

Transmitted by the experts from Germany, UK and Sweden



Presentation 1 (GE.3-08-01)

Eighth session of the GoE on LIAV
2-3 May 2024

Based on the presentation given at
the GE.3 informal meeting on 10-11
April 2024

The line-by-line review of 1949-
and 1968 conventions on Road
Traffic and WP.1 resolutions
2018 and 2022: survey results

GoE on LIAV – WP.1/GE.3


Disclaimers

The answers below were provided by the nominated representatives of the Contracting Parties (CPs) to the 1949 Geneva and the 1968 Vienna Conventions on Road Traffic Safety. They are not binding answers to the Contracting Parties as they are provided in the context of an assessment (informal line-by-line review) during an informal intersessional activity of WP.1/GE.3. Therefore, they can't be read as a background information, explanatory statement or a justification for any document: guideline or regulation or law or decree, issued at city, national or regional level.

To discuss

1. Introduction
2. Presentation of the responses to the survey
3. Exchange of views on the outcomes
4. Next steps

The task from GE.3 – A line-by-line review



47. The expert from France, GE.3 Vice-Chair, presented (on behalf of the GE.3 bureau) Presentation 6, with a set of three questions aimed to support the collective assessment of any gaps in the conventions and resolutions under the auspices of WP.1. She explained that the questions were based on the input received from the two subgroups Co-Chairs, OICA/CLEPA, University of South Carolina, Poland, Japan, German. She also offered a modus operandi for the way forward including the organization of informal (virtual) meetings in English only. The Group of Experts endorsed the proposal with the three questions reading:

- (a) Is this provision ambiguous as it applies to ADS (if yes, is the provision not comprehensive of ADS? Is anything missing?)
- (b) Does this provision compromise road user safety when it applies to ADS?
- (c) Does this provision prevent the use of ADS in international road traffic (including cross border operations)? (If yes, what are the barriers/obstacles in this provision)?

Report of the Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic on its seventh session – December 4 2023

<https://unece.org/sites/default/files/2024-01/ECE-TRANS-WP.1-GE.3-2023-4e.pdf>

Task from GE.3 – Input on any other missing elements



48. The Group of Experts also **agreed to collect input on any elements that would be missing in the documents reviewed**. The expert from the United Kingdom of Great Britain and Northern Ireland stressed that simply answering these questions clause by clause may not identify all the gaps in the existing legal instruments and so this would require careful consideration when analyzing the responses.

Not done in this line-by-line review!

Existing sources for this:

- *Survey of experts led by the GE.3 Secretariat and presented at the 2nd GE.3 Session (Dec 2021)*
- *Assessments of the risks informed by survey and informal meetings presented at the 3rd GE.3 Session, led by CAN and SE with support from GE.3 Secretariat (May 2022)*
- Presentations from FRA, OICA, ETSC and University of South Carolina at the 3rd GE.3 Session on types of international legal instruments and issues that could be addressed by a new instrument (May 2022)
- Presentations from the GE.3 Secretariat on the history of the existing legal instruments and types of legal instruments at the 4th GE.3 Session (Sept 2022)
- Questions and answers regarding the new legal instrument on the use of automated vehicles in traffic (Dec 2022)
- Assessment of gaps in the existing legal instruments and identification of needs to be addressed – a scoping draft approach submitted by FIN, DE, GR, LUX, NL, POL, POR, SE and UK for the 6th GE.3 Session (May 2023)
- Summaries of responses to assessment templates submitted by subgroup co-chairs (USA, FIN, CAN and NL) to the 7th GE.3 Session (Dec 2023)
- Industry views on gaps that need addressing submitted by OICA/CLEPA to the 7th GE.3 Session (Dec 2023)

Report of the Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic on its seventh session – December 4 2023

<https://unece.org/sites/default/files/2024-01/ECE-TRANS-WP.1-GE.3-2023-4e.pdf>

Responses to the survey



The survey started on 5 February and 12 contracting parties responded.

1949 Convention on Road Traffic – **9**

1968 Convention on Road Traffic – **10**

Resolution on the Deployment of Highly
and Fully Automated Vehicles in Road Traffic, 2018 – **9**

Resolution on safety considerations for activities other than
driving undertaken by drivers when automated driving systems
issuing transition demands exercise dynamic control, 2022 - **9**

Results of the survey – answers to 1949 and 1968 Conventions, (a), (b) and (c)



UNITED NATIONS CONFERENCE ON ROAD AND MOTOR TRANSPORT
 Geneva, 23 August — 19 September 1949


Final Act
 Convention on Road Traffic
 Protocol concerning Countries or Territories at present occupied
 Protocol on Road Signs and Signals
(including amendments that entered into force on 22 October 1964)

