



## *Admission procedures for testing on public roads in the Netherlands*

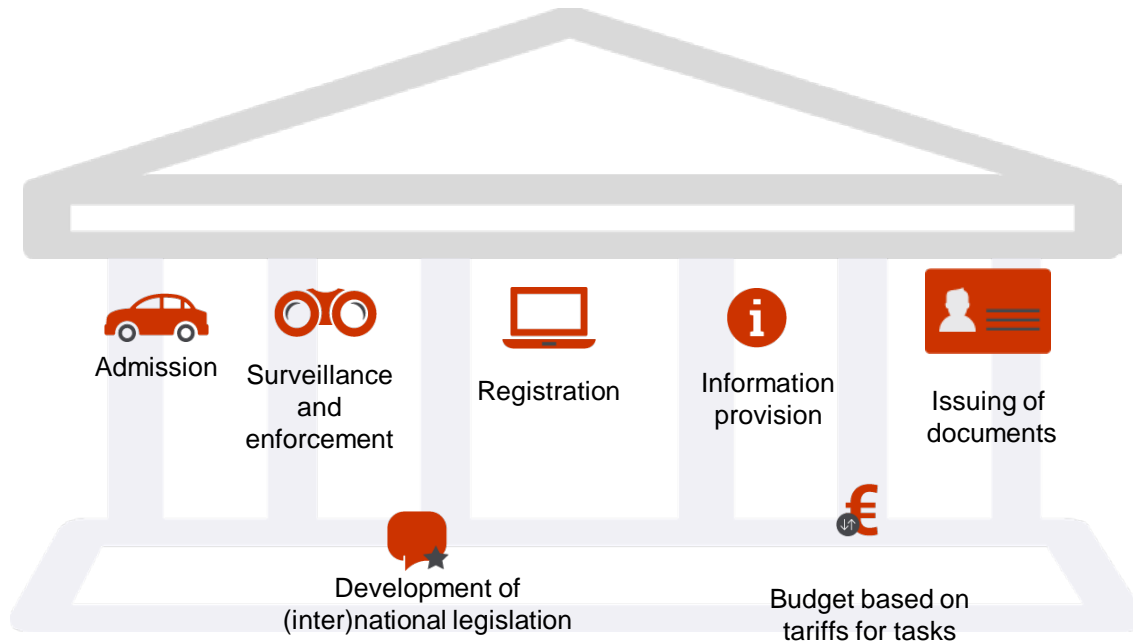
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**RDW**







- brief introduction of the organization
- conditions under which we provide such exemptions
- I'll talk about the process itself
- short overview about what we learned and what are the challenges for us and the applicants

# RDW: safety, sustainability and legal certainty in mobility

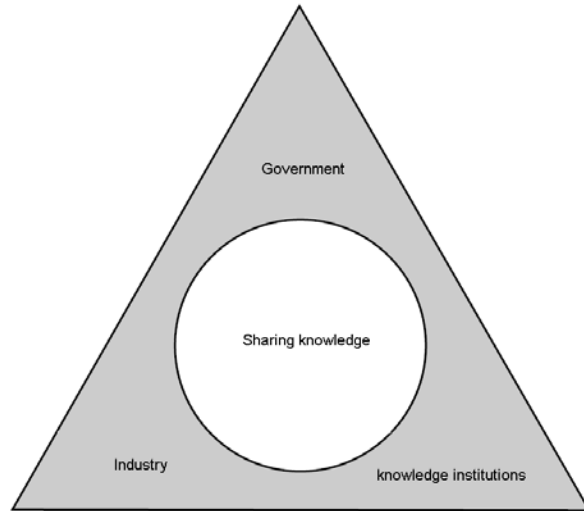


	Vehicle Chain		RDW tasks in Vehicle Chain	
Market	Development		<u>Experimental exemptions</u> <u>Testing/Certification</u> Surveillance TS <u>TA registration</u>	RDW
	Production		Surveillance manufacturer	
	Market/ sales		Car license Registration owner Registration vehicle data (static) Individual approval Surveillance importer/dealer	
	Use		Registration owner Registration dynamic vehicle data Driver licence Special Permit / exceptional transport (surveillance) PTI <u>Surveillance dataprovider</u> Recall	
	End of live		Deregistration surveillance	


