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CONGRESS
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5-8 JUNE 2019

Safe implementation of modern technologies into road traffic: KFV's Code of Conduct

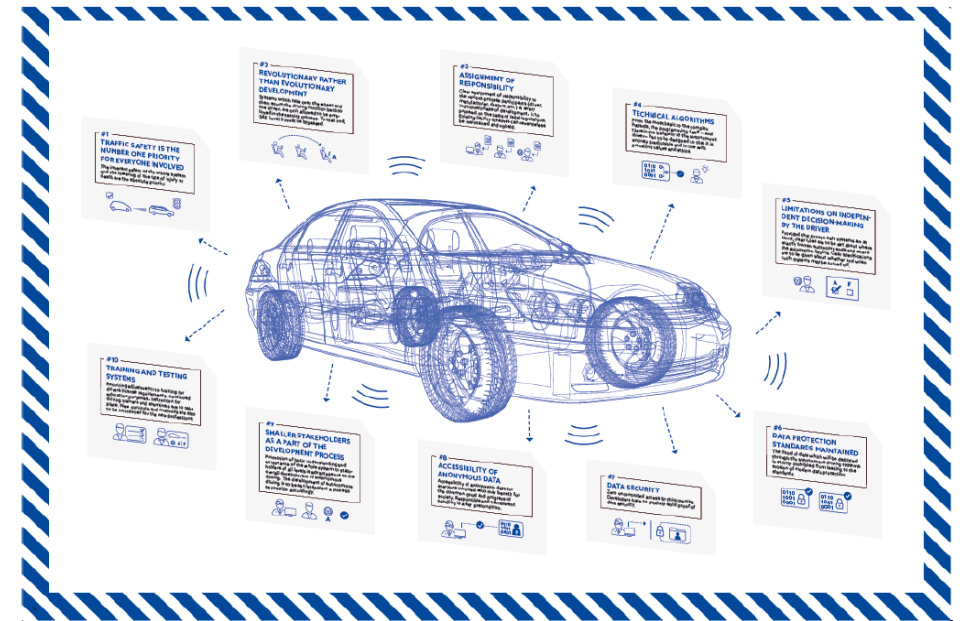
Autonomous driving – a look ahead

Autonomous driving is developing very quickly!