CONFERENCE DES NATIONS UNIES SUR LES TRANSPORTS ROUTIERS ET LES TRANSPORTS AUTOMOBILES
 Genève, 23 août — 19 septembre 1949

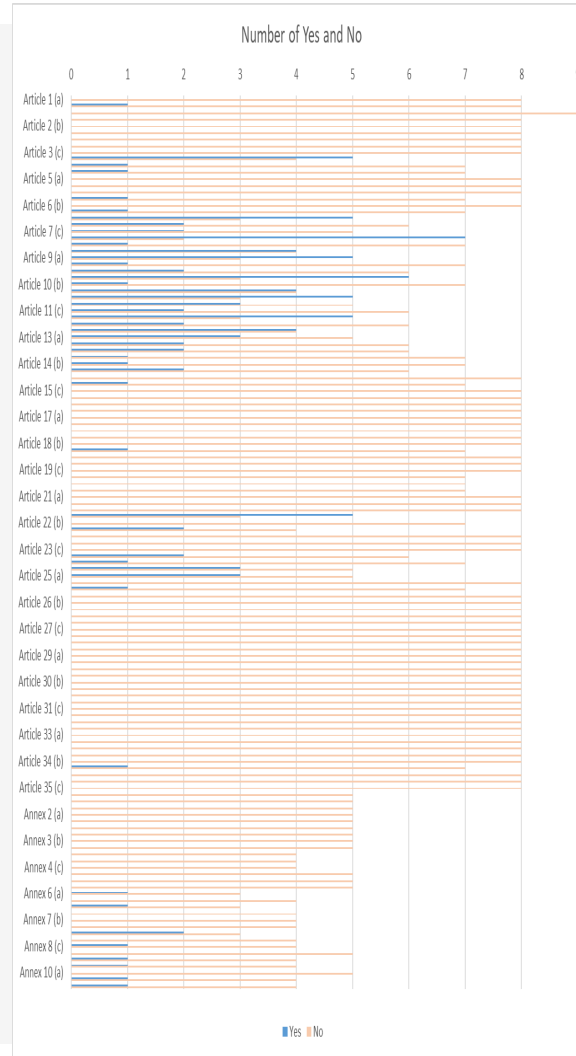
Acte final
 Convention sur la circulation routière
 Protocole relatif aux pays ou territoires présentement occupés
 Protocole relatif à la signalisation routière
(comprenant les amendements entrés en vigueur le 22 octobre 1964)

CONFERENCIA DE LAS NACIONES UNIDAS SOBRE TRANSPORTE POR CARRETERA Y TRANSPORTE POR VEHICULOS AUTOMOTORES
 Ginebra, 23 de agosto — 19 de septiembre de 1949

Acta final
 Convención sobre la circulación por carretera
 Protocolo relativo a los países o territorios actualmente ocupados
 Protocolo relativo a las señales de carreteras
(que comprende las enmiendas que entraron en vigor el 22 de octubre de 1964)



