



UDRIVE

European Naturalistic
Driving Study

UDrive

A glimpse into analyses

Jonas Bärngman

(incl. slides from Jordanka Kovaceva, Fabio Forcolin etc)

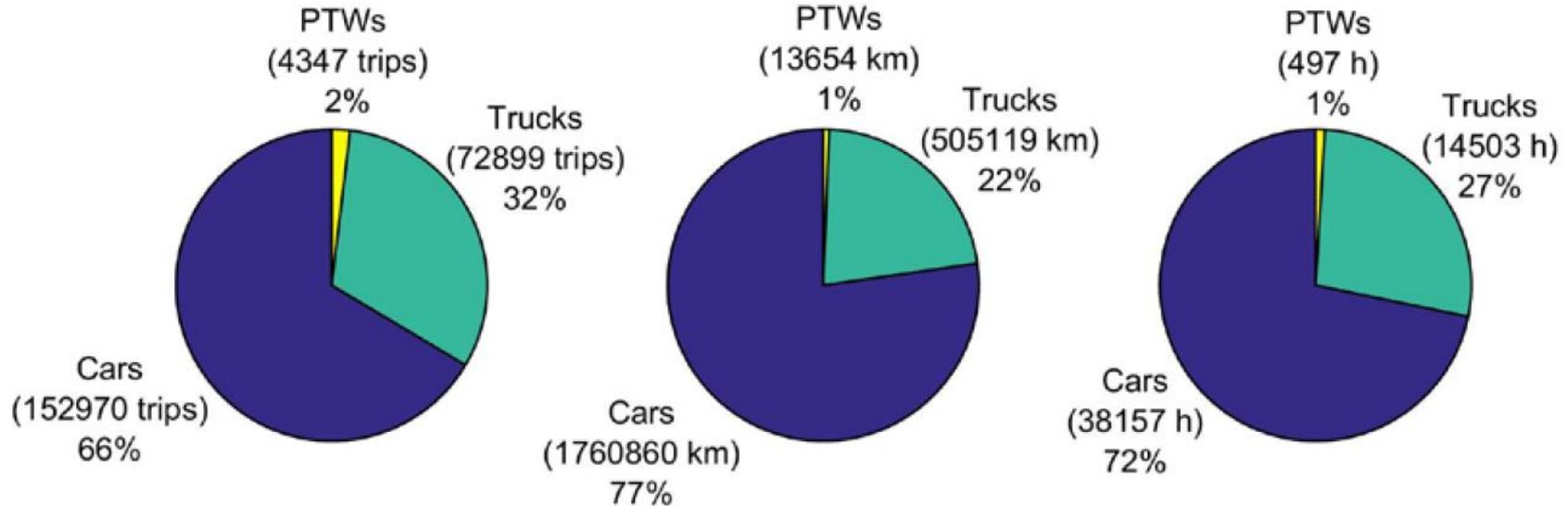
4/27/2018

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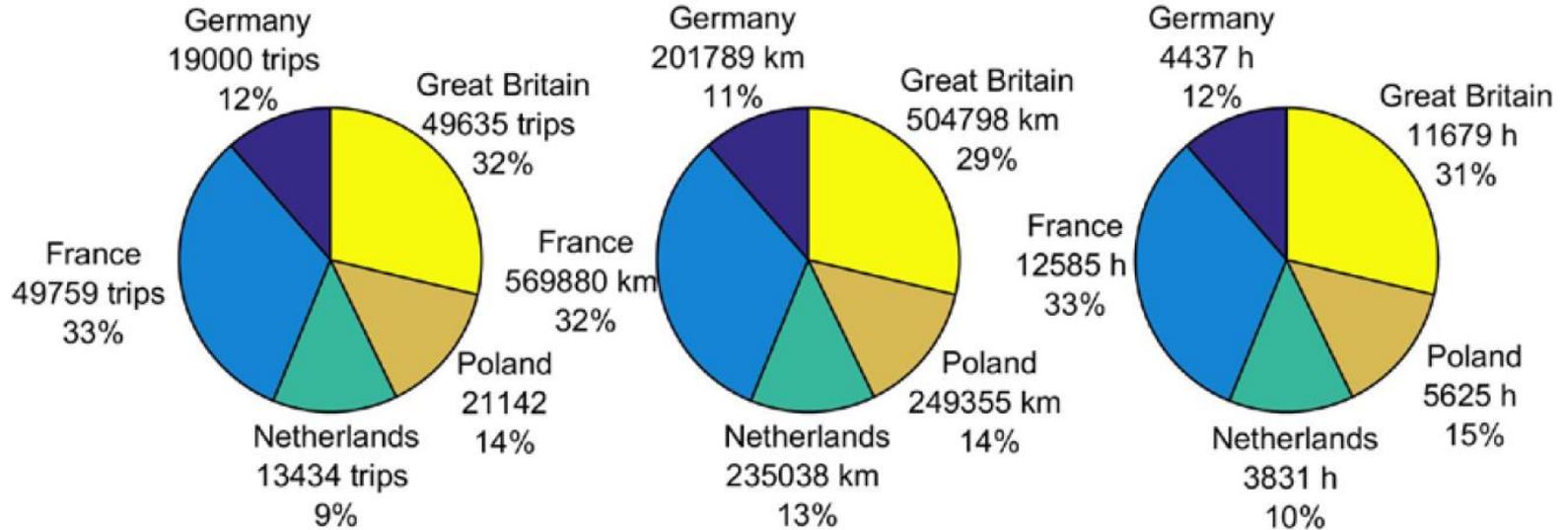
Agenda

- The UDrive "analyzable data"
- A few example analyzes
 - Truck driver secondary tasks
 - Car driver secondary tasks
 - Cars overtaking bikes
 - Truck glance analysis in intersection right turns
- Short summary

Analyzable data – vehicle type



Analyzable data (cars) – country





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Secondary task engagement for trucks