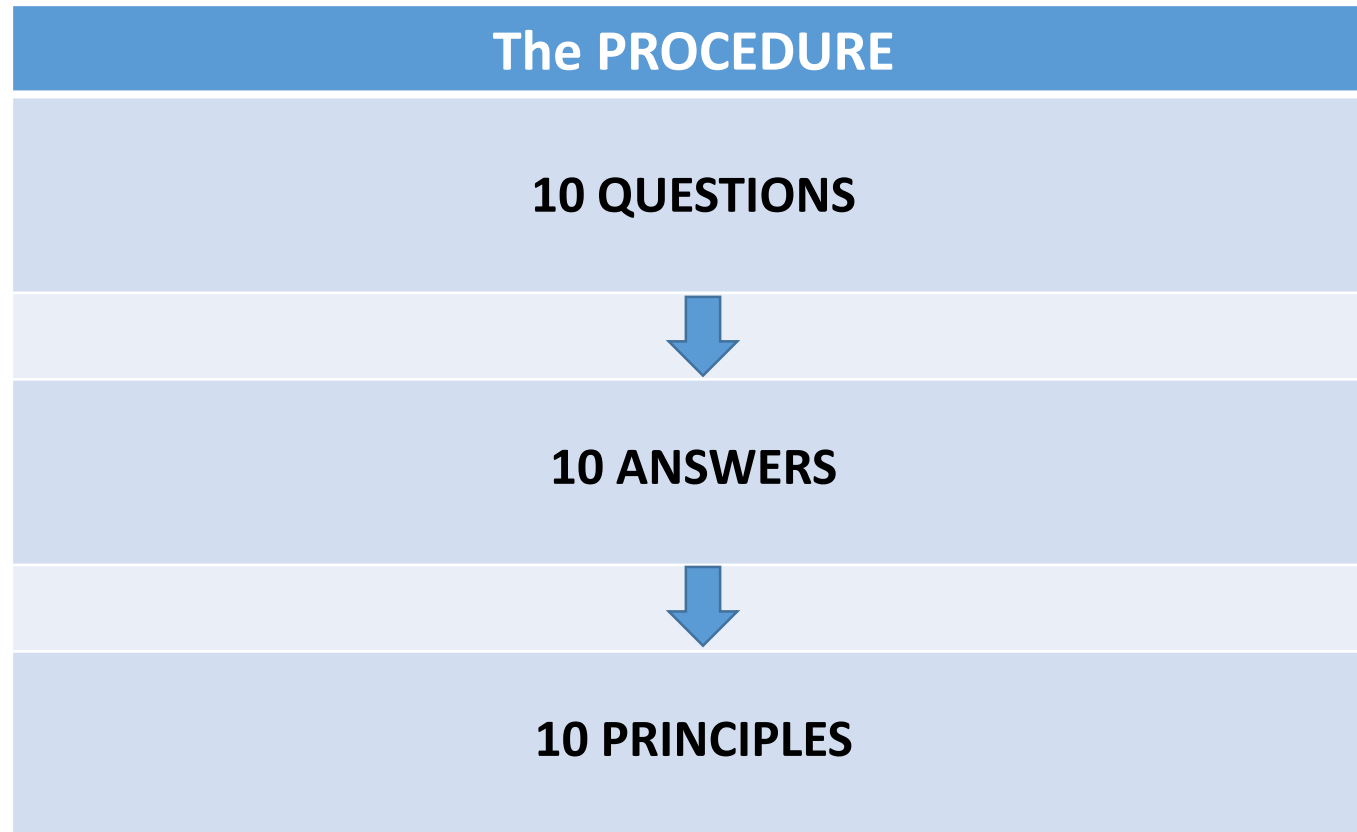
- KfV is concerned with the the changes in road safety

Professions have to keep up with the times!

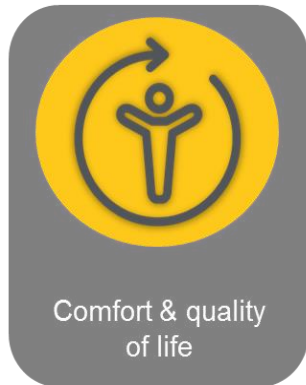
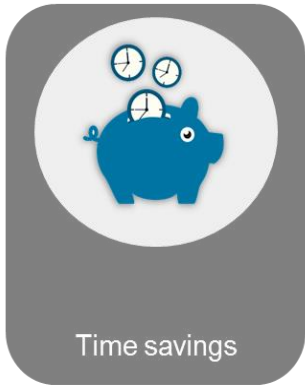
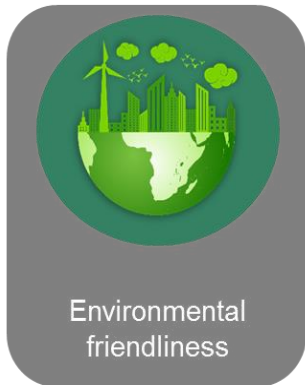
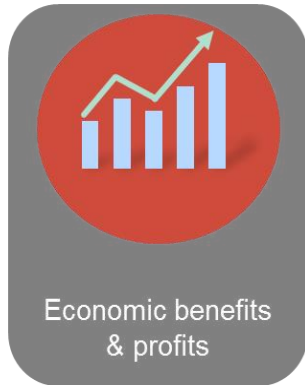
- Changes in professions (e.g. regarding driver education)