Lake Success, New York
1950

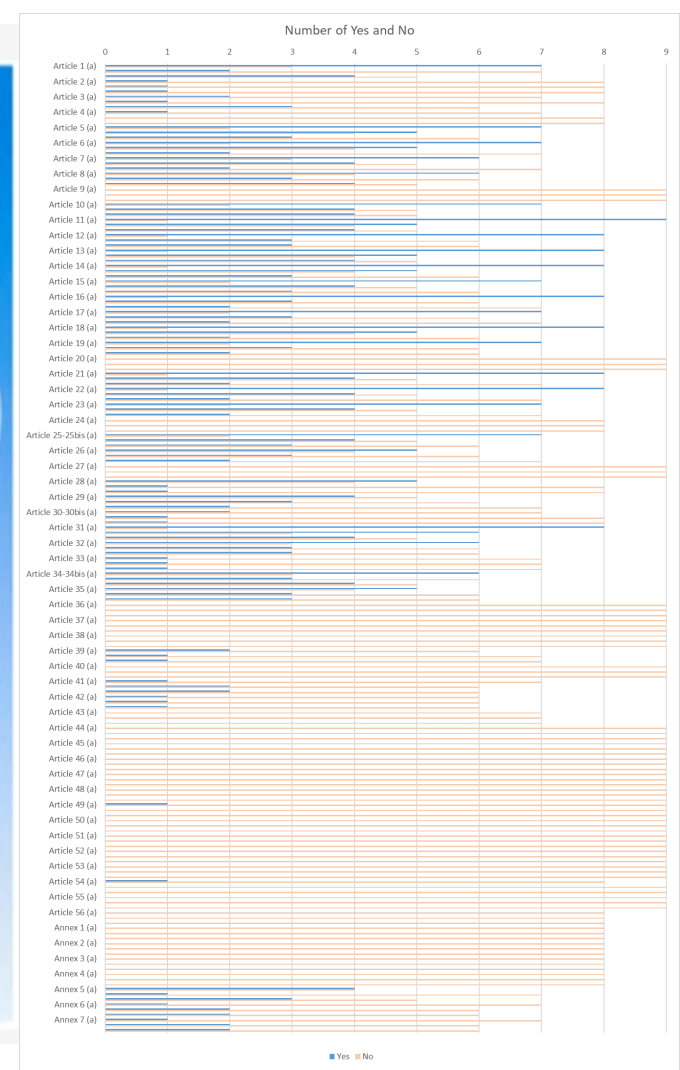


ECONOMIC COMMISSION FOR EUROPE
 Transport Division

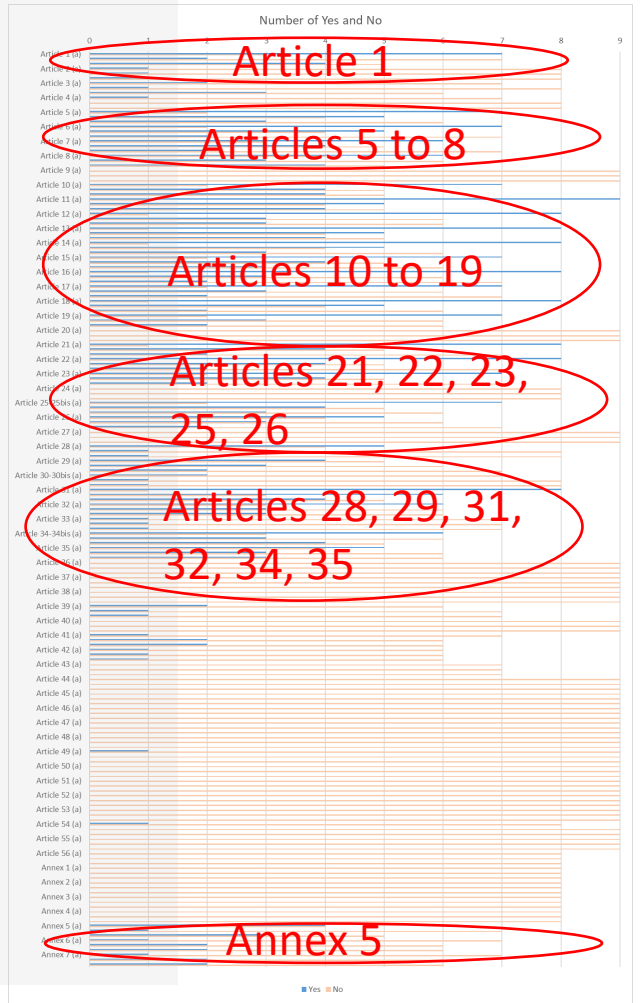
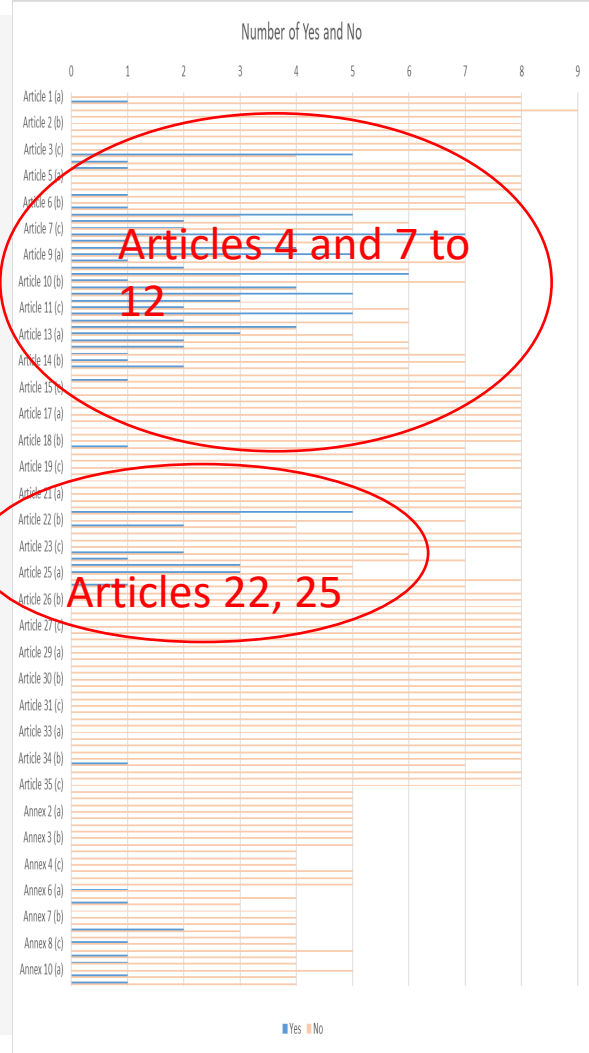
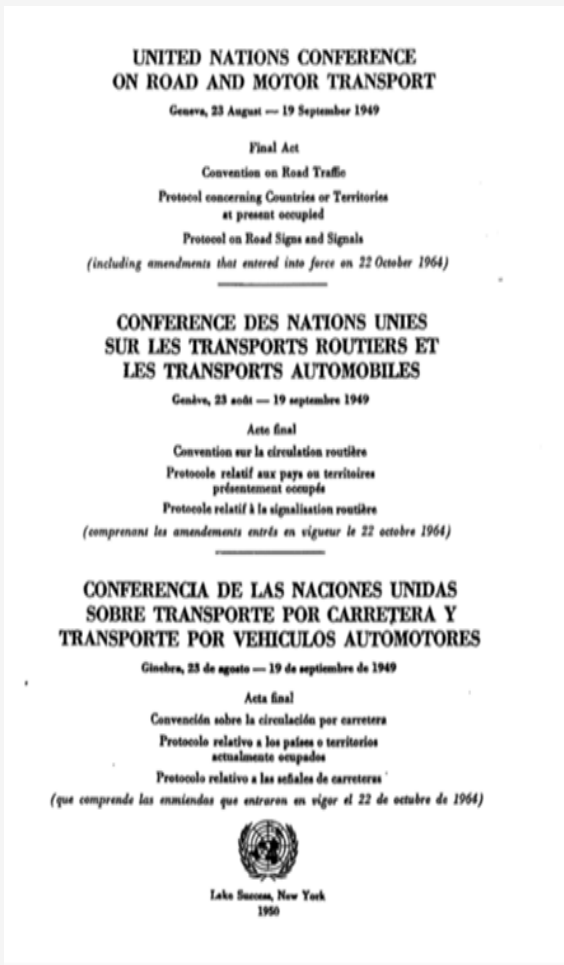
Convention on Road Traffic of 1968 and European Agreement Supplementing the Convention
 (2006 consolidated versions)



