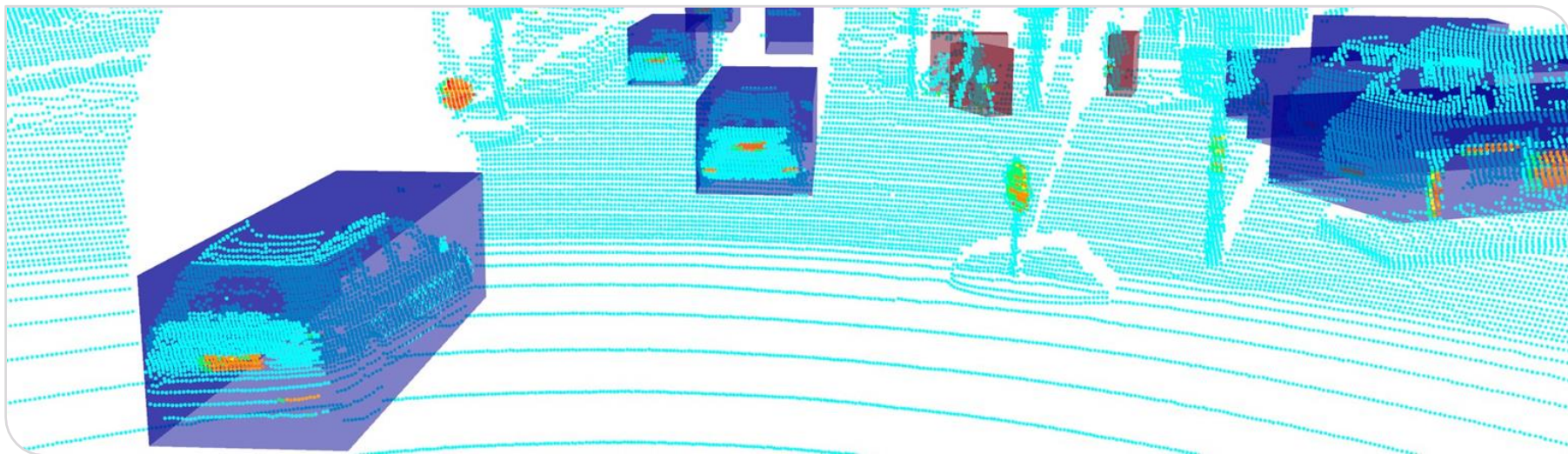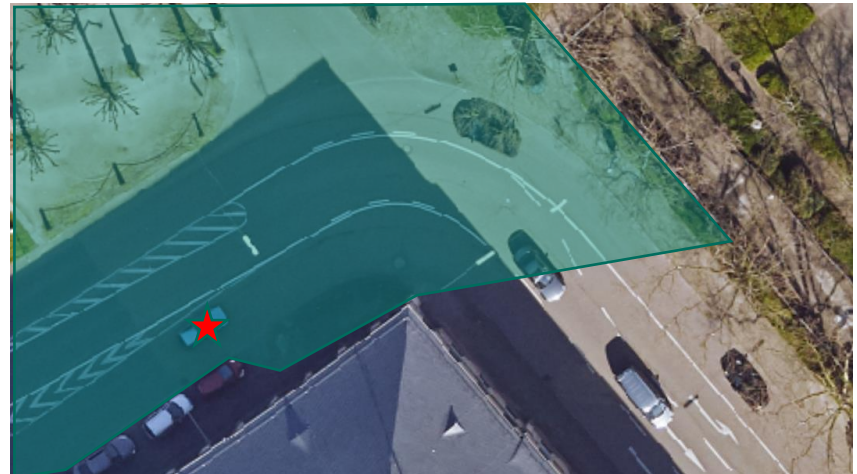# Benefits and Challenges of Next Generation Datasets

Dr. Carlos Fernandez (Karlsruhe Institute of Technology)