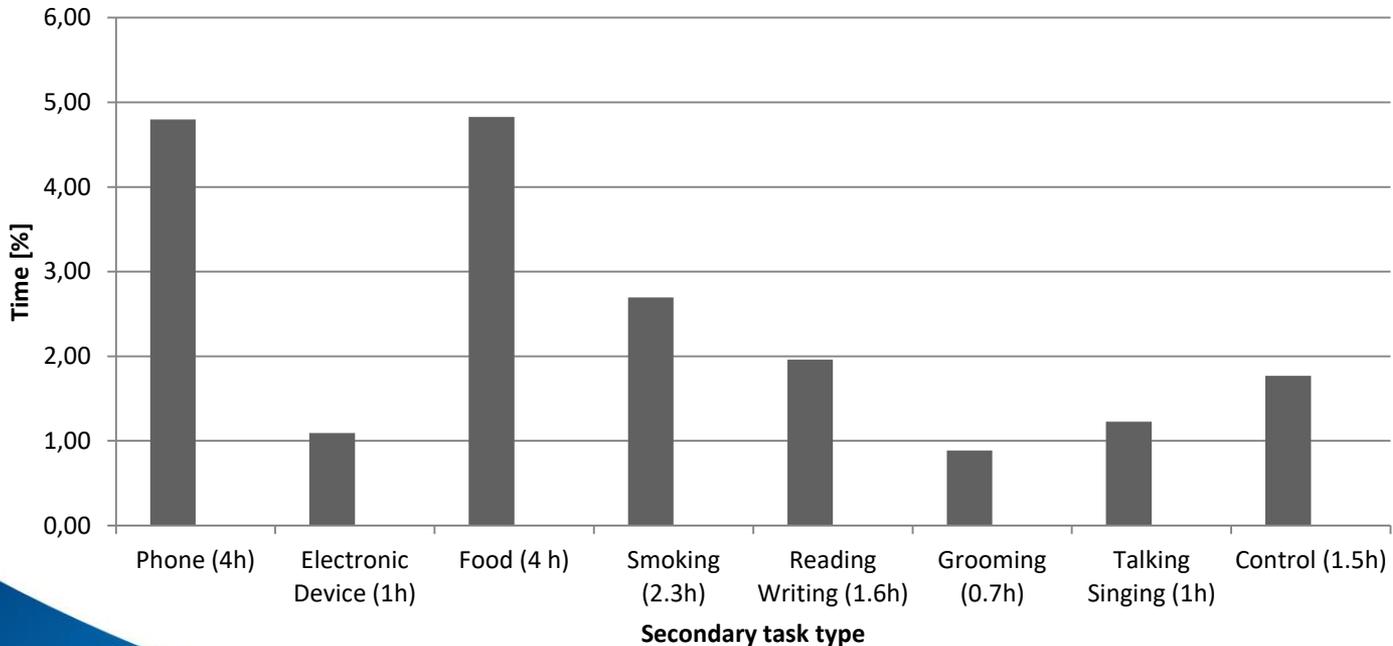
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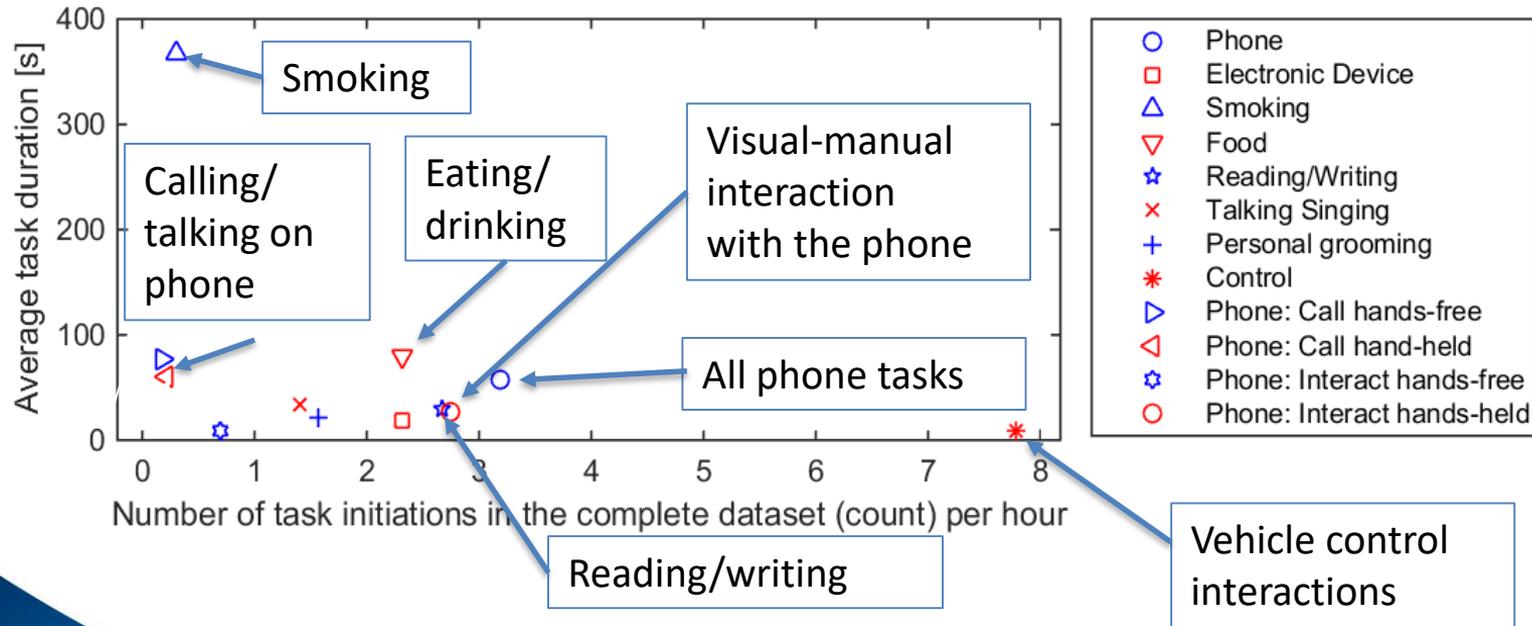
Truck driver secondary tasks

- 104 hours annotated
- Full trips
- 24 drivers
- Netherlands only

Truck driver secondary tasks – 20% of time



Duration vs. frequency





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Secondary task engagement for cars

