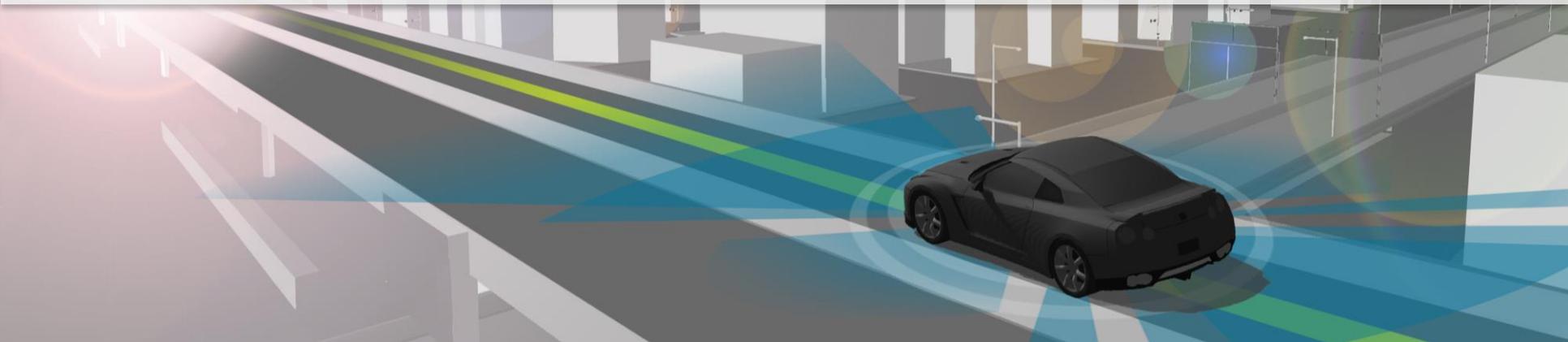
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LEADING THE WAY
TO A FUTURE OF
**SMARTER
MOBILITY &
AUTONOMOUS
DRIVING**

Smart Cities & Autonomous driving: Fundamental transformation of Mobility & Logistics



THATS ALL GREAT BUT WHAT ABOUT TODAY?



ANALYSIS

- INSURANCE COSTS
- (ECO) DRIVER BEHAVIOR
- COST REDUCTION MODELS

OPTIMIZATION

- EFFICIENCY
- KPI'S ON ETA'S
- CUSTOMER 😊

CORREOS POSTAL SERVICES

Universal postal service

- > 9.000 service points
- > 13.000 vehicles
- > 700.000 KM per day

Focus on efficiency, quality and sustainability

Challenge

Use of traditional postal services declines
Optimize resources to save time, money & environment



Map



Logistics



ArcGIS[®]

- Optimized planning
- More reliable routes
- Reduced fuel consumption

CORREOS POSTAL SERVICES



**10 minutes
saved**

Further optimization possible with:

- **On-trip guidance & re-routing with Real Time Traffic**
- **Pre-trip planning including (custom) Speed Profiles**

