FEDERATION INTERNATIONALE DE L'AUTOMOBILE
REGION I - EUROPE, THE MIDDLE EAST AND AFRICA

Users' perspective of ITS in 2022 & beyond

UNECE, 21St January 2022

ITS in the vehicles and in mobility

I - ADAS roll out and optimisation needs

II – ITS deployment

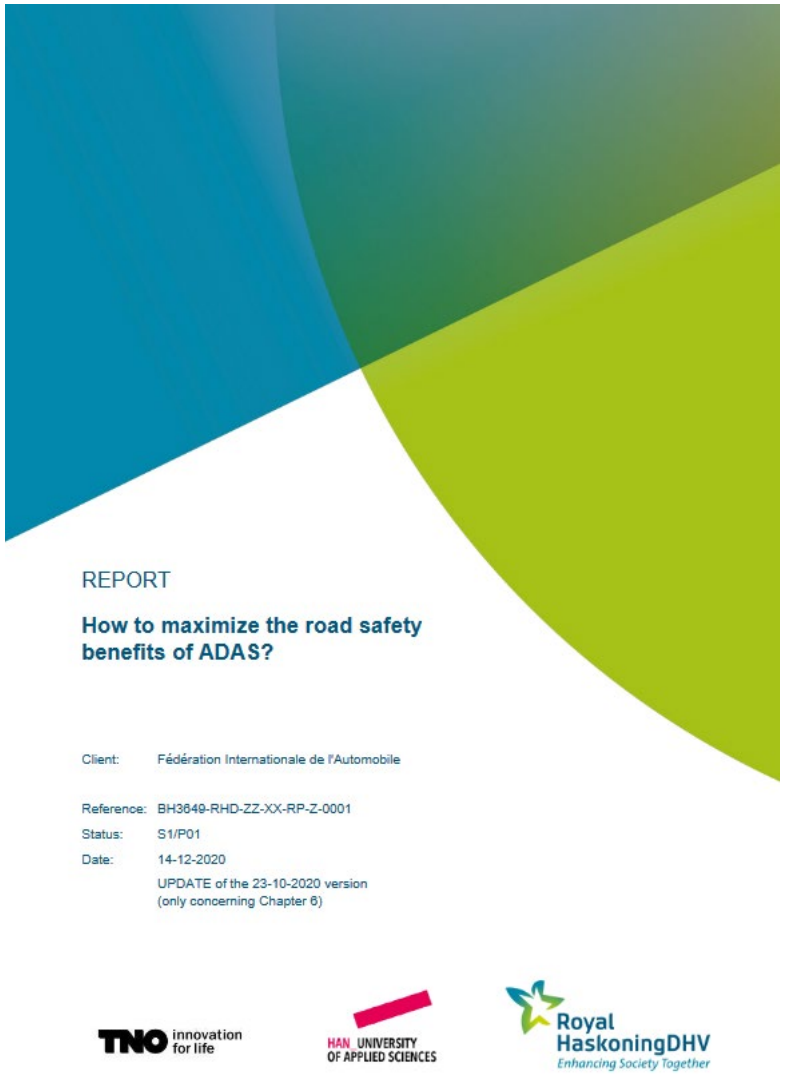
Conclusion

Several ADAS will be in EU vehicles by default

Entry in force	Mandated technologies
6/07/2022	New types • Intelligent speed assistance • Lane departure warning • Tyre pressure monitoring systems for cars (TPMS) • Advanced emergency braking systems for trucks and buses.
7/07/2024	All of the above for all existing types • Emergency lane keeping systems • Tyre pressure monitoring systems for vans, trucks, and buses, Advanced emergency braking systems for cars and vans • Event data recorders

Study to maximise ADAS benefits

"An integrated multi-channel "driver-vehicle-infrastructure" approach is needed to embrace and increase the safety potential of ADAS."