UNITED NATIONS



Results of the survey – answers to 1949 and 1968 Conventions, (a), (b) and (c)



Results of the survey for 1949 and 1968 Conventions– ‘no’ only answers



1949 Convention - chapters

1. General provisions (articles 2, 3 and 5)
 2. Rules of the road (article 16)
 3. Signs and signals (article 17)
 4. Provisions applicable to motor vehicles and trailers in international traffic (articles 19-21 and 23)
 5. Provisions applicable to cycles in international traffic (article 26)
 6. Final provisions (articles 27-33, 35)
- Annexes 1-5 and 7

1968 Convention - chapters

2. Rules of the road (articles 9, 20, 24, 27)
 3. Conditions for the admission of motor vehicles and trailers to international traffic (articles 36-38 and 40)
 4. Drivers of motor vehicles (article 43)
 5. Conditions for the admission of cycles and mopeds to international traffic (article 44)
 6. Final provisions (articles 45-48, 50-53 and 55-56)
- Annexes 1-4

Results of the survey for 1949 and 1968 Conventions– clusters of ‘yes’ answers to (a), (b) and (c)



1949 Convention - chapters

1. General provisions (article 4)
2. Rules of the road (articles 7-12)
4. Provisions applicable to motor vehicles and trailers in international traffic (article 22)
5. Drivers of motor vehicles in international traffic (Article 25)