EXAMPLE: TIME DEPENDENT ROUTING

Thursday 13:00

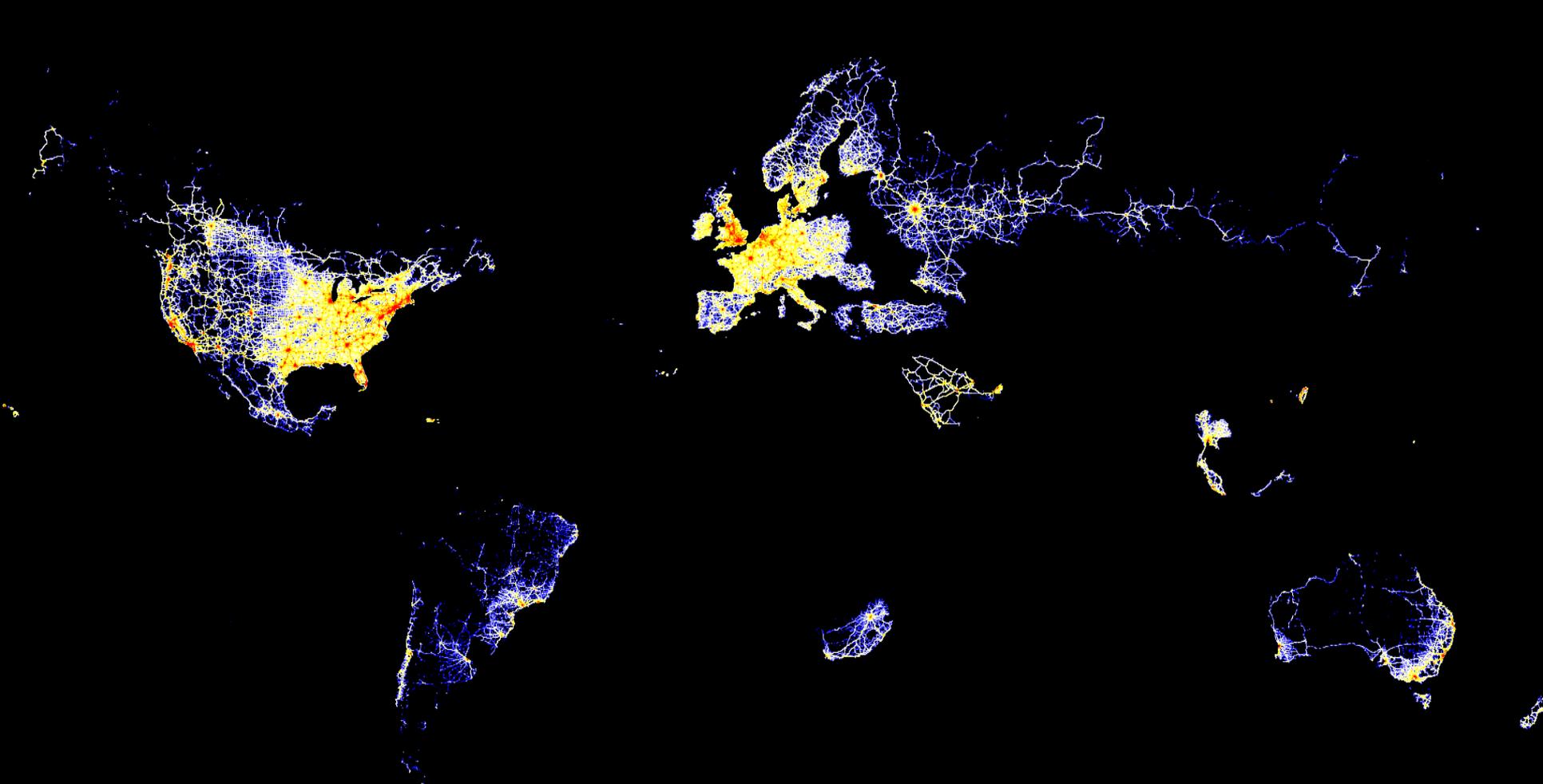


Travel Time: 67 minutes - Distance: 52.7 km

Thursday 18:00

