



# DRIVE MAPPING ECOSYSTEM (1)

Justyna Zander, *PhD*

March 20, 2019

# NVIDIA DRIVE MAPPING

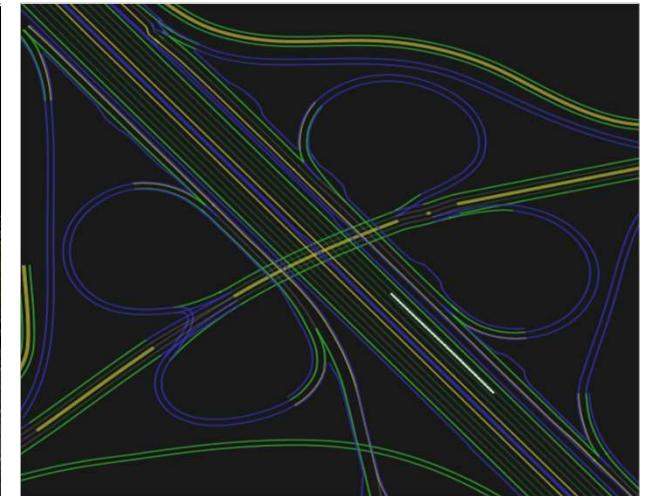
Localize Globally, Update HD Maps, and Create MyRoute



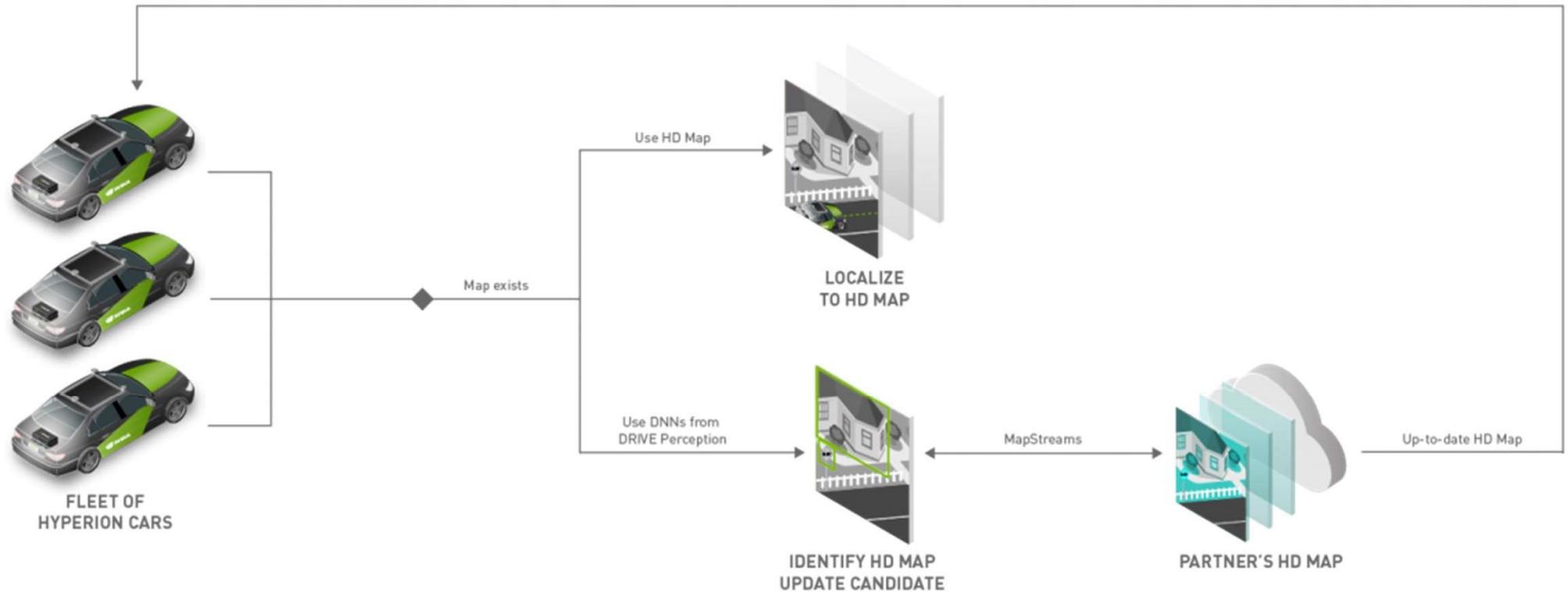
**Map Localization**  
Using DRIVE Localization API