Introduction

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Introduction

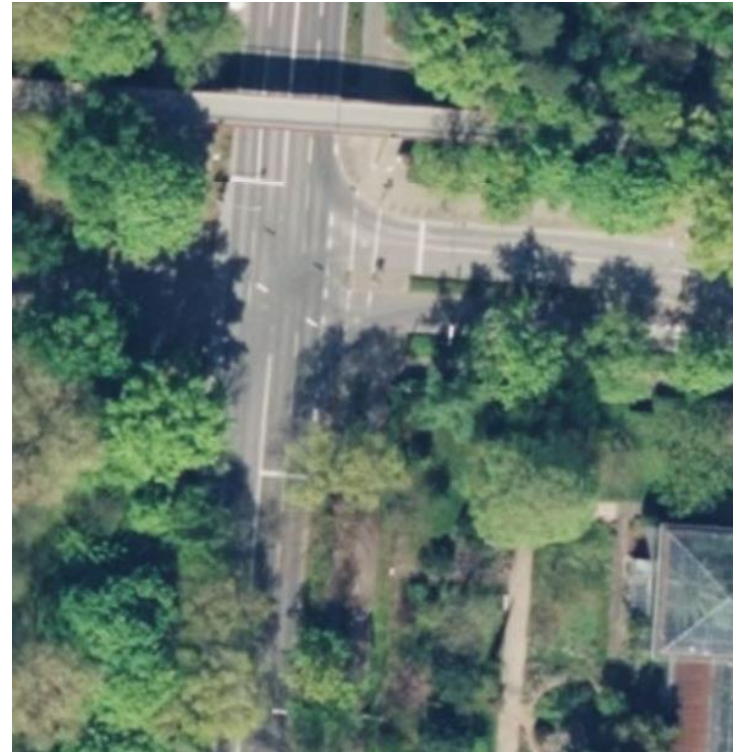11.07.2021   Dr. Carlos Fernandez – Benefits and Challenges of Next Generation Datasets

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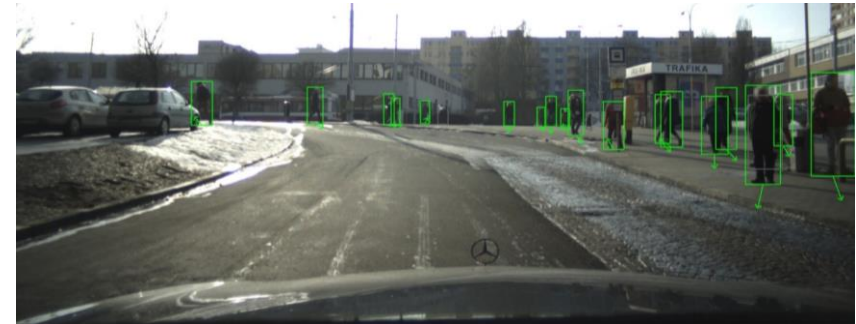Prof. Dr.-Ing. Christoph Stiller

Current State of Vehicle Datasets

Cityscapes

Euro City Person

Cityscapes 3D
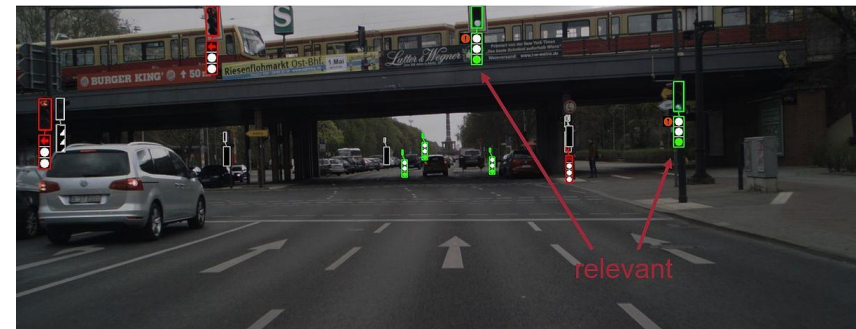
relevant

Drive U

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Current State of Drone Datasets