 Development of (*vehicle*) directives & regulations
 


 Information exchange
 

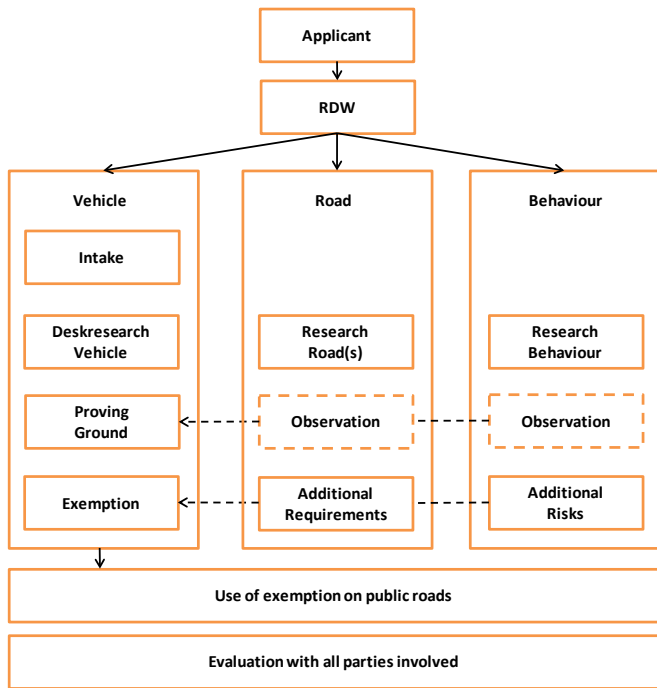
# exemption of self-driving vehicles in the Netherlands.



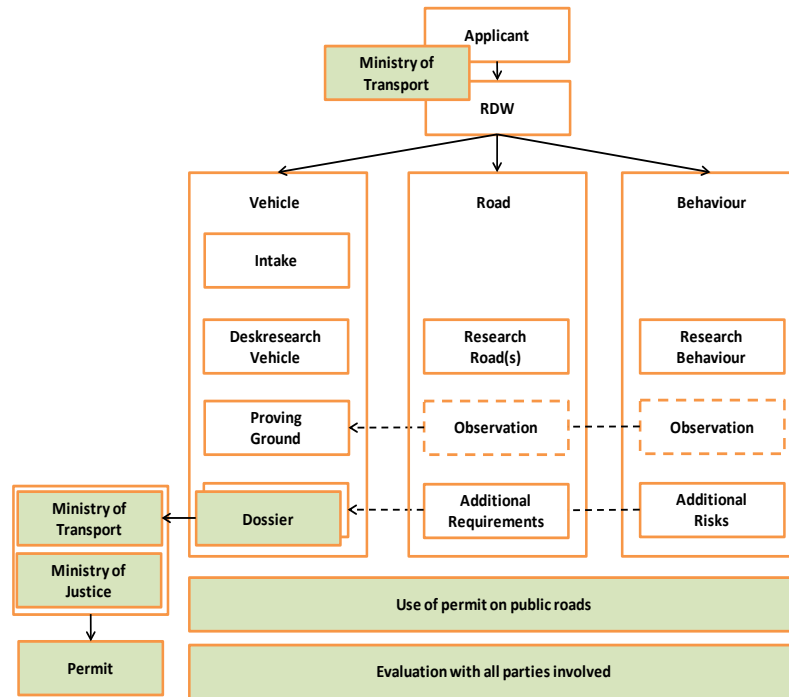
Field Operational Tests (FOT's) should be about:

- traffic flow
- traffic safety
- quality of life

## Process of exemption selfdriving with driver in the vehicle



## Exerimental law Process of permit selfdriving without driver in the vehicle



# Process of exemption Selfdriving vehicles

- Intake
  - With participant and RDW
- Start up meeting
  - with all parties; everybody the same information
  - OEM/manufacturer, road authority, SWOV, insurance, RDW, legal
  - formulating knowledge questions
- Testing vehicle by RDW, decision road authority, advise SWOV (institute for road safety research)
- Decision exemption/permit
- Monitoring exemption or permit
- Evaluation
  - Answering knowledge questions

# Riskassessment selfdriving vehicles Goal: towards real admission

1. human driver is an active part of the safety case (in the vehicle). And the legal driver. Goal: large-scale field operational testing
  - ISO 26262 & SOTIF
2. human driver is indirectly part of the safety case (remote). Still the legal driver. Test with a remote driver
  - ISO & SOTIF + RDW Vehicle Safety & Security Framework: robustness software
3. human driver is not part of the safety case.
  - National research.- RDW Vehicle Driving License Framework



# Summarize application for exemption or permit

1. The sharing of knowledge
2. The result must be a better situation
3. It must take the human factor into account
4. You need a high level of safety
5. High standard, high quality and the opportunity to learn for all participants in the process

# Some highlights based on 88 exemptions

- EMC awareness
- quality riskanalyze
- safe transition of control – time to react by human in case of failure is longer then we think
- taking normal regulating / homologation into account – exemption only if necessary

# Some highlights based on 88 exemptions- develop legislation

1. taking self driving systems into account for Electromagnetic compatibility
2. safety for passengers on buses without drivers requires other regulations to recognise a dangerous situation at an early stage and for time to leave a vehicle safely.
3. failssafe steeringssystem is necessary for high automated steeringssystem
4. combination of redundant systems asks for combination of regulations ( braking/steering)
5. aging of software and hardware.
6. communication between vehicles and other road users
7. bidirectional vehicles affect the regulation on light, brake and tires
8. data



Thank you for your kind attention.

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