Advanced Emergency Braking

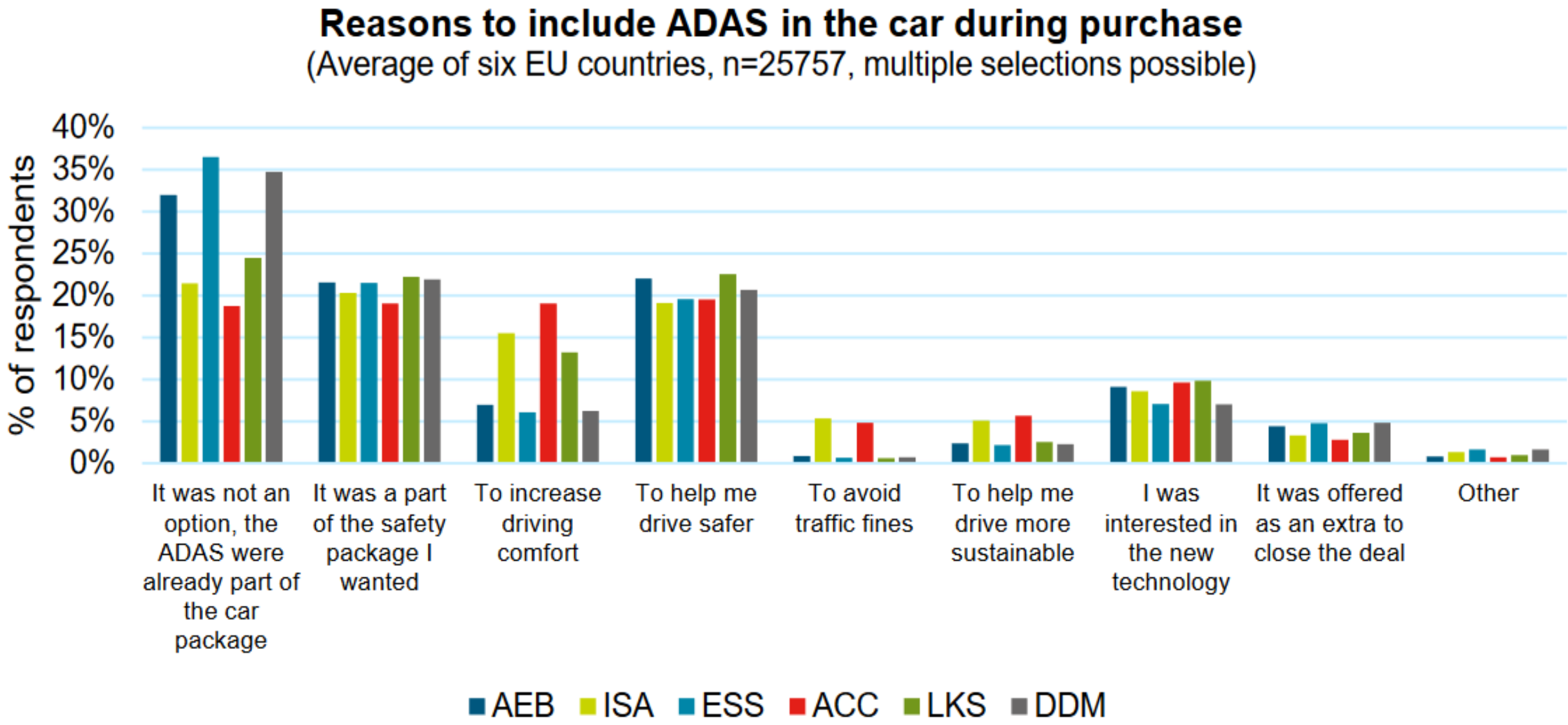
Intelligent Speed Assistance

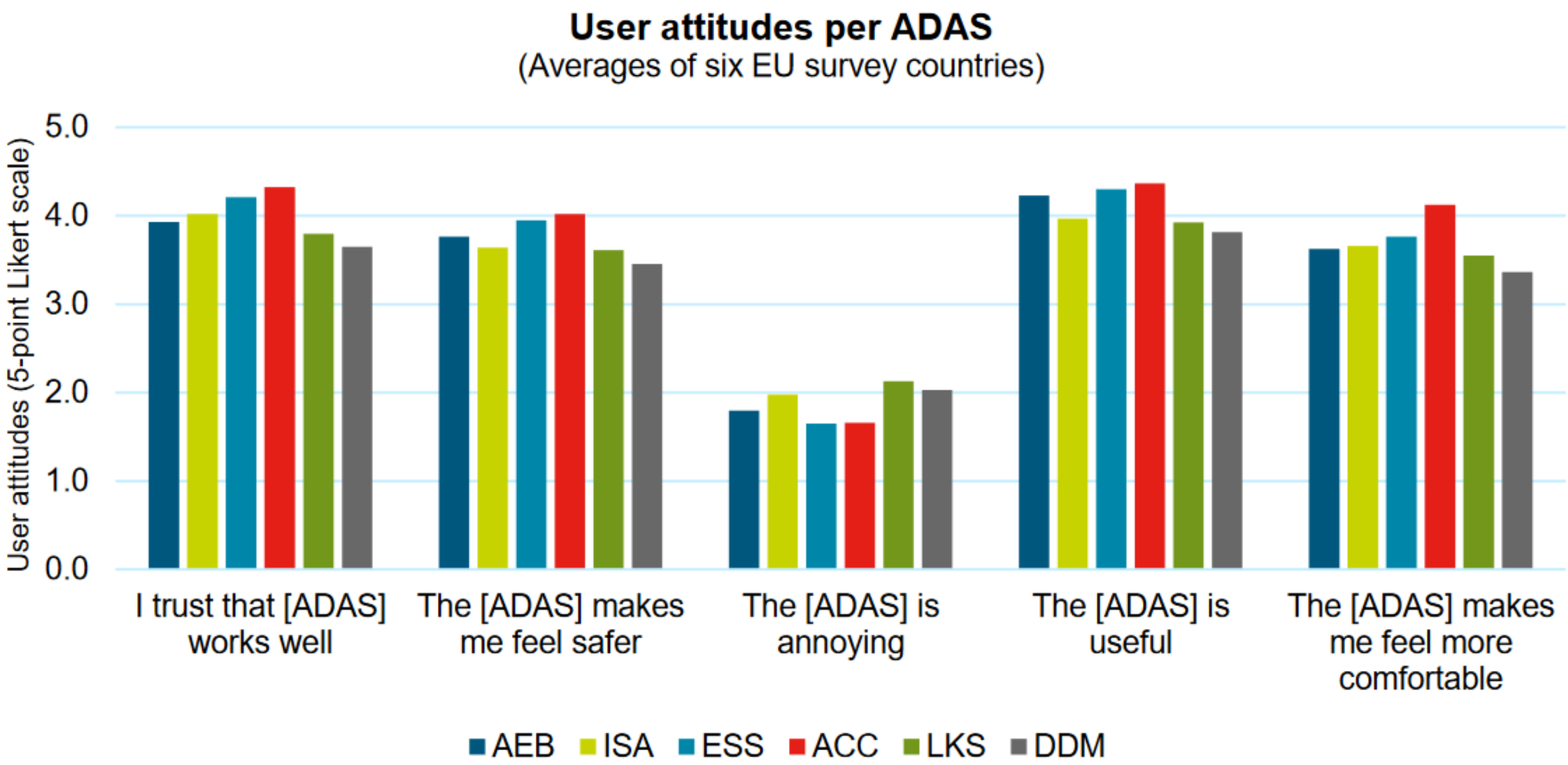
Emergency Stop Signal

Adaptive Cruise Control

Lane Keeping System

Driver Monitoring for Drowsiness


Reasons to include ADAS in the car during purchase
(Average of six EU countries, n=25757, multiple selections possible)
% of respondents
40%
35%
30%
25%
20%
15%
10%
5%
0%
It was not an option, the ADAS were already part of the car package
It was a part of the safety package I wanted
To increase driving comfort
To help me drive safer
To avoid traffic fines
To help me drive more sustainable
I was interested in the new technology
It was offered as an extra to close the deal
Other
AEB
ISA
ESS
ACC
LKS
DDM


User attitudes per ADAS
(Averages of six EU survey countries)
User attitudes (5-point Likert scale)
5.0
4.0
3.0
2.0
1.0
0.0
I trust that [ADAS] works well
The [ADAS] makes me feel safer
The [ADAS] is annoying
The [ADAS] is useful
The [ADAS] makes me feel more comfortable
AEB
ISA
ESS
ACC
LKS
DDM

Most users do not receive training, but rely on information from the car seller, the user manual or they apply the 'trial-and-error' method.

The quality of both information and instruction via these learning methods is found to be imperfect, which means that drivers are provided with incorrect and/or incomplete information.

CONCLUSIONS

- Better information about ADAS (systems limitation and Operation Design Domain)
- Improve accuracy of functioning
- Improve fail safe communication
- Follow pre requisites for HMI design (LKS, ISA, ACC ok)
- Clear maintenance and calibration processes needed over the life time
- Better instructions and training for drivers needed

Harmonised terminology?