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Current State of Drone Datasets

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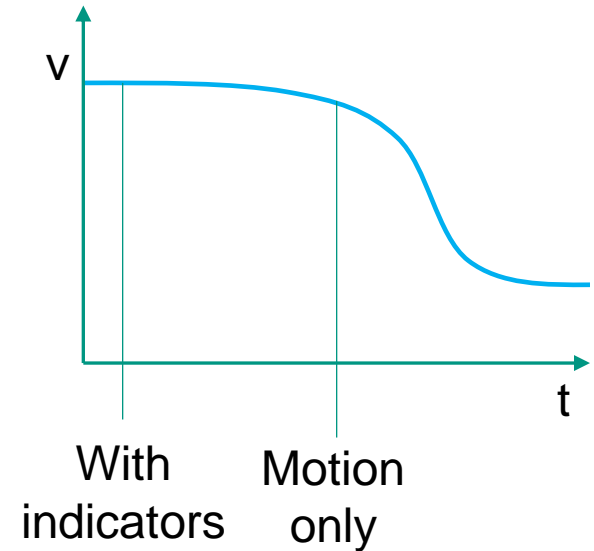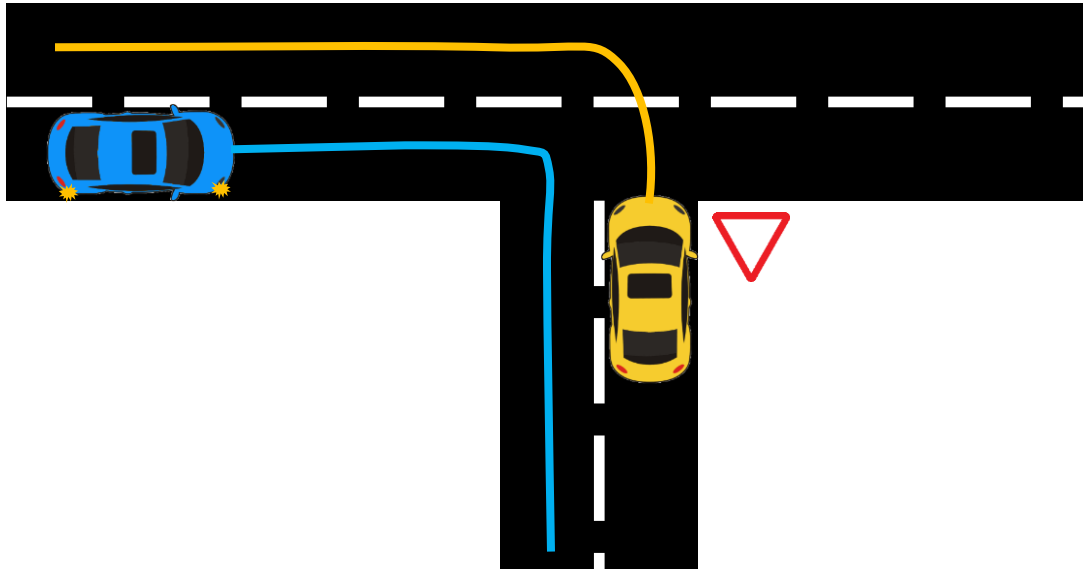
Benefits of Next Generation Datasets

- Object detection
- Tracking
- Trajectory filtering
- Speed estimation
- Orientation

