



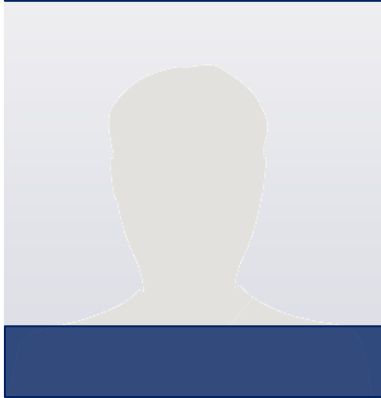
Belgian Road Research Centre
Your partner for sustainable roads

POLIS
CITIES AND REGIONS FOR TRANSPORT INNOVATION

2019 Annual POLIS Conference

Kris

Redant



Road infrastructure challenges for
automated vehicles

- BRRC: origin & mission
- Infrastructure for automated vehicles
- Method
- Content



Belgian Road Research Centre

- Founded in 1952
- Aid to contractors to accelerate reconstruction of Belgium after WWII
- Expertise
- Stakeholders
- Tasks



Repro Liberaal Archief



Infrastructure for automated vehicles





RAPPORT
Zelfrijdende auto's
Valkenningsplan ingediend op 14/11/2014

State of
Au

CDR Transnational Road Research Programme
Call 2014: Mobility and ITS

Funded by Finland, Germany, Norway,
the Netherlands, Sweden, United Kingdom
and Austria

**DRAGON: Driving automated vehicle
growth on national roads**

WP 4: Findings Report

Deliverable No 4.1
August 2017

Research report summarising the
conclusions and knowledge from reports

TRL, UK

TNO, Netherlands

ika, Germany

Prepared by:
Dr. Ir. Hanses Farah
Transport & Planning, Delta Unit

20th December 2016

72 YEARS
2017 2018 2019
EXECUTIVE SUMMARY

... Amara's law



Infrastructure for Automated Vehicles

- Introduction/context
- Highways
- Urban environment
- Other roads & special applications (*future work*)
- Automated road works (*future work*)



Highways

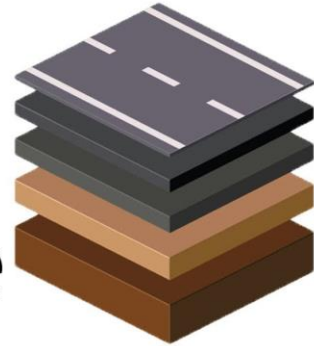
- Design concepts & guidelines focus on human drivers
- Communication technology & digital infrastructure
- Road markings (retroreflection, width, contrast, harmonization)



Highways

- Structural design
- Road surface quality
- Insertion and exit lanes

Components Of Road Structure



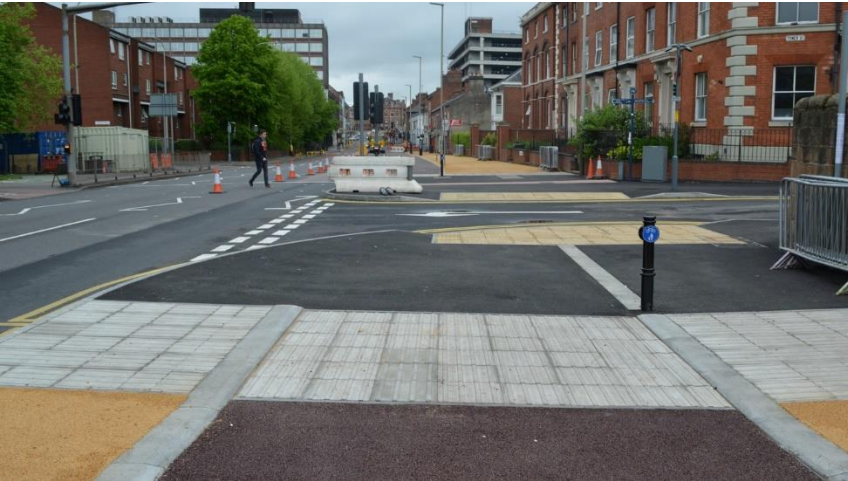
Urban environment

- Micromobility
- Shared mobility
- Speed limits
- Communication technology & digital infrastructure