**Map Update**  
Using DRIVE MapStream API



**Map Creation**  
Using DRIVE MapStream/MapServices API



# DRIVE LOCALIZATION

Localizing to HD Maps Worldwide

Performance | Efficiency | Robustness | Accuracy  
Mass Market Solution | Cost Effective Sensors  
Scalable | Global Ecosystem Partners  
Open | Available to Any Mapping Company



# DELIVERING A GLOBAL LOCALIZATION SOLUTION

Partnering with the world's Leading Mapping Companies



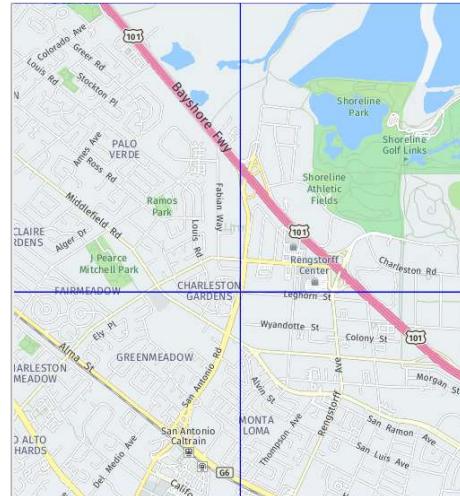
USA | Europe | Japan  
China | Taiwan | other countries