- Terminology influences the users' expectations of ADAS' functionality and operation.
- Name must not mislead the users, for example by suggesting that the vehicle's system will drive itself (e.g. "Autopilot", "ProPilot")
- Name must reflection the functionality
- Certain level of harmonization would increase awareness

Consumer expectations in ITS

ITS provides mobility users with dynamic information

Traffic regulations

Safety relevant data

Incidents & warnings

Transport and mobility

Understanding users needs to allow them to embrace the technology

Clarity about benefits

Liability

Protection of personal data

At the point of sales

In plain and understandable language

Clear about limitations

Many systems need critical mass to be relevant

Clarity about benefits

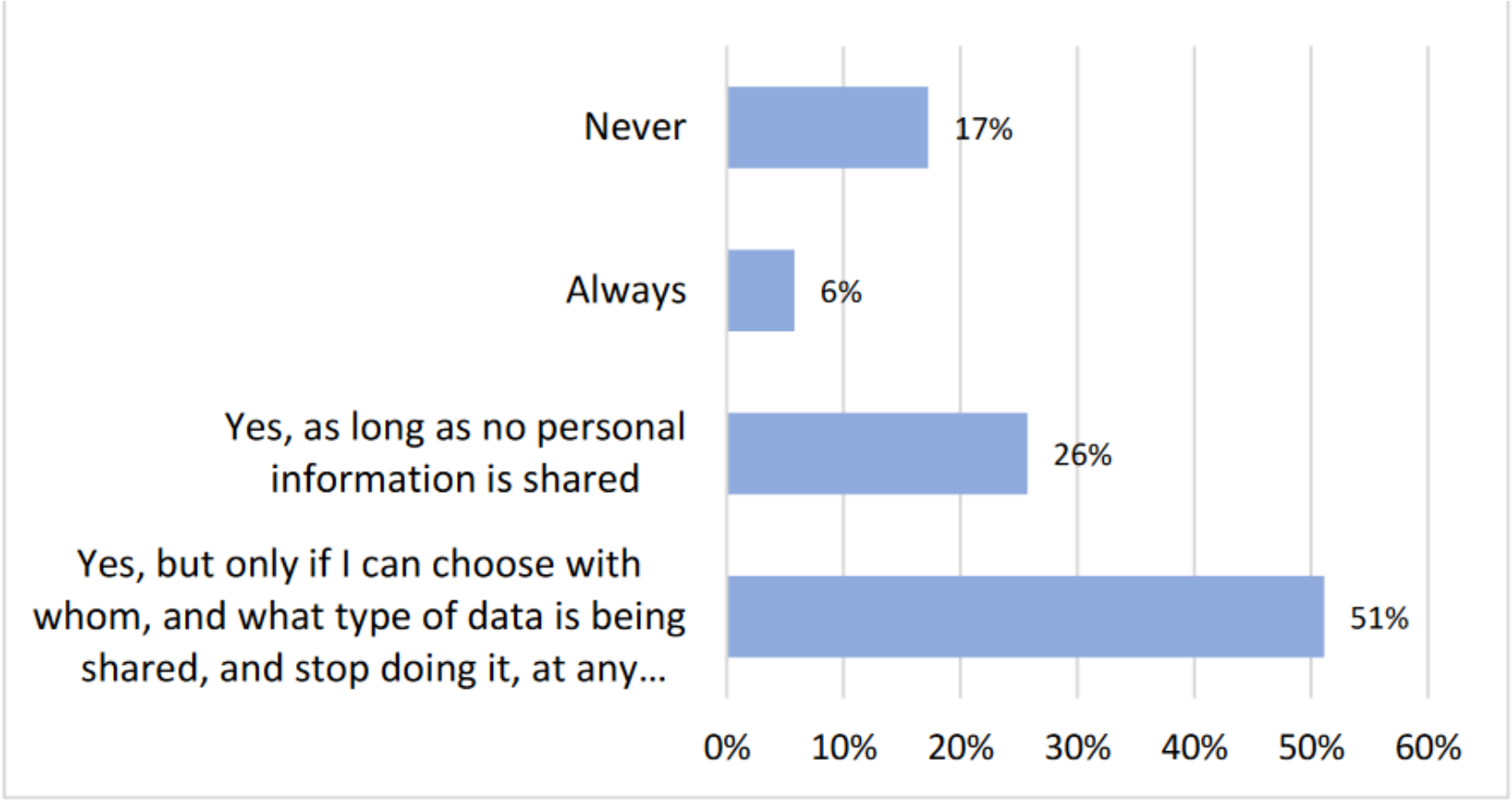
- Safer transport
- More affordable transport
- Time and efficiency gains