KFV's Code of Conduct

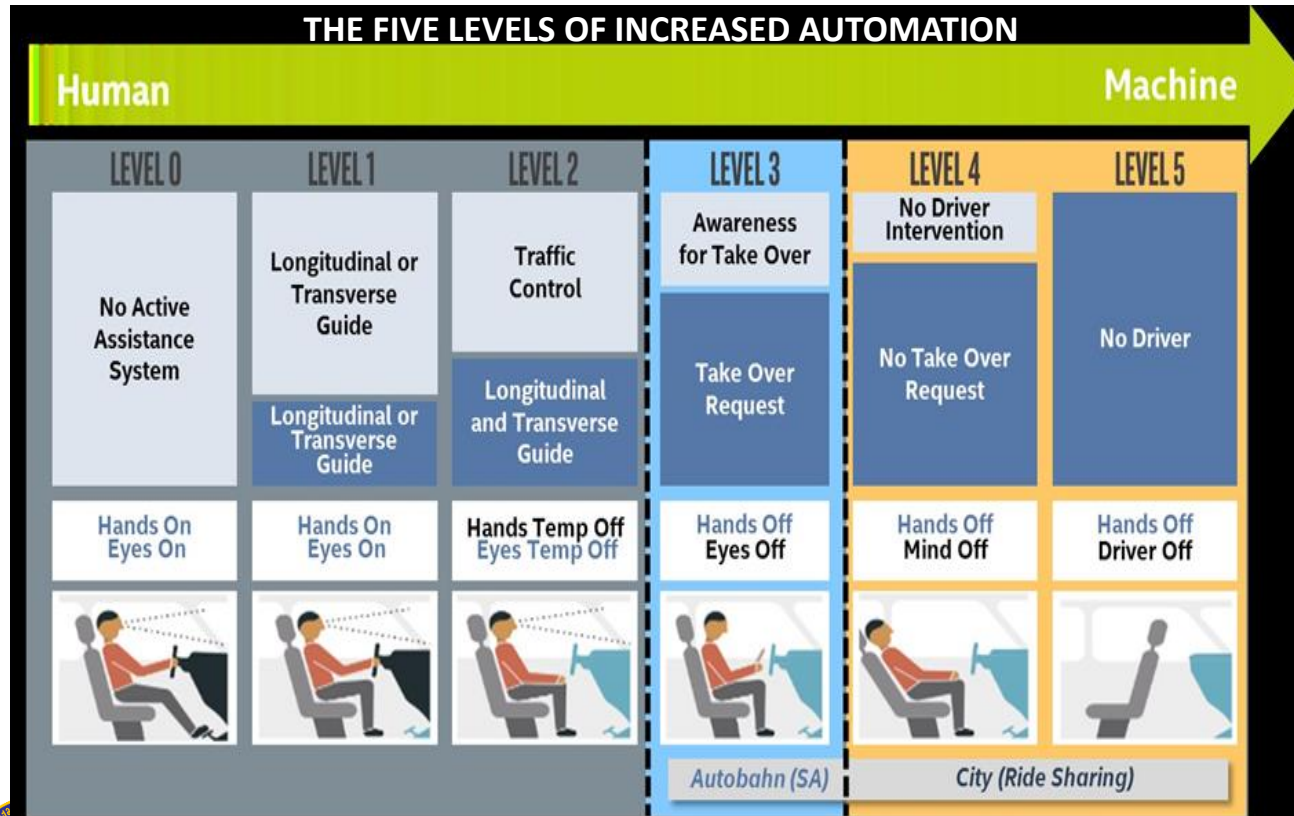


1. What are the expectations on the CAD?



The answer:
**Traffic safety is the
number one
priority for
everyone
involved!**

2. Isn't it dangerous?



The answer:

Revolutionary rather than evolutionary development of autonomous driving gives us the necessary testing time for the systems – therefore SAE Level 3 must be skipped!