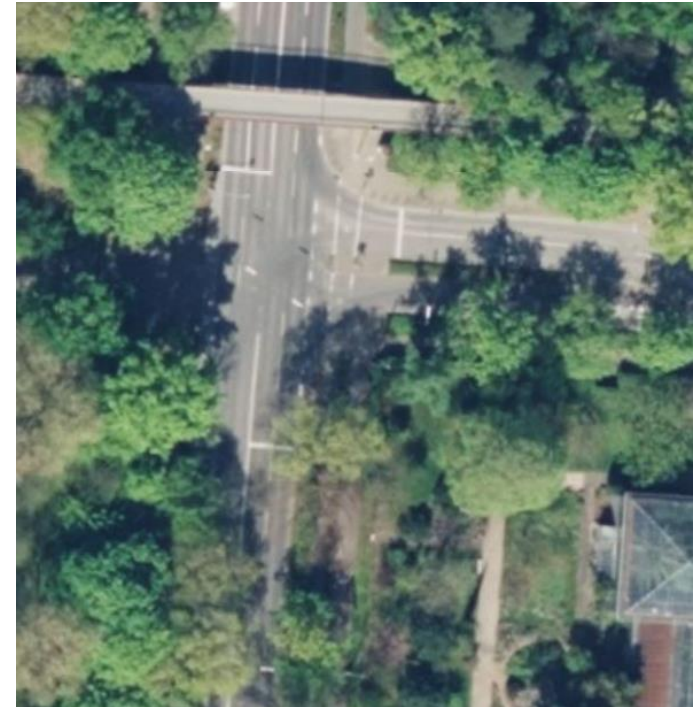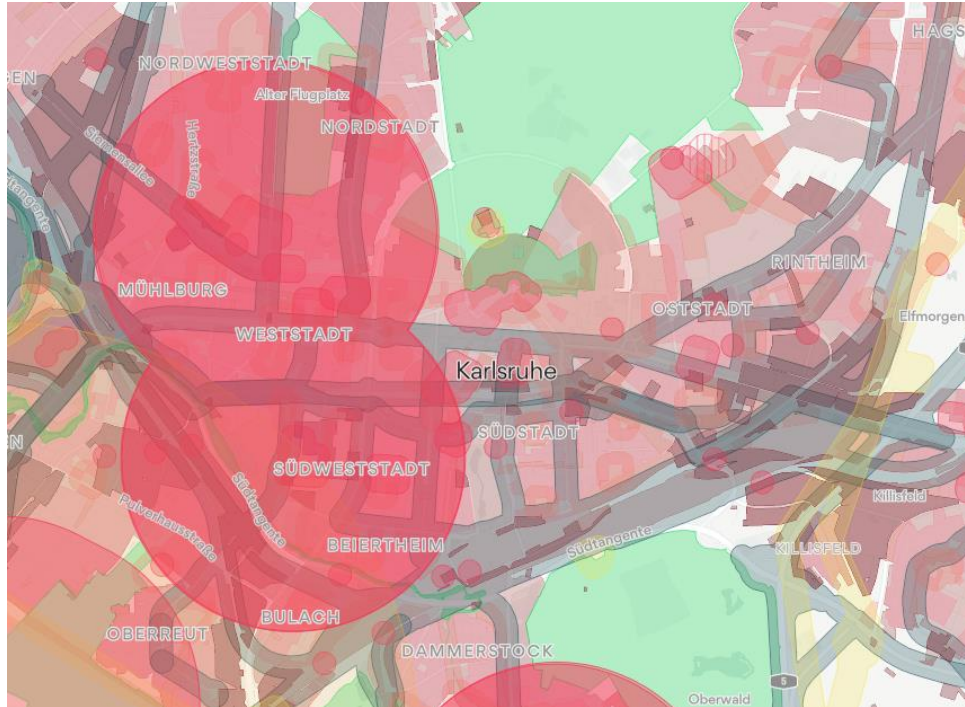11.07.2021   Dr. Carlos Fernandez – Benefits and Challenges of Next Generation Datasets

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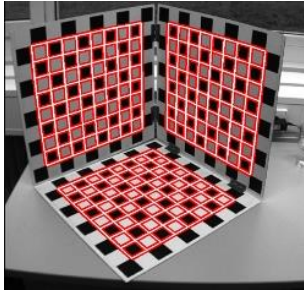Prof. Dr.-Ing. Christoph Stiller