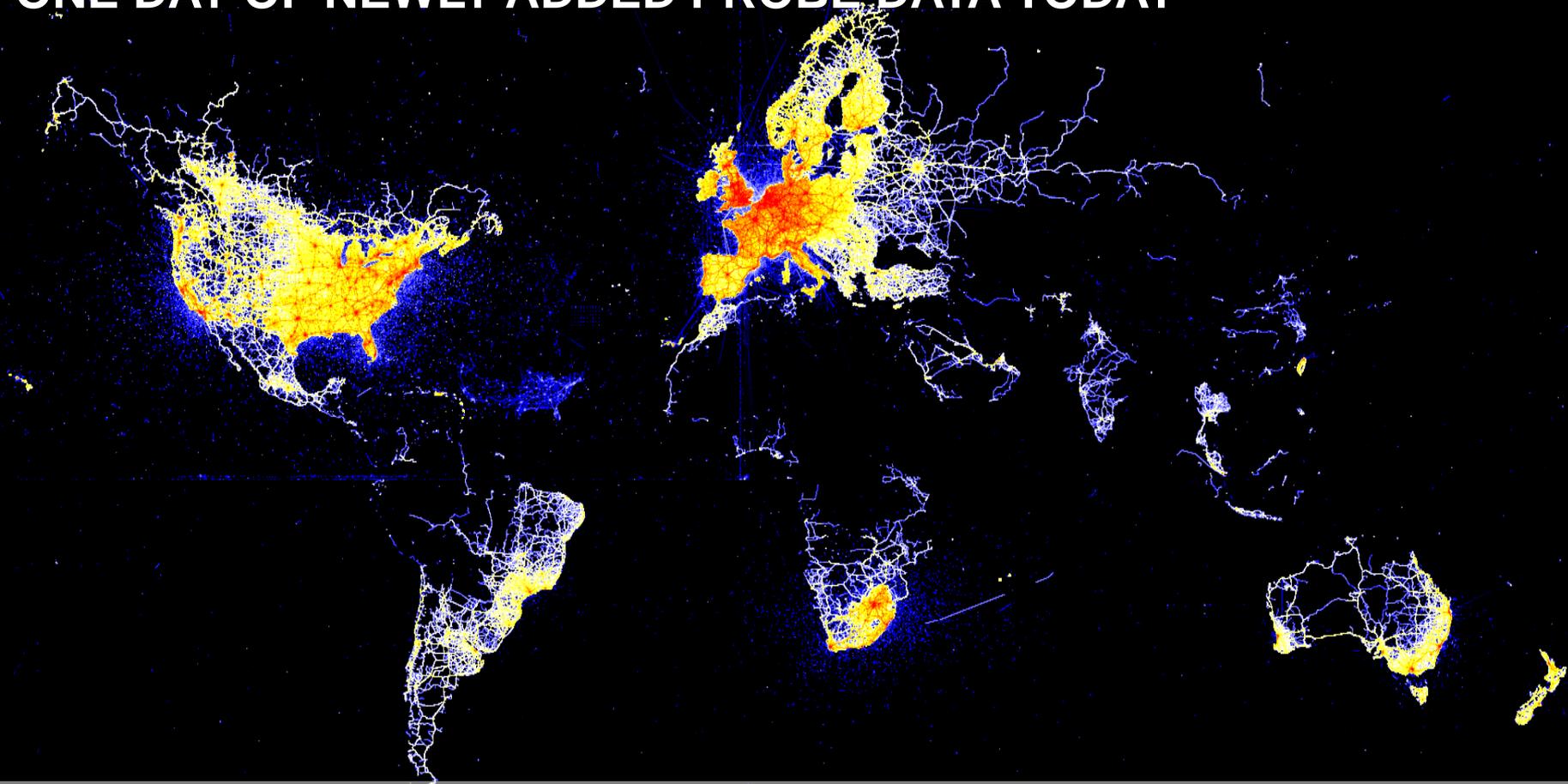


Travel Time: 83 minutes - Distance: 55.7 km



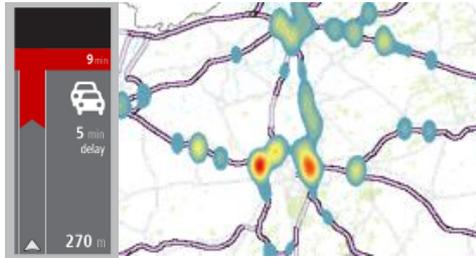
ONE DAY OF NEWLY ADDED PROBE DATA EARLY 2016