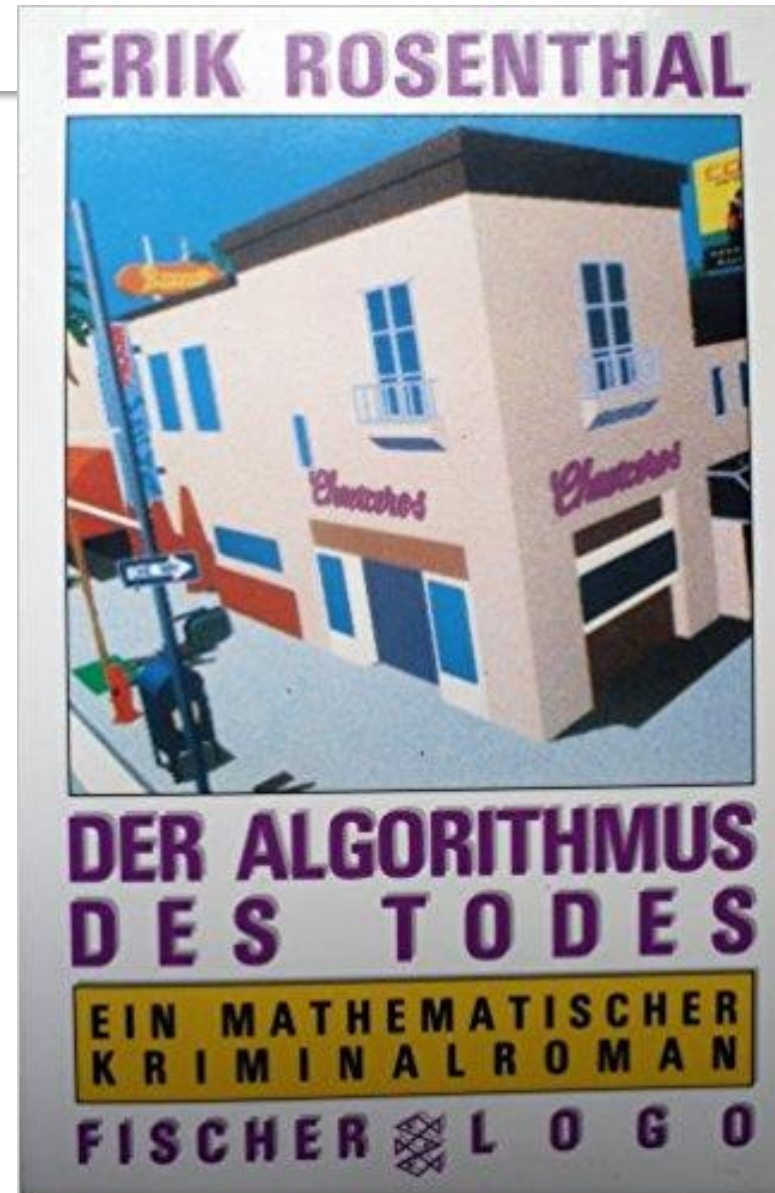
3. Who is actually responsible?



The answer:
The responsibility during automated driving must be dedicated!