Urban environment

- Slow mobility & accessibility
- Public transport / shuttles

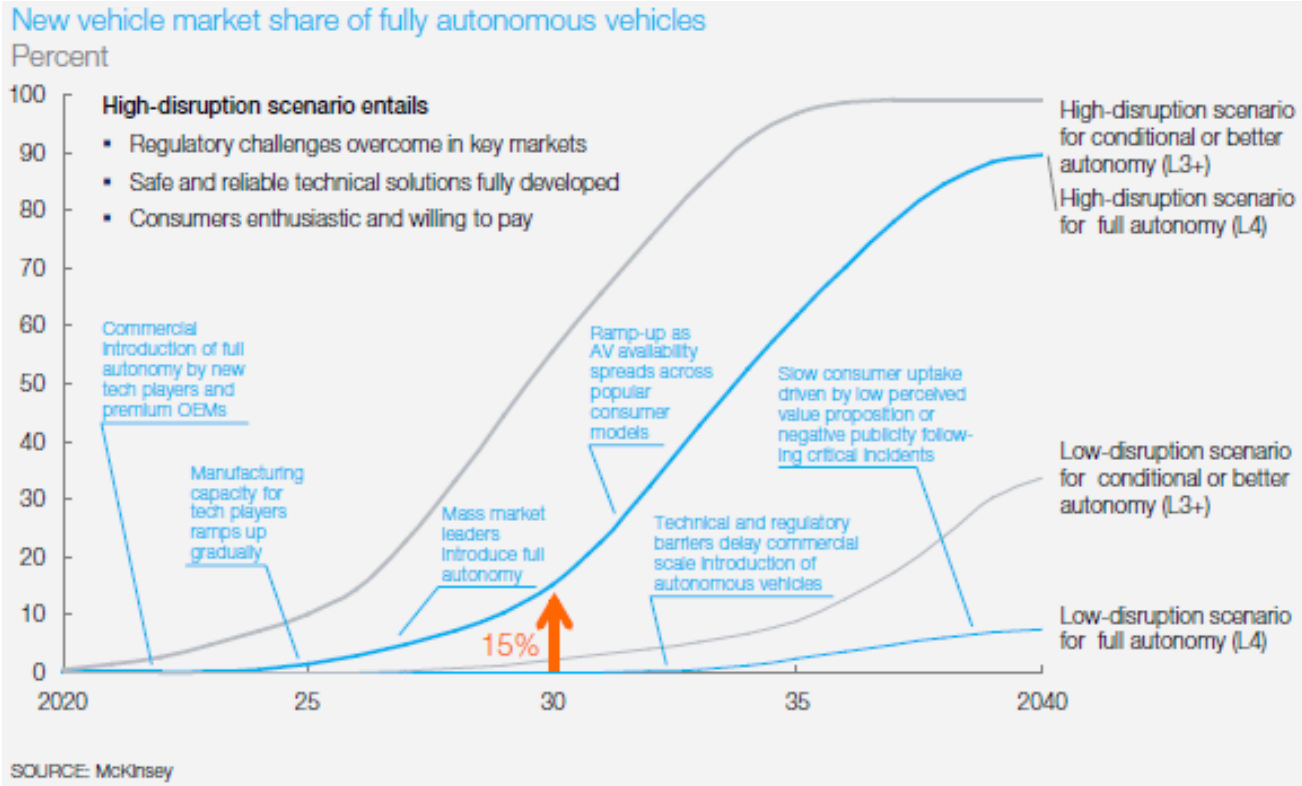


(*)VUB, VIAS and other organizations are running tests with autonomous shuttles

Future

- Other roads and special applications
- Automated road works





Coexistence of different levels of autonomy / driving assistance



Highways - No Regret

- Communication / digital infrastructure
- Flexibility
- Legibility of traffic signs & road markings
- Road surface quality



Urban area - No Regret

- Different evolutions
- Choices needed
- Infra:
 - digital infrastructure & communication
 - legibility of traffic signs & markings
 - pedestrian (or cyclists) surface quality
 - pick-up / drop-off areas





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Thank you

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