Optimising modes - MaaS

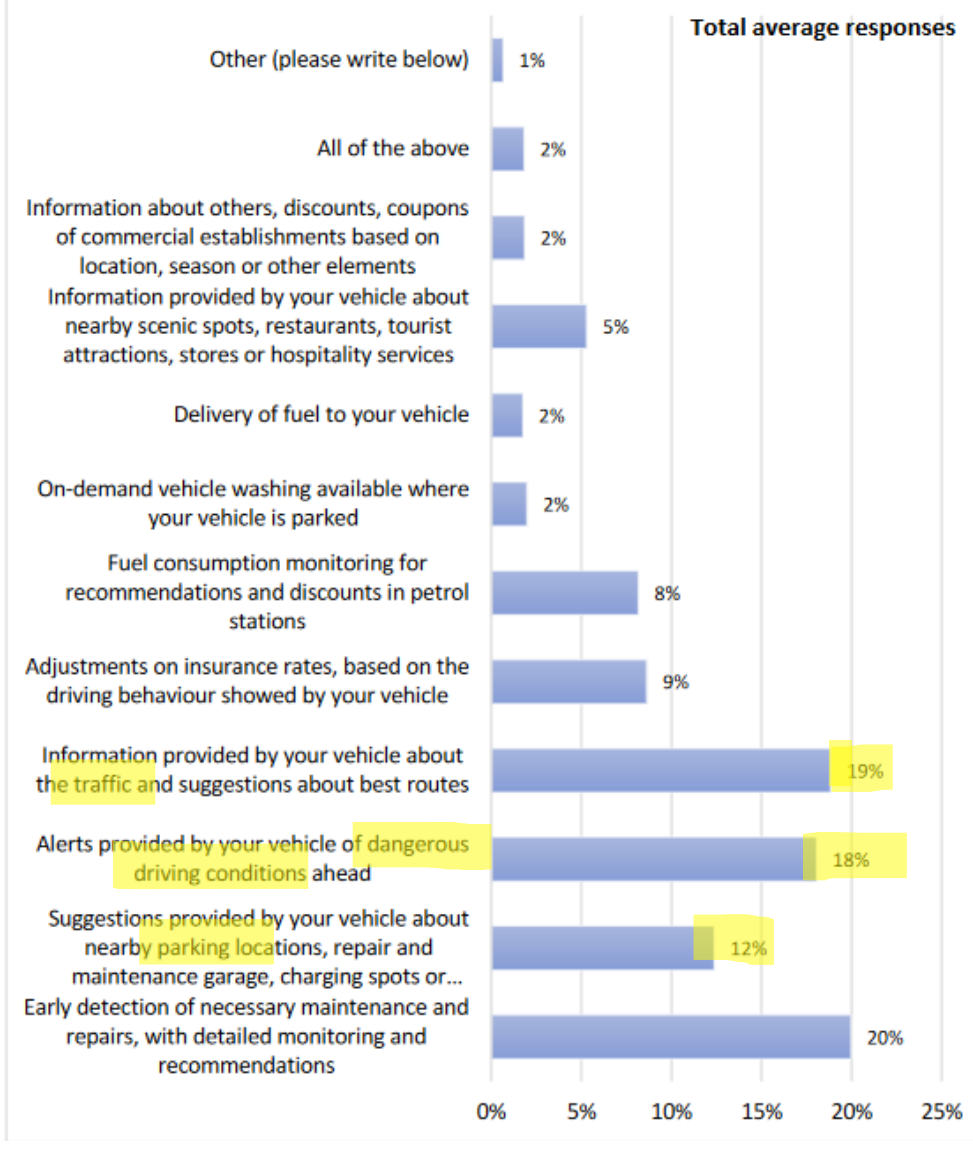
- Inter-modal complementary in mobility planning
- Improving air quality
- Reducing congestion