ONE DAY OF NEWLY ADDED PROBE DATA TODAY



Continuous improvement of Traffic Coverage

PROBE DATA LEADING INTO INNOVATIONS



Jam ahead warnings



Turn Dependent Jams



Traffic Flow and Jam prediction

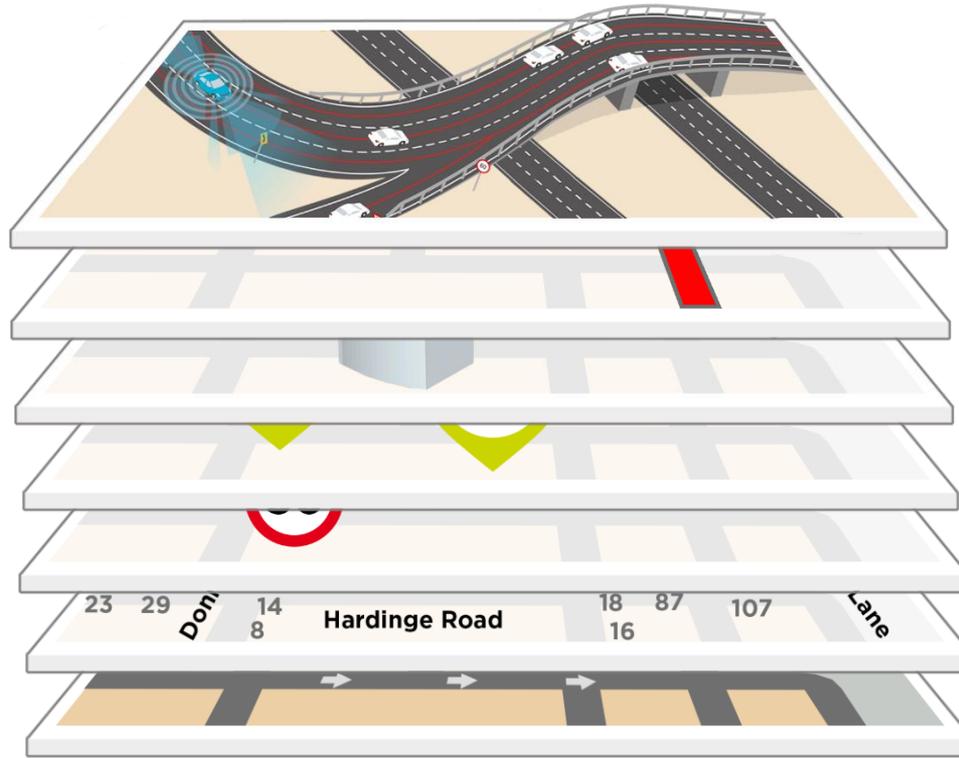


Weather related traffic



Automatic road work & closure detection

BUT ALSO MAPS CONTINUES TO EVOLVE



.....
HD & ROADDNA
.....
ADAS
.....
3D
.....
POI
.....
TRAFFIC SIGNS
.....
ADDRESSING
.....
ROAD NETWORK

.....
AUTOMATED DRIVING
.....
DRIVER ASSISTANCE
.....
VISUALIZATION
.....
SEARCH
.....
NAVIGATION
.....
GEOCODING
.....
ROUTING

TOWARDS

HIGHER ACCURACY & FULL ATTRIBUTION

Highly Detailed

(objects which can be seen)

3D lane geometry:

Lane markings

Drivable surface borders

Road boundaries

Highly Accurate

Sub meter absolute

Decimeter level relative

Richly Attributed

(including inferred attributes)