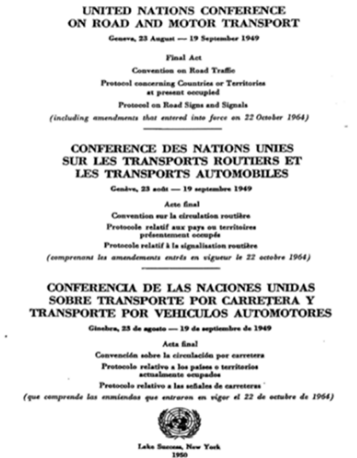
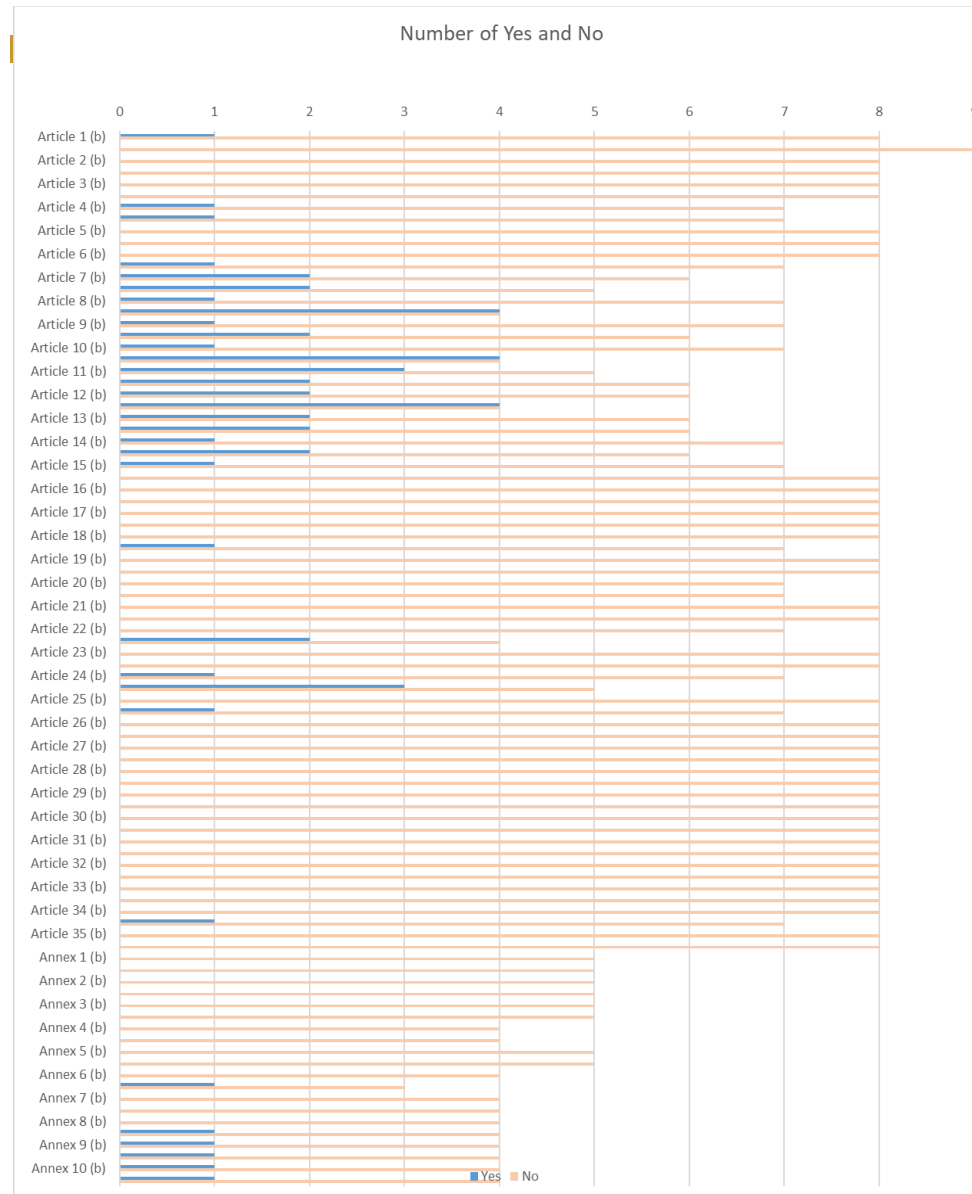
1968 Convention - chapters

1. General provisions – Definitions (article 1)
 2. Rules of the road (articles 5-8, 10-19, 21-23, 25,26, 28, 29, 31, 32, 34, 35)
- Annex 5 – Technical conditions concerning motor vehicles and trailers

Results of the survey – answers to 1949 Convention, only (b) and (c)

(b) Does this provision compromise road user safety when it applies to ADS?