Benefits of Next Generation Datasets

- Object height
- Traffic light state
- Car indicators
- Pedestrian head pose

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Challenges of Next Generation Datasets

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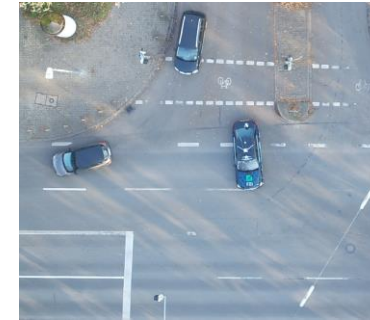Prof. Dr.-Ing. Christoph Stiller

Challenges of Next Generation Datasets

Camera Calibration

Vehicle-Drone Synchronization

Vehicle Localization

Drone Image Stabilization

Drone Image Georeference

Drone Grid Management

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Even Further Generation Datasets

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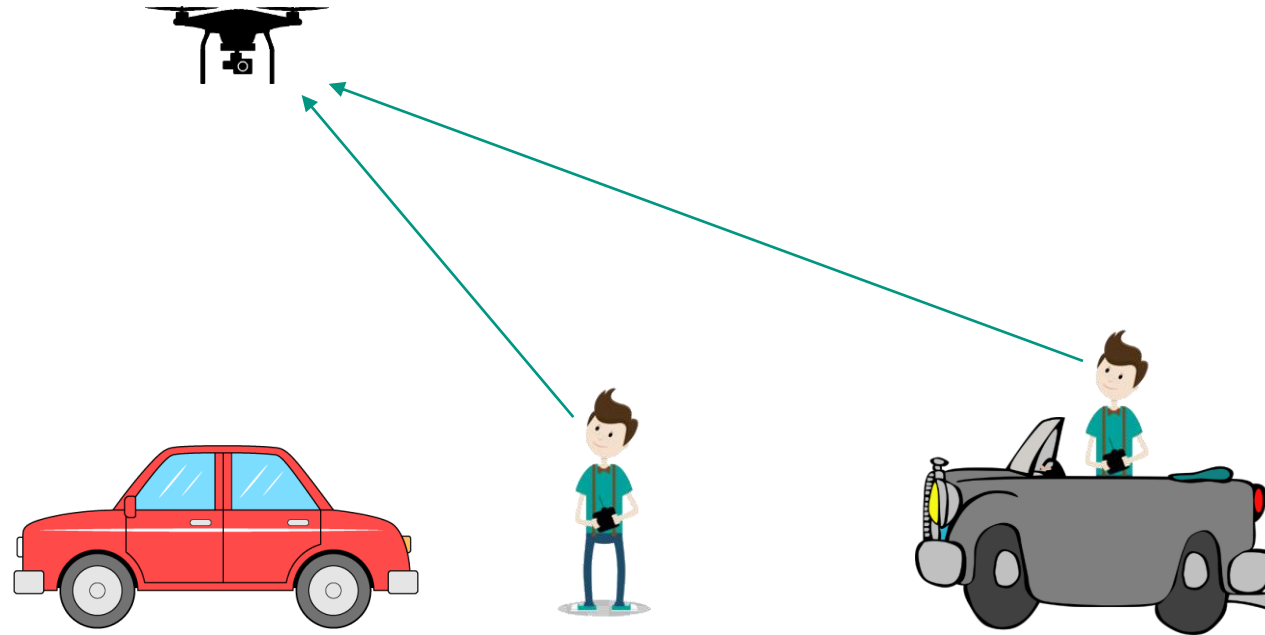
Conclusions

- Current datasets are focused on specific tasks (Perception & Behavior).

- It would be good to have more detailed labels in the future datasets.

- Decision making datasets are missing features that influence behavior.

- Both worlds can meet each other and boost autonomous driving in the future.

- Technical and administrative challenges need to be addressed.

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Thanks for your attention

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