# LOCALIZATION STEPS

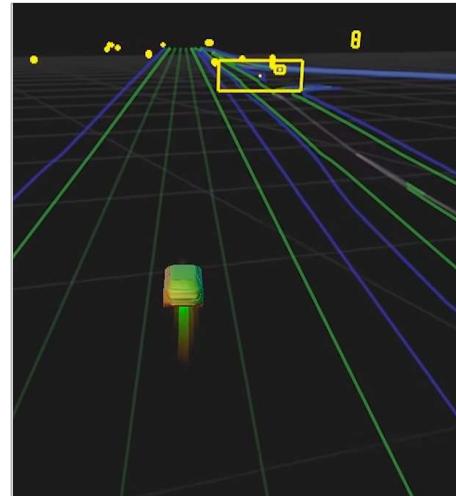
## HERE example



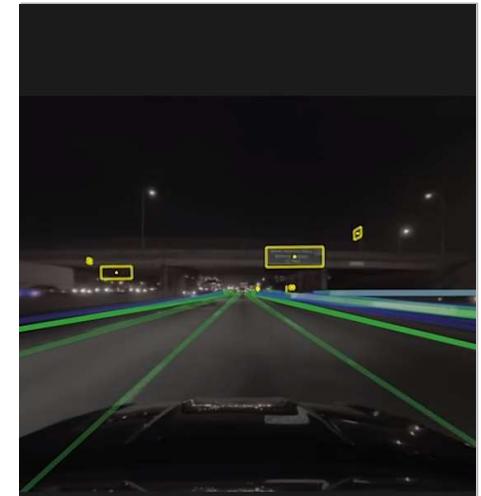
Detect  
MapNet



Project  
HERE HD Live Map



Match  
DLA and CUDA



Drive  
DRIVE Software



# DRIVE MAPPING ECOSYSTEM (2)

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# **DRIVE MAPSTREAM**

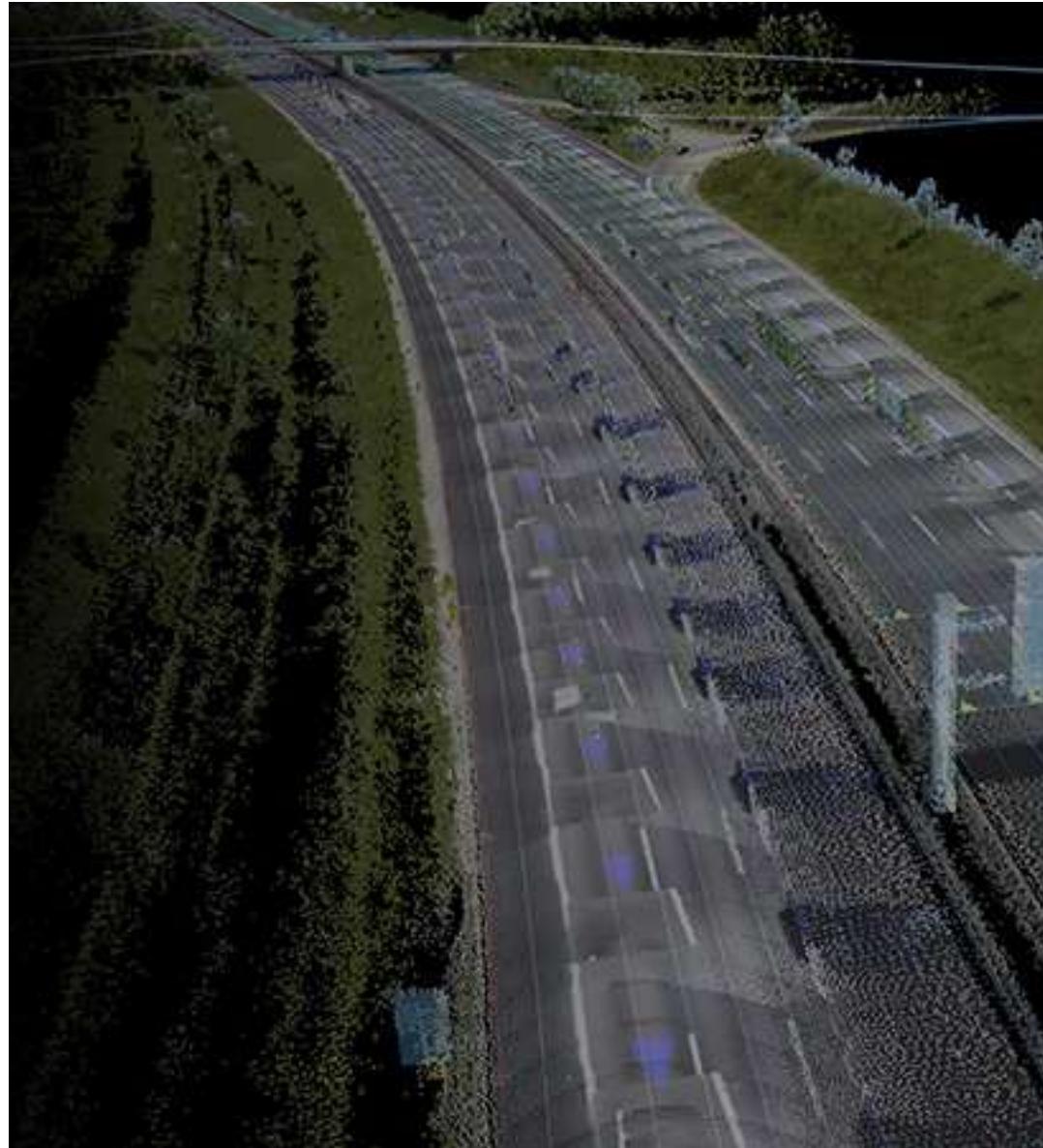
Keeping HD Map Up To Date

Enables Constant Map Update and Delivery

Available API | Open | Scalable

Supported by Major Mapping Companies

Crowdsourced from OEM Cars

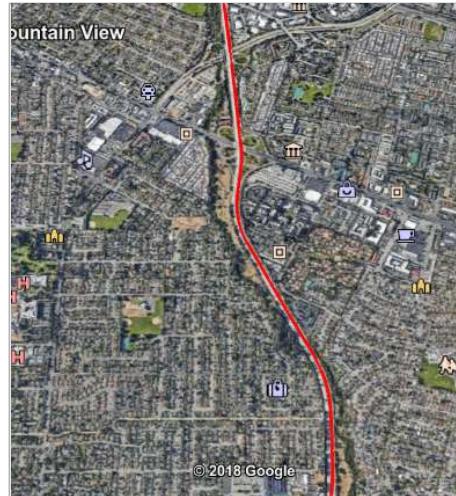