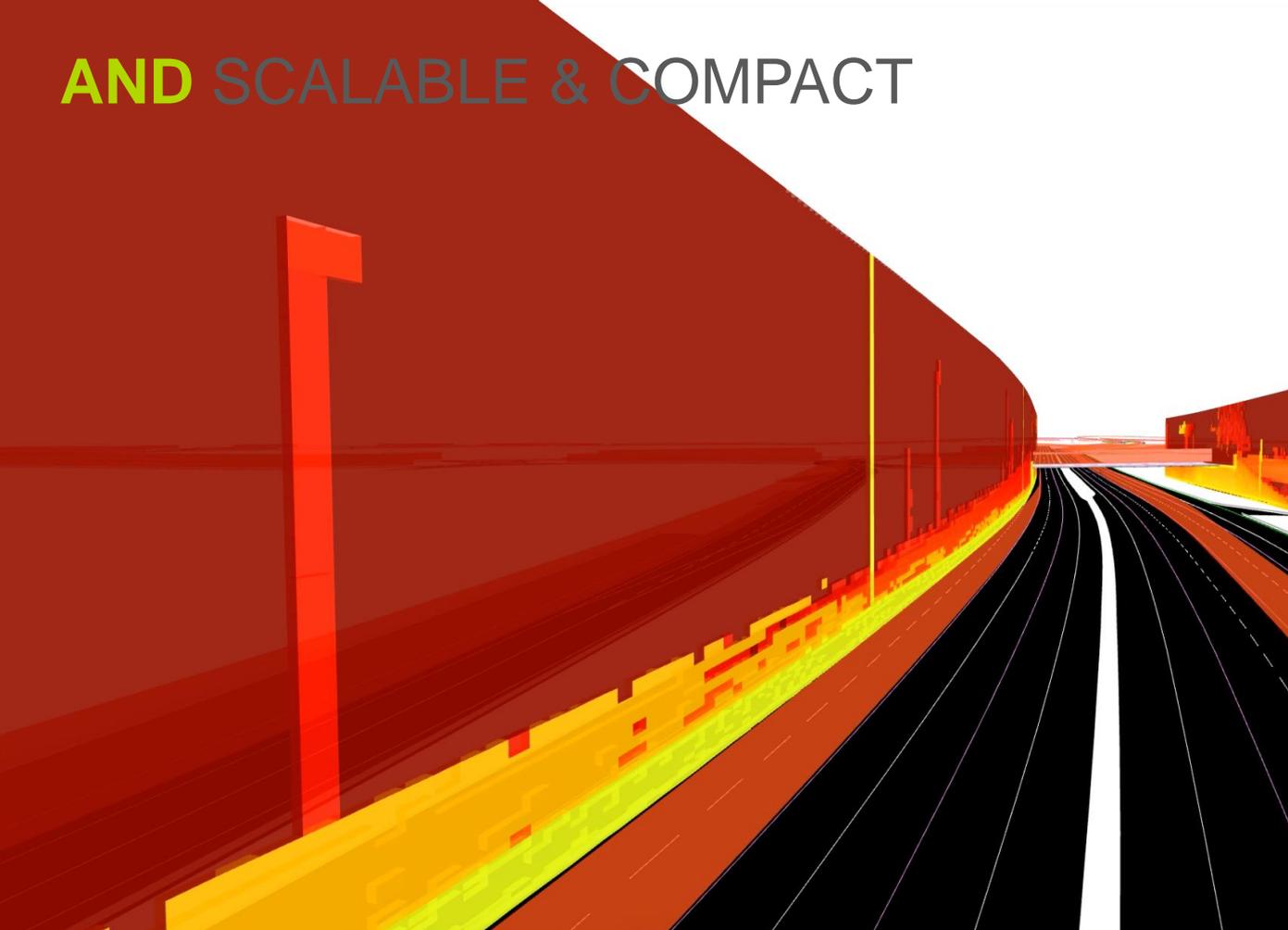
Lane level attributes:

