



Rijkswaterstaat
*Ministry of Infrastructure and the
Environment*

Impact of automated driving on infrastructure & traffic

SIP-adus workshop, Tokyo
27 October 2015

Tom Alkim
senior advisor
C-ITS & Automated Driving

Rijkswaterstaat



Our ambition





Working group “the Self Driving Car”

- Ministry of Infrastructure & the Environment
 - Rijkswaterstaat, national road operator
 - RDW, type approval authority
1. Adjustment of (inter)national law
 2. Facilitate large-scale practical tests
 3. International efforts to make deployment a reality
 4. Stimulating and developing knowledge



Exemption procedure



Intake



Desk
research



Testing on a
closed proving
ground



**Admittance
based on an
exemption**

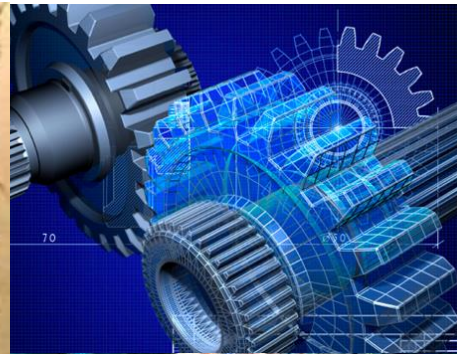


Evaluation



Knowledge agenda

- Legal
- Technical
- Human Factors
- Impact
- Deployment





Infrastructure requirements - Physical

- Roads and road markings
- Signs and traffic management systems

Depending on scenarios, levels of automation and design choices:

- Separate lanes, (parking)areas
- Supporting systems (signage, markings, traffic lights, barriers, magnetic markers, etc.)
- Different construction requirements (different wear and tear)
- Roundabouts vs intersections



Infrastructure requirements – Digital elements

- Static (databases and digital maps)
- Dynamic (requires communication)

How to integrate real time, accurate dynamic information?

- Work zones / lane closures
- Variable speed limits and other TM measures

Requires stakeholders to agree on processes and formats



Impact on traffic / human factors

- Truck Platoons in mixed traffic
 - Effect on merging behavior
 - Difference in overtaking behavior
- Transition of control
 - Literature study (available end of this month)
 - Simulator study by TNO (available end of this year)
 - Video experiment by SWOV (available end of this year)
- How safe is level 3?



EU Truck Platooning Challenge

A fresh perspective on mobility and logistics

European Truck Platooning Challenge 2016



www.eutruckplatooning.com <https://www.youtube.com/watch?v=WLVoc1d-Kks>



Thank you for your attention



tom.alkim@rws.nl