# MAP UPDATE STEPS

## TomTom example on I-85 in CA



**Detect**  
MapNet



**Create MapStreams**  
Map update primitives



**Convert**  
MapStreams to Roadagograms



**Update Map**  
HD map in the Cloud

# DRIVE MAPPING - END PRODUCTS

## Localization

DRIVE Localization  
to localize  
to any HD map globally

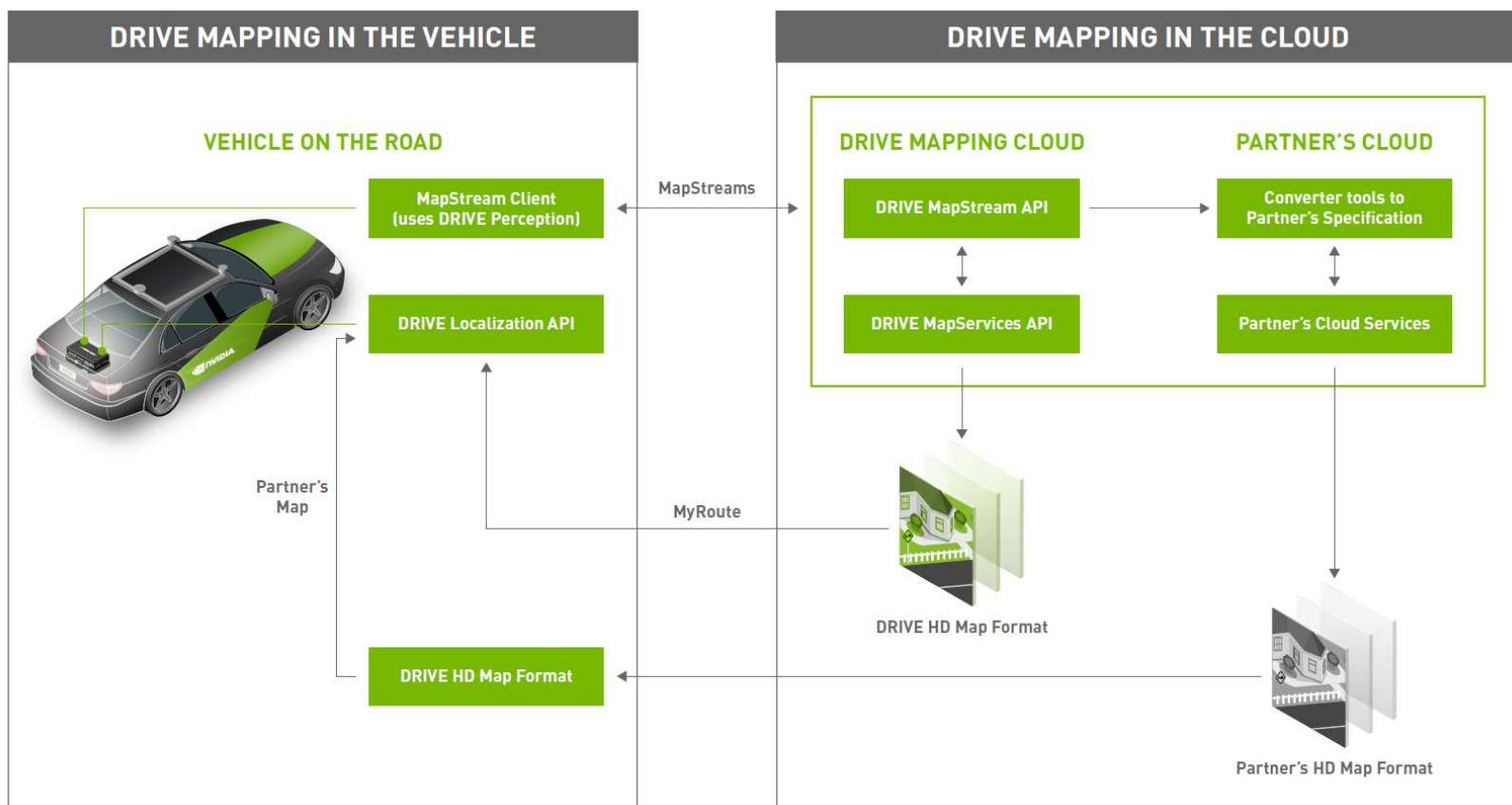
## Map Update

DRIVE MapStream  
in the cloud to enable  
partner's HD map update

## MyRoute

DRIVE MapServices in the  
cloud to build *MyRoute*  
where no map exists yet

# DRIVE MAPPING ARCHITECTURE





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