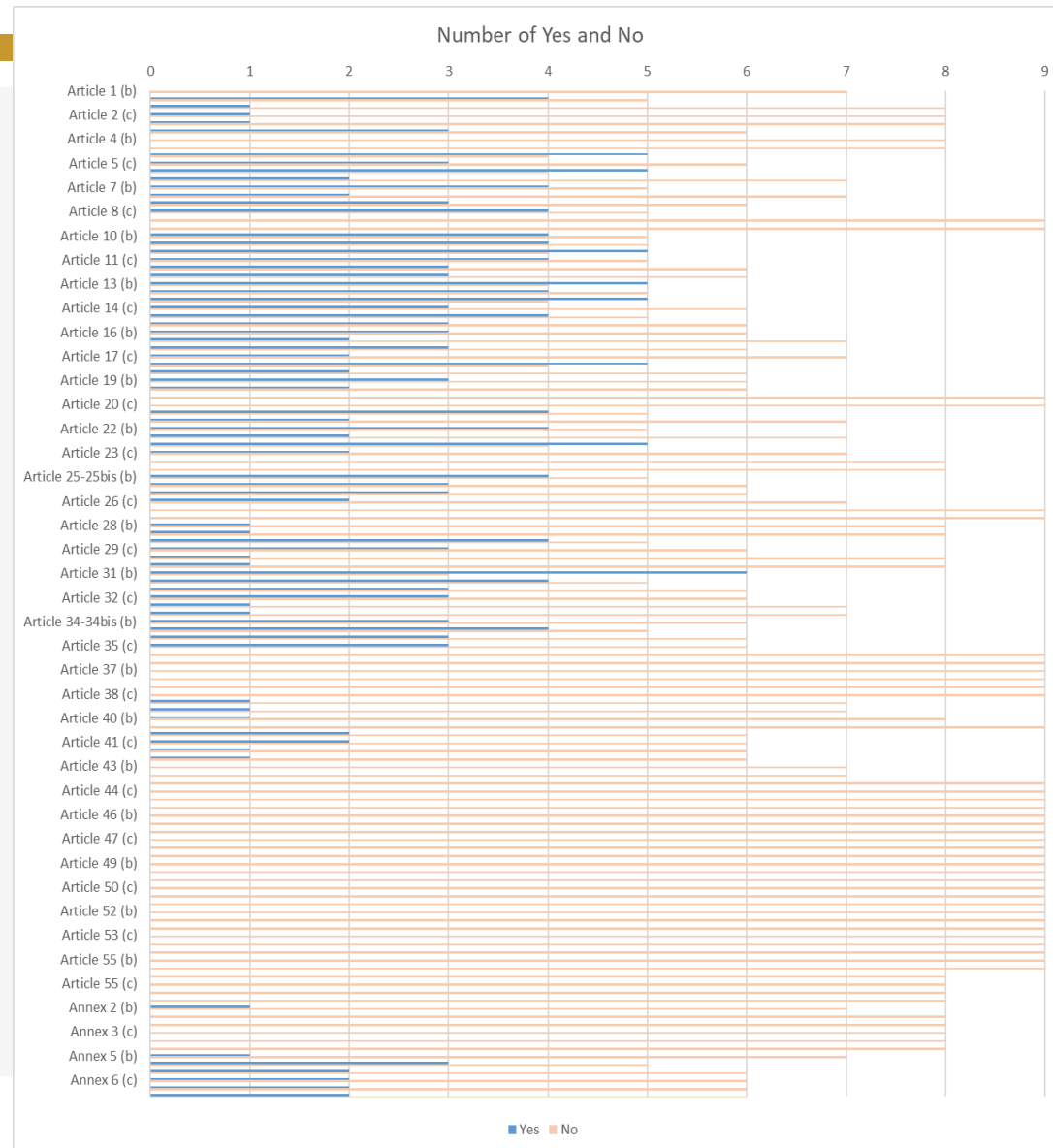
(c) Does this provision prevent the use of ADS in international road traffic (including cross border operations)?



Results of the survey – ‘yes’ answers to 1968 Convention, only (b) and (c)

(b) Does this provision compromise road user safety when it applies to ADS?

(c) Does this provision prevent the use of ADS in international road traffic (including cross border operations)?



Responses to the resolutions



Answers from 8 CP:s

(a) Is this provision ambiguous as it applies to ADS (if yes, is the provision not comprehensive of ADS? Is anything missing?)

(b) Does this provision compromise road user safety when it applies to ADS?

(c) Does this provision prevent the use of ADS in international road traffic (including cross border operations)?

2018 resolution

	Yes	No
A) SCOPE (a)	0	8
A) SCOPE (b)	0	8
A) SCOPE (c)	2	7
B) DEFINITIONS (a)	4	5
B) DEFINITIONS (b)	2	7
B) DEFINITIONS (c)	3	6
C) RECS FOR ADS (a)	3	5
C) RECS FOR ADS (b)	1	7
C) RECS FOR ADS (c)	2	6
D) RECS FOR USERS (a)	3	6
D) RECS FOR USERS (b)	2	7
D) RECS FOR USERS (c)	3	6
E) FURTHER RECS (a)	1	7
E) FURTHER RECS (b)	1	7
E) FURTHER RECS (c)	3	6

2022 resolution

	Yes	No
A) SCOPE AND DEF (a)	2	6
A) SCOPE AND DEF (b)	1	7
A) SCOPE AND DEF (c)	3	6
B) RECS FOR ADS TR DEM (a)	2	6
B) RECS FOR ADS TR DEM (b)	1	7
B) RECS FOR ADS TR DEM (c)	3	6
C) RECS FOR DRIVERS (a)	2	6
C) RECS FOR DRIVERS (b)	1	7
C) RECS FOR DRIVERS (c)	3	6
D) RECS FOR MAN (a)	2	6
D) RECS FOR MAN (b)	1	7
D) RECS FOR MAN (c)	1	8
D) RECS FOR CP (a)	0	8
D) RECS FOR CP (b)	1	7
D) RECS FOR CP (c)	3	6

Results of the survey – examples of answers to the 1949 Convention

To observe, answers in (a), (b) and (c) come from different CP:s!