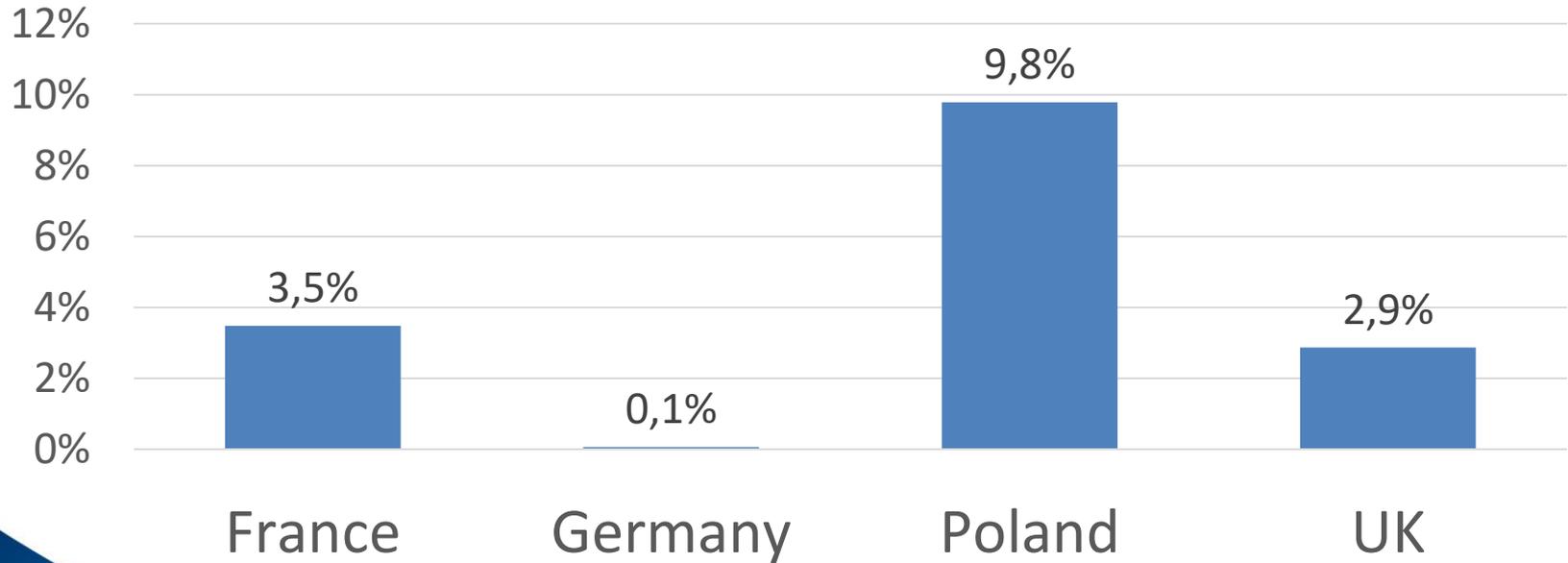
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Car driver secondary tasks

- 194 hours annotated
- Full trips
- 96 drivers
- France, Great Britain, Germany, and Poland

Car drivers' mobile phone use while driving





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Car drivers overtaking cyclists:

Jordanka Kovaceva¹

Jonas Bårgman¹, Gustav Nero¹, Fabio Forcolin², Reinier Jansen³, Marco Dozza¹
Chalmers University of Technology¹, Volvo GTT², SWOW³