4. How does the machine decide in extreme situations?

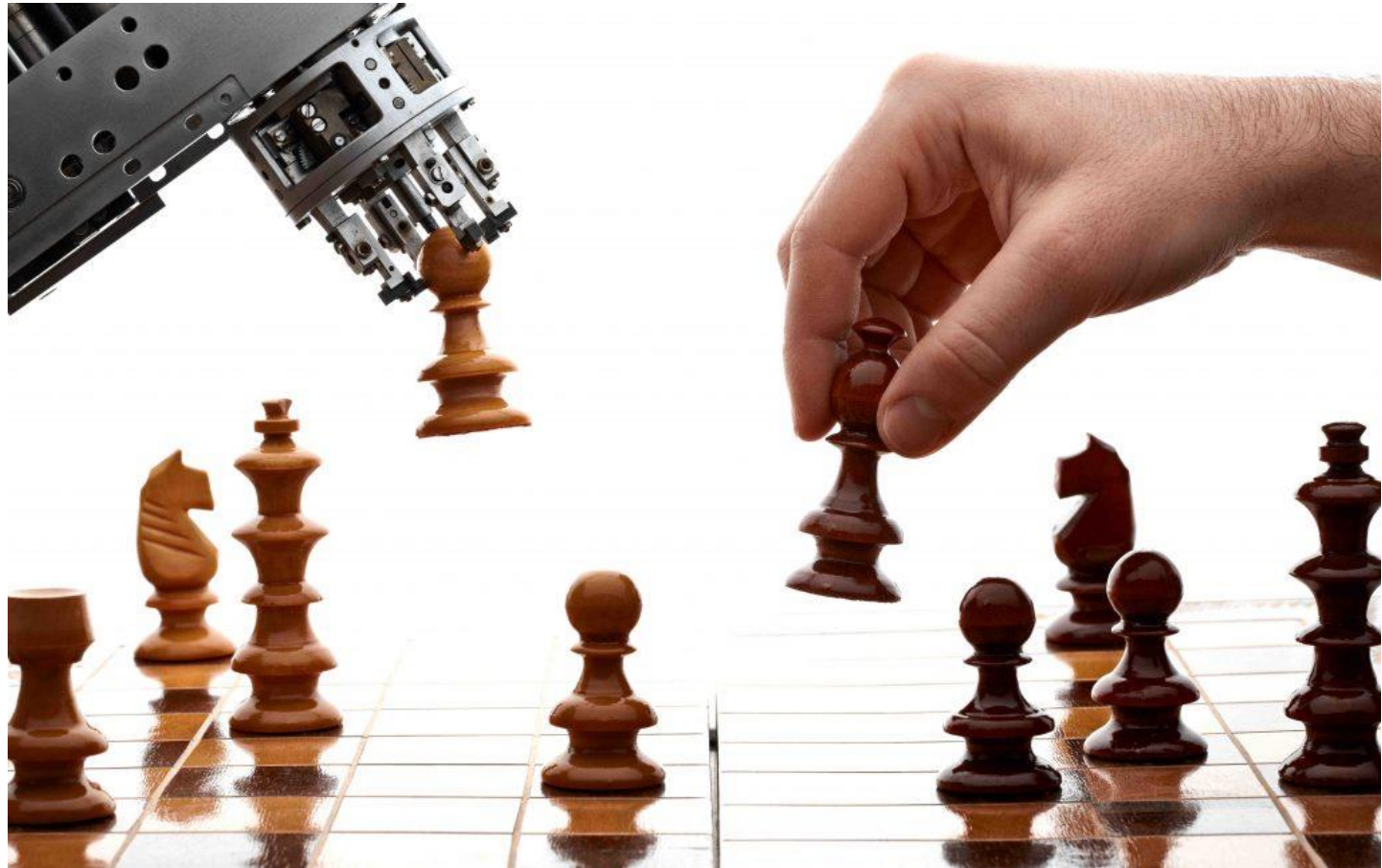
The answer:
**Technical
algorithms must
be predictable
and must be in
line with our
values!**