Chapter 1. General provisions

Article 4. “Expressions and meanings”

(a) *“The definition of driver seems insufficient to cover the role foreseen by the manufacturers for the person in an ADS vehicle. It is moreover interesting to observe that in this definition of ‘driver’ in comparison to the Vienna convention the possibility exists that a driver is also deemed to be the person who is in ‘actual physical control’ of the vehicle. In relation to ADS it would be necessary to have a discussion when the requirement ‘actual physical control’ is deemed to be fulfilled.”*

(b) *“It should be avoided that on the one hand the manufacturer alleges that the driver may not have to perform his tasks and is not in control of the vehicle, while pursuant to the relevant rules (treaties, etc.) the driver should be in control. This ambiguity is undesirable and may lead to uncertainties as to what the obligations of the driver are and hence may decrease road user safety.”*

(c) *“The lack of clarity regarding the role of the driver in an ADS vehicle may lead to different views in different countries. This may lead to barriers, obstacles and additional uncertainty for the road user (for example driver, operator, supervisor, etc.)”*

	Yes	No
(a)	5	4
(b)	1	7
(c)	1	7

Chapter 2. Rules of the road

Article 8 “Driver”

(a) *“Paragraphs 1, 3, and 5 refer to a driver. According to our understanding, the current definition of a driver does not take into account ADS, since it is defined as the person driving the vehicle. In so far as it is mentioned that every vehicle must have a driver and that this driver must be a person, we are of the opinion that this provision does prevent ADS”.*

(c) *“Insofar as it is mentioned that every vehicle must have a driver and that this driver must be a person, we are of the opinion that this provision does prevent ADS.”*

	Yes	No
(a)	7	2
(b)	1	7
(c)	4	4

Results of the survey – examples of answers to the 1949 Convention (cont.)

	9(a)	9(b)	9(c)	10(a)	10(b)	10(c)	11(a)	11(b)	11(c)	12(a)	12(b)	12(c)
Articles 8 - 12. “Driver” (cont.)												
Yes	5	1	2	6	1	4	5	3	2	5	2	4
No	3	7	6	3	7	4	3	5	6	3	6	4

(a) “An amendment is needed in the expression of how the driver is always in control of the vehicle’s speed in order for autonomous driving operation permission”. (Article 10)

(b) “Overtaking is complex and any error or misappreciation can cause severe damage. In case the capabilities of ADS in overtaking context would surpass those of human drivers, an overtaking ADS could incite following drivers to take inconsiderate risks. (Article 11)

(c) “The obstacles arise because the article is not adapted for vehicles with ADS. (Article 11)

Chapter 4. Provisions applicable to motor vehicles and trailers in international traffic

Article 22. Islands on the carriageway

	Yes	No
(a)	5	3
(b)	0	7
(c)	2	4

(a) “In order to permit autonomous driving, the Geneva Convention article 22 section 2 needs additional improvisation. At least the Vienna Convention article 39 section 1 sentence 3 type of policy or similar should be improvised”. (Article 22)

(c) “The obstacles arise because the article is not adapted for vehicles with ADS. (Article 22)

Chapter 5. Drivers of motor vehicles in international traffic

Articles 24-25. Allow drivers to its territory and communicating of information to establish identity

	24(a)	24(b)	24(c)	25(a)	25(b)	25(c)
Yes	2	1	3	3	0	1
No	6	7	5	5	8	7

(a) “Please see general comment on the definition of driver. If we were to consider that the driver could be a system, it would be necessary to specify that the driving license is limited to drivers who are natural persons.” (Article 24)

(C) “The article only provides for allowing human drivers to use the roads in other countries, there are no requirements to admit vehicles without human drivers”. (Article 24)

Results of the survey – examples of answers to the 1968 Convention

To observe, answers in (a), (b) and (c) come from different CP:s!