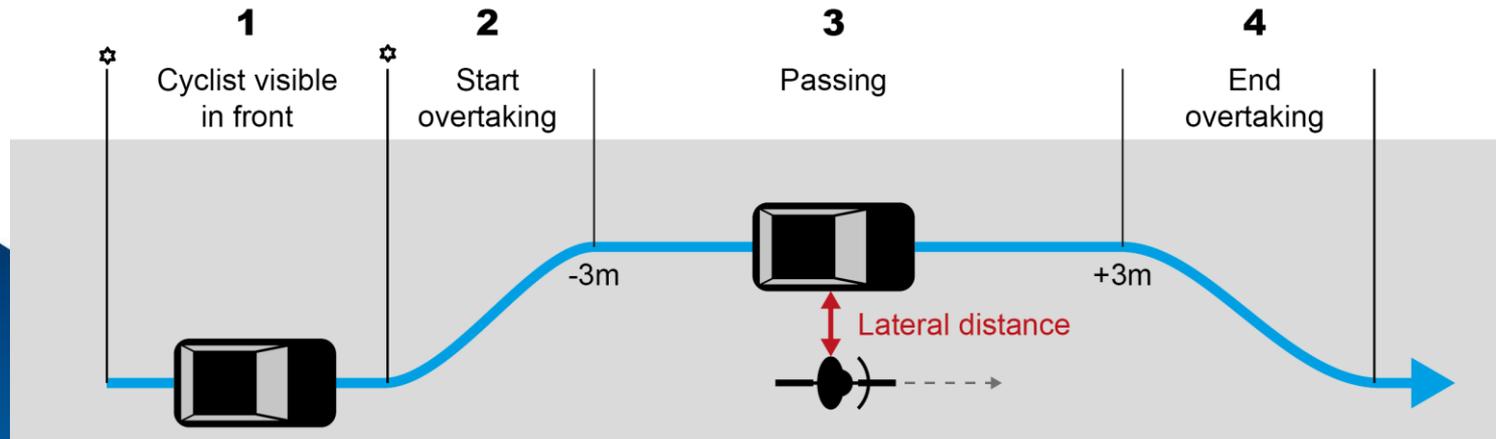


Data

- 147 overtaking segments
- 41 drivers (16 females and 25 males)
- Mostly in daylight - 138 of 147

Overtaking manoeuvre

- Bicyclist present in the driver's lane
- Rural straight roads
- Overtaking manoeuvre type
 - Flying and Accelerative





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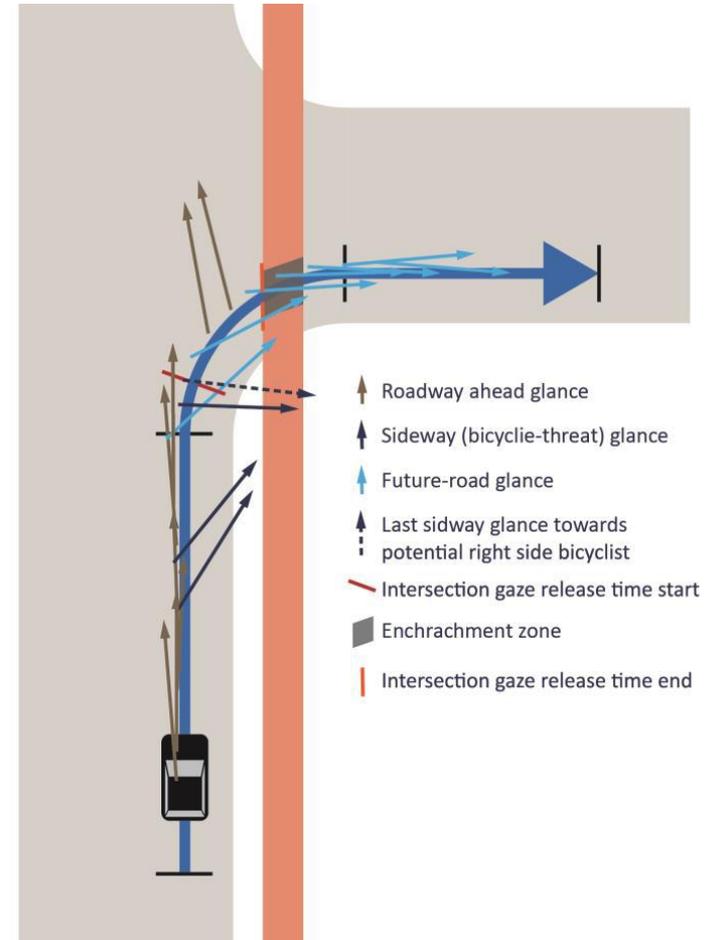
Truck drivers glance behavior:

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Glance behaviour timing

- Blind spot checks?
- When do drivers look at a bicycle threat the last time?



Overall summary

- UDrive data very rich
- Much analysis done, but only scratching analysis surface
- Quality checks/validation very important
- Data hosting a challenge