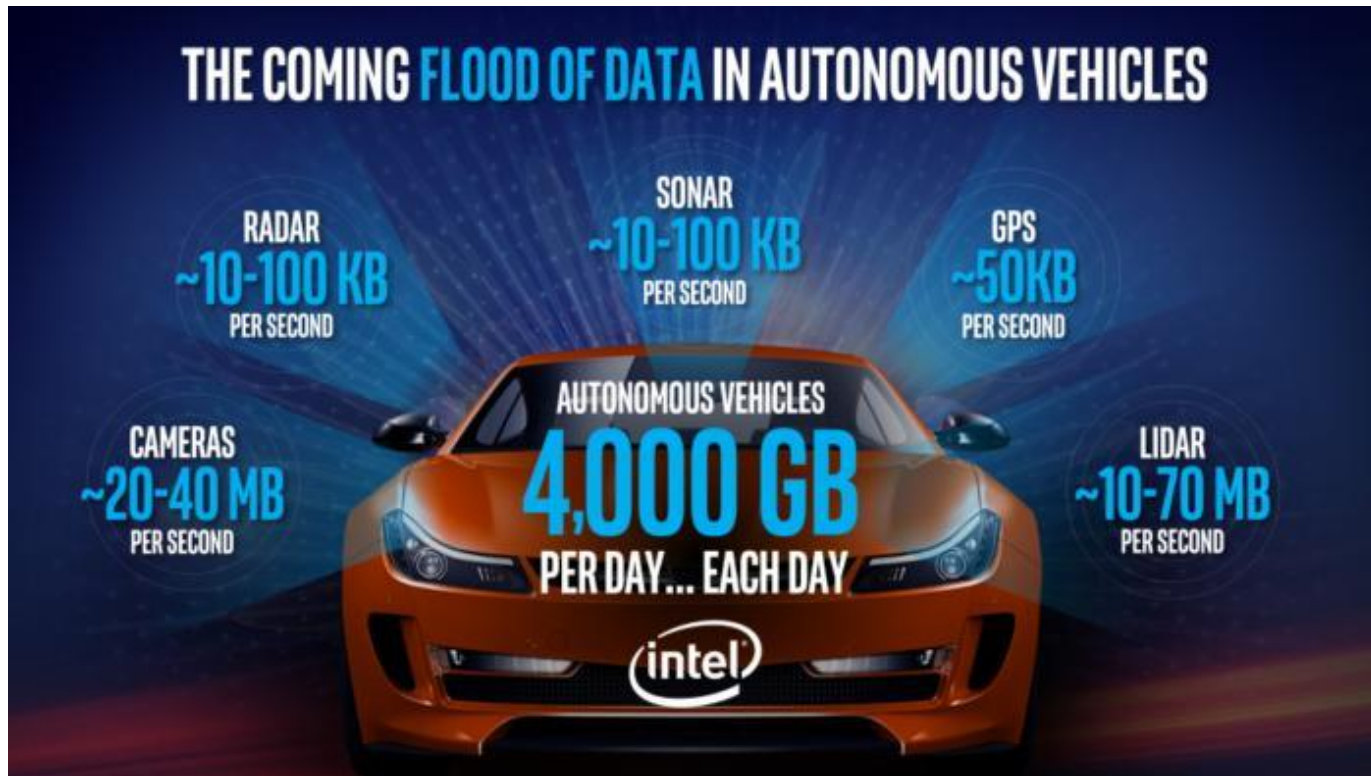
5. Who is better, the human or the machine – and where is the driving pleasure?

The answer:

It must be determined when human decision-making ends and when safe automation becomes a priority!