Chapter 1. General provisions

	Yes	No
(a)	7	3
(b)	2	7
(c)	4	5

Article 1. Definitions

(a) *“According to our understanding, it is unclear whether the use of the term “driver” in this provision, read especially in conjunction with Arts. 1 lit. (v), 8 and 34bis, can be upheld without any edits or additions under an ADS scenario. N.B.: The above stated comment applies mutatis mutandis to the subsequent questions (a) answered with “yes.”*

(b) *“Lack of necessary definitions and the unclarity of the definition the “driver” are part of the problem that the humans do not understand their roles and responsibilities when using AVs. This concerns especially cases where there is a responsible human inside the vehicle.”*

(c) No “Yes” answers!

	Yes	No
(a)	7	2
(b)	5	4
(c)	2	7

Chapter 2. Rules of the road

Article 6. Instructions given by authorized officials

(a) *“The sentence 2 need to be added with the concept of ADS, eg. ADS and Road-users shall promptly obey all instructions given by authorized officials directing traffic”.*

(b) *“The ADS may not be able to read the human gestures.”*

(c) *“The possible unclarity might be an impediment to the use of ADS in international road traffic”*

Results of the survey – examples of answers to the 1968 Convention (cont.)



Chapter 2. Rules of the road (cont.)

	7(a)	7(b)	7(c)	8(a)	8(b)	8(c)
Yes	6	4	2	6	3	4
No	3	5	7	4	6	5

Article 8. Drivers

(a) *“Please see general comment on the definition of driver. Additionally, we find it difficult to conceive that an ADS should possess physical and mental abilities as expected of a driver. Should a revision of the definition be undertaken to accommodate the fact that the latter can also be a system, this consideration must be taken into account. This observation also applies to paragraph 6”.*

(b) *“These rules are central road safety provisions in the Convention. Uncertainty concerning who bears these responsibilities when the ADS is having the dynamic control of the vehicle is a major road safety concern”.*

(c) *“If interpretations of this article vary as concerning AVs, it may cause problems in cross-border traffic”*

Articles

a,b,c	10	11	12	13	14	15	16	19	18	19	21	22	23	25 ^a	26	28	29	31	32	34 ^b	35
Yes	744	954	833	854	853	743	832	732	852	732	842	842	742	743	532	511	432	864	633	634	533
No	255	145	166	145	146	256	167	267	146	266	157	157	257	256	467	488	567	135	366	365	466

10-19,21-23,25-26,28-29,31-32,34-35

(a) *“Please see general comment on the definition of driver. Moreover, these provisions leave considerable room for interpretation and evaluation by the driver. It might be challenging for the ADS to make interpretations and judge what may or may not be reasonable or to understand if someone has or not signaled their intention to make a maneuver”. (Article 11 and same in articles 12-19, 22, 23, 25 and 31)*

(b) *“As mentioned above, interpretation errors can occur, thereby posing a potential danger to road users. (Article 11)*

(c) *“The provision does not explicitly prevent the use of ADS in international road traffic. However, the absence of clear guidelines for ADS may create obstacles related to international harmonization and mutual recognition of autonomous driving technologies”. (Article 13)*

Annex 5

	(a)	(b)	(c)
Yes	4	1	3
No	4	7	5

(A) *“Not clear how the requirements in 46 and 47 are met by an AV which does not have steering controls in the vehicle. 47 appears unnecessary for vehicles with no human driver. Clause 60c allows exemptions only for experimental vehicles. 49 also talks about drivers - should it be added here?”*

(c) *“Differences in interpretation of how the requirements set out above apply to AVs could result in a barrier to international traffic”.*

a) Articles 25 and 25Bis; b) Articles 34 and 34Bis

Results of the survey – examples of answers to the resolutions

To observe, answers in (a), (b) and (c) come from different CP:s!



2018 resolution

Scope (c)

“Resolutions are legally non-binding in nature. They are very useful as they may include important principles and thus give some guidance for the states. However, as they currently are, they do not cover all the issues related to automated driving. Furthermore, they not provide a proper international legal framework for the deployment of automated vehicles in road traffic”

Further recs. (b)

“Possibly, if the recommendations are incorporated in a different way in the various national laws, this may cause unclarity and may compromise road user safety”.

2022 resolution

Scope and Def. (a)

“This provision appears ambiguous because, in the conception we have considered in responding to these questionnaires, the ADS is regarded as fully automated and therefore should not issue transitions demands with the expectation for the human driver to intervene in response to that demand”.

Recs. for CP (c)

“The text in resolutions provides guidance to contracting parties but is not legally binding and therefore does not provide a basis for enabling deployment in international traffic.”

To conclude:



- There are clear differences in opinion between nominated representatives on how the existing legal instruments apply to automated driving
- Germany, Sweden and the UK would like to thank all for all the responses submitted

Questions/comments?