Speed restrictions

Lane centerlines

Lane widths

AND SCALABLE & COMPACT



Robust

Resilient towards changes in reality or map version

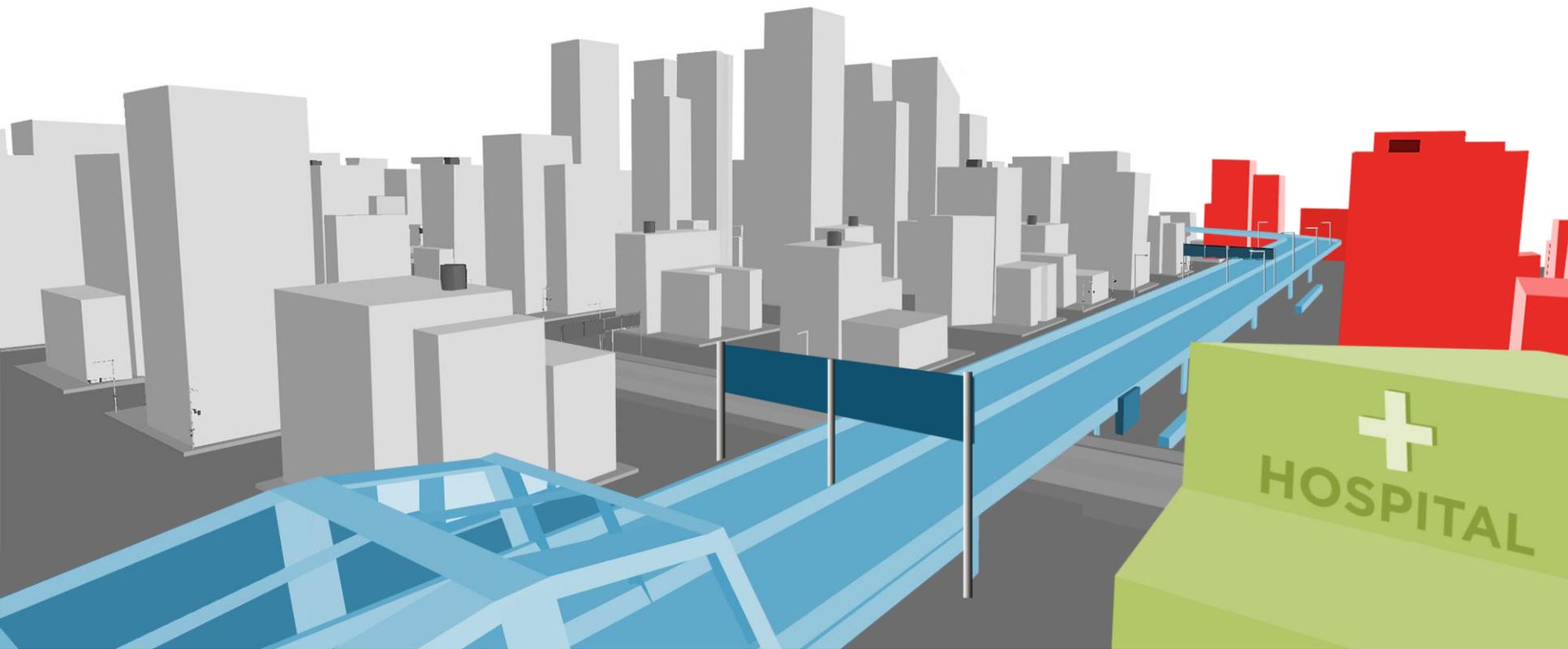
Scalable

Low storage
Low processing

Highly Accurate

<0.5 m longitudinal and
<0.15 m lateral accuracy

MAPS MUST REFLECT THE DYNAMIC NATURE OF THIS NEW CONNECTED WORLD



INTELLIGENT MAPMAKING ENABLES TOMTOM TO CONTINUALLY PUBLISH A HIGHLY ACCURATE MAP EFFICIENTLY

Mobile Mapping



Field Survey



Active Community Input



Probe Data



Authoritative Sources

INTELLIGENT
MAPMAKING



Sensor Data

TRADITIONAL METHODS

COMMUNITY INPUT



**ALL THIS ACCURATE DATA IS KEY TO SMARTER
DECISIONS
TODAY & TOMORROW**

**POWERED BY
REAL TIME MAPS & PROBE DATA**





Search



Traffic



Routing



Geocoding



Maps



ETA

Thank you

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