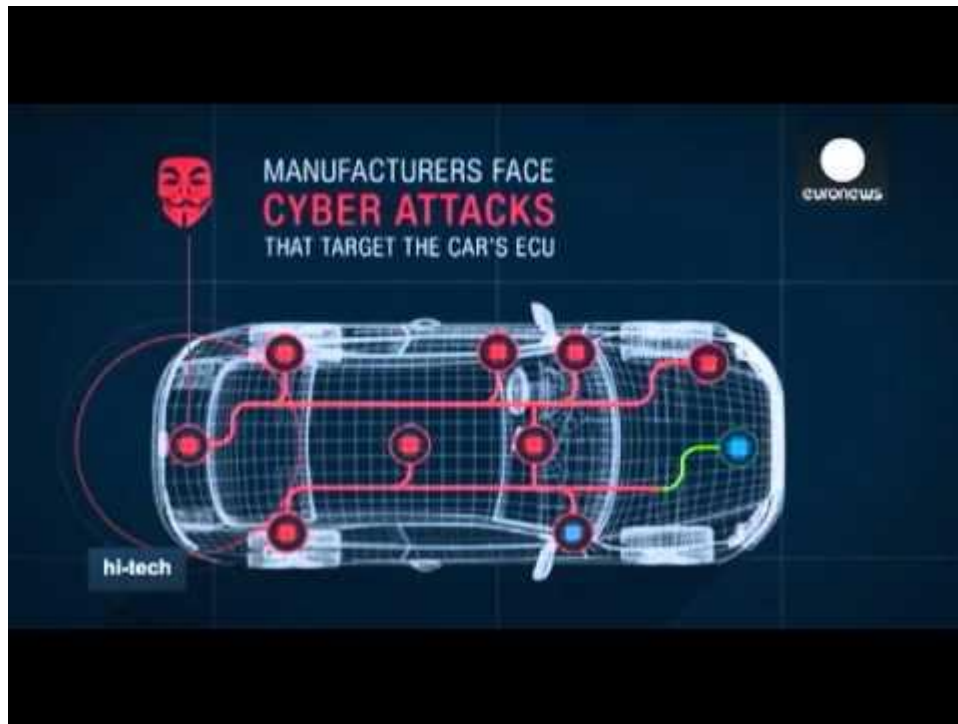


6. Are we totally supervised?



The answer:
**Existing data
privacy
standards
must remain
unchanged!**

7. Is the autonomous passenger safe from cyber attacks?



The answer:
**Data security is the
prerequisite for
market entry of
any systems and
components!**

8. What should we do with the information overload?

Autonomous car data vs. human data

In 2020, the average autonomous car may process 4,000 gigabytes of data per day, while the average internet user will process 1.5 gigabytes. That means...



1 autonomous car = 2,666 internet users

The answer:

**Anonymous data
should be made
available to
anyone who can
ensure the most
social benefit!**

Source: Intel

Mashable

9. Do people want autonomous vehicles?



The answer:

The revolutionary changes of motorised mobility can only be successfully overcome together with the users!