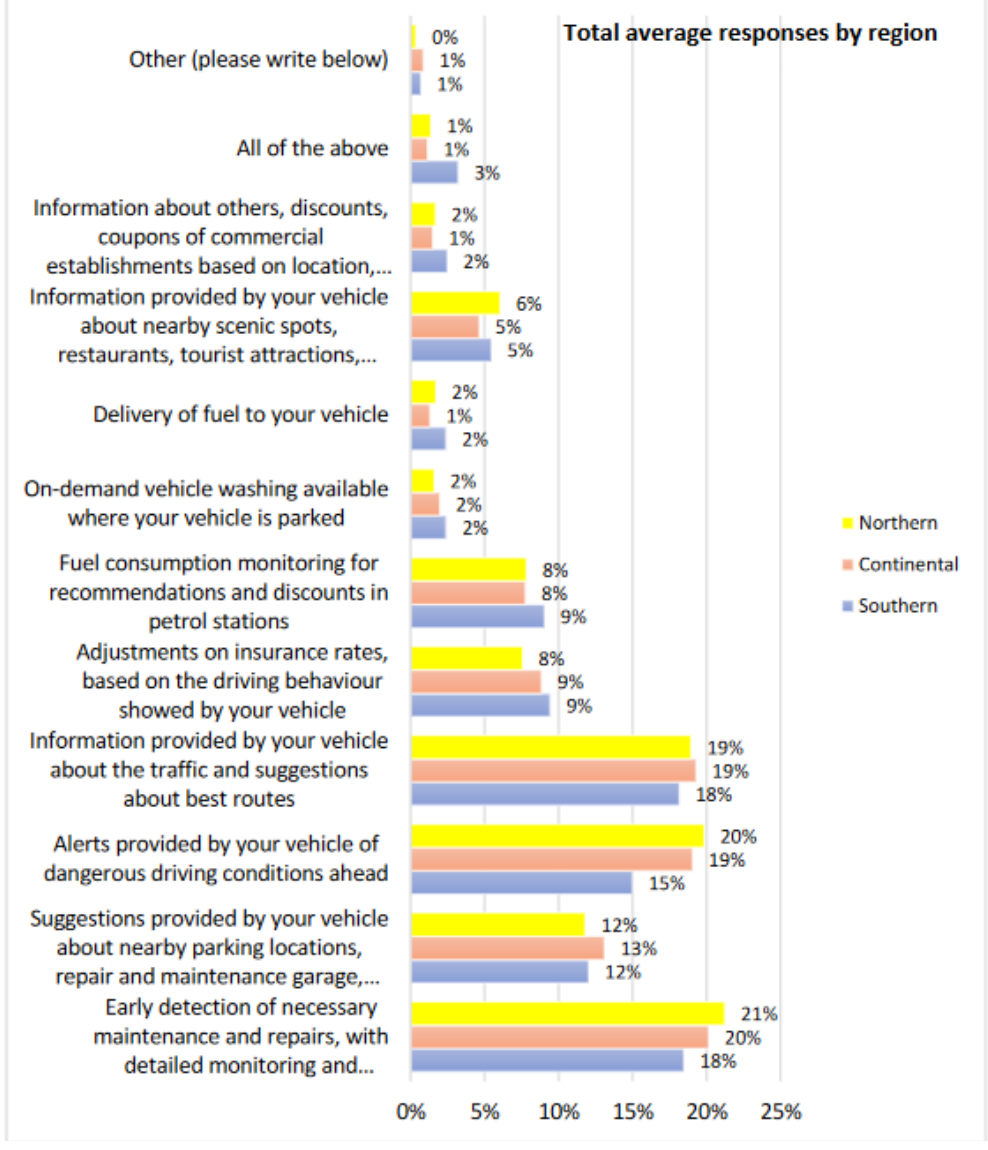
Data Protection

Would you be comfortable sharing information from your vehicles with various stakeholders (including public authorities) in exchange for services or functionalities that could benefit your driver experience or safety?



Would you be willing to share information collected from your vehicle to receive any of the following services?





Information

Clarity about the systems

- Misleading advertisement
- Hard to define a “moment” to inform users (example mystery shopping)
- From ownership to use, may create new challenges

Empower drivers/ users

- Opt-in/ opt out
- Adapt driver training, acquiring the skills first and then getting introduced to ADAS

Thank you for your attention!