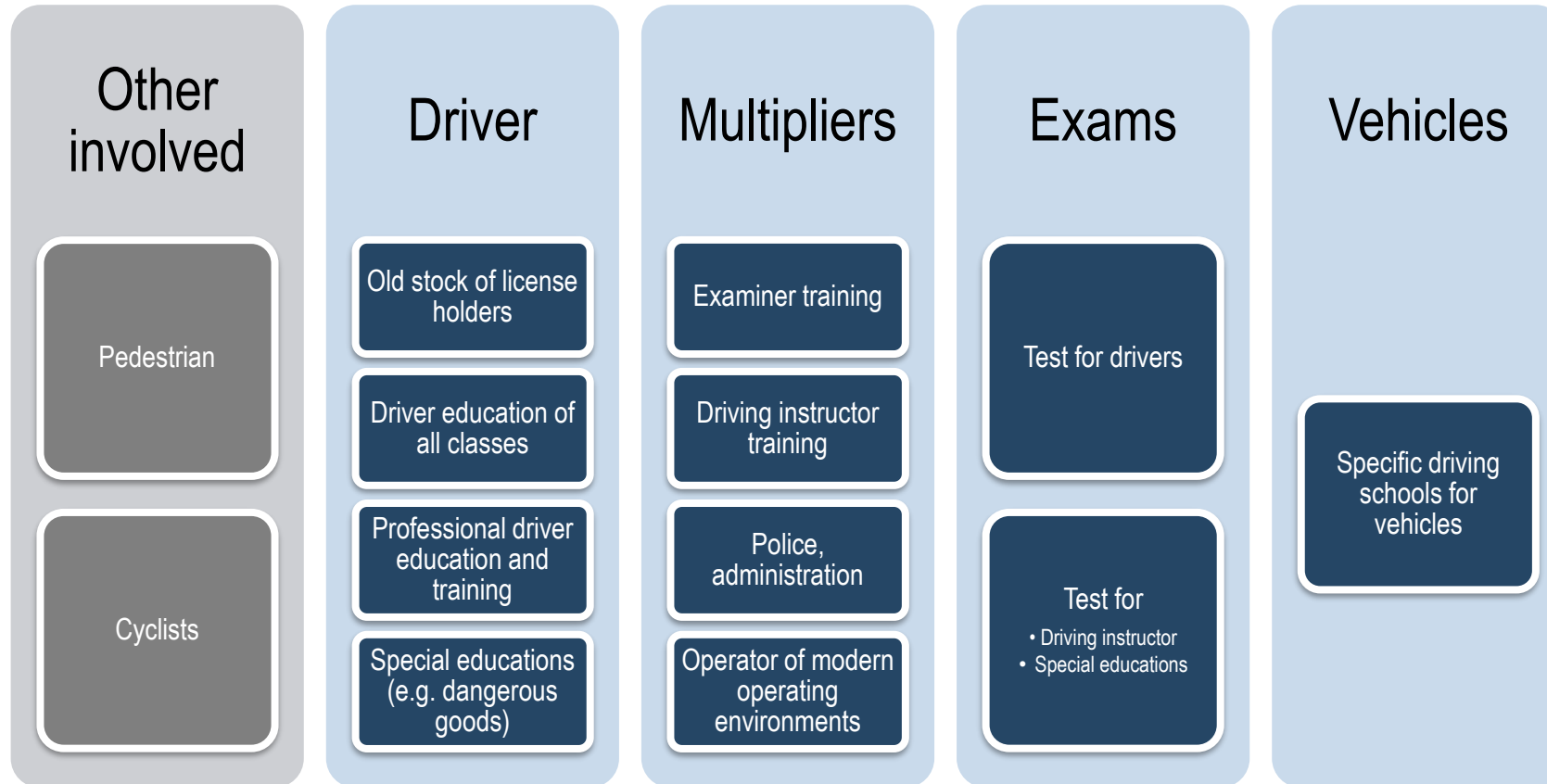
10. Do we still need driver licenses and driving schools?



The answer:
**Training and testing
systems must be
continuously
adapted to the new
developments!**

Call for action

Impact on relevant training systems



Autonomous driving –
KFV project with the subject of
advanced driver assistance systems (ADAS)



Identification of ADAS significant for the driver training of the future

Goals

1. **State-of-the-art-analysis** of the legal framework for the use of ADAS in driver training and testing on a national and international level
2. **Interviews and workshops** with driving examiners and owners of driving schools on the current and future use of ADAS in driver training and testing
3. **Development of an exemplary teaching unit** for driving schools on a selected ADAS with pre- and post-evaluation

Autonomous driving –
KFV project with the subject of
jobs of the future



Job profiles changing

Signpost Designer

Designs road signs and markings which can be easily identified and interpreted by sensors in the car



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Mobile medical practice

Mobile office for medical examination and aid which includes an in-vehicle lab for medical testing and reporting



© rawpixel

Job profiles of the future

Remote driver

Steering and supervising transport vehicles from a remote desk



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Head of digital safety

Testing of worst-case-scenarios in simulations to validate the robustness of networks



© rawpixel

Job profiles of the future

AI data trainer

Developing vehicle-algorithms for traffic environment recognition and keeping databases up-to-date by categorising relevant images



© Becca Tapert

Book-a-friend

A „friend for a ride“, that can be booked to have some conversation or play games together while driving in a fully automated vehicle



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Thank you for your attention!

Dr. Armin Kaltenegger
KFV (Austrian Road Safety Board)
Schleiergasse 18 | A-1100 Vienna
Tel: +43-(0)5 77 0 77-1200
E-Mail: armin.kaltenegger@kfv.at | www.kfv.at

