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**Economic Commission for Europe**

Inland Transport Committee

**Global Forum for Road Traffic Safety**

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Item 7 of the provisional agenda

**Sustainable Development Goals: Potential contribution by  
WP.1**

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This document provides a detailed description of an assessment process which could be used to evaluate WP.1 contribution to the ITC Strategy or its contribution to SDG goals 3.6 and 11.2. The document also contains an example of a case study on impact assessment of the explanatory memorandum to Article 34bis amendment proposal.

## **The Global Forum for Road Safety and use of Impact Assessments to support the ITC-strategy**

1. The United Nations (UN) general Assembly has reaffirmed its resolution 70/1 of 25 September 2015, entitled “Transforming our world: the 2030 Agenda for Sustainable Development”, and also reaffirmed the unwavering commitment to achieving the Agenda and utilizing it to the full to transform our world for the better by 2030 (A/RES/74/298, adopted on 12 August 2020).

2. The UN General Assembly also commends, in their resolution A/RES/74/299 (Improving global road safety, adopted on 31 August 2020), the work of two Economic Commission for Europe groups of experts, namely, on road signs and signals and on improving safety at level crossings, and recognizing the continuous work of the Global Forum for Road Traffic Safety and the World Forum for Harmonization of Vehicle Regulations to improve vehicle and road safety.

3. However, the UN General Assembly also express concern in the same resolution about that target 3.6 of Sustainable Development Goal 3 will not be met by 2020. By this the UN Proclaims the period 2021–2030 as the Second Decade of Action for Road Safety, with a goal of reducing road traffic deaths and injuries by at least 50 per cent from 2021 to 2030, and in this regard calls upon Member States to continue action through 2030 on all the road safety-related targets of the Sustainable Development Goals, including target 3.6.

4. The UN General Assembly also noted in their resolution (A/RES/74/299) that continuous progress of automotive and digital technologies could improve road safety, including through the progressive development of highly and fully automated vehicles in road traffic.

### **The Inland Transport Committee Strategy until 2030**

5. The reaffirmed UN resolution (A/RES/74/298) was initially in September 2015 adopted by the UN's member states adopted Agenda 2030 for sustainable development, containing 17 global goals (SDGs). The Agenda 2030 makes it clear that all goals jointly define a sustainable society and that the goals are integrated in a sustainable development. The transportation system is integrated in the majority of the goals and has the potential to influence a sustainable society in all three dimensions; socially, economically and ecologically. The Inland Transport Committee (ITC) at its eighty-first session in 2019 considered and adopted by acclamation the ITC strategy until 2030<sup>1</sup>, including vision, mission, strategic objectives, an action plan, list of priorities and resource mobilization and partnership. The Inland Transport Committee also expressed its concern for the limited progress globally in meeting the Sustainable Development Goal targets on road safety and those of the United Nations Decade of Action for Road Safety.

### **ITC special priority of global interest for sustainability: Road Safety**

6. Mindful of the shortfalls in achieving the SDG target on road safety (3.6) by 2020 due to growing trend of road fatalities globally, ITC will enhance its regulatory functions for improving road safety performance and thus contribute to the achievement of the road safety aspirations set by the international community. For this purpose, the ITC and its subsidiary bodies are supposed to strengthen their activities related to the United Nations legal instruments on road safety under the purview of the ITC as below:

- to support contracting parties in developing, improving and sustaining their national road safety systems;

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<sup>1</sup> ECE/TRANS/288/Add.2

- to further promote the accession and effective implementation of the United Nations legal instruments;
- to support the efforts of the United Nations Secretary General’s Special Envoy for Road Safety in promoting global accession to the United Nations legal instruments; and
- to play an effective role as the international regulatory support provided in the United Nations Road Safety Trust Fund Global Framework Plan of Action for Road Safety.

7. In the ITC-strategy, a special attention is on WP.1 as ITC look on WP.1 as a core global ECE/ITC competence and strength for the progress towards the implementation and fulfilling of the strategy in which WP.1 is assigned for two priority actions which are supposed to increase safety until 2030:

- further expand global participation in, and cooperation between, WP.1 and WP.29 to be part of regional and global platforms for digitalization, automated driving and intelligent transport systems<sup>2</sup> and
- on behalf of ITC contribute to be a leader on the road to safety: helping the global community meet global road safety targets with, especially on the SDGs 3.6 and 11.2<sup>3</sup> as the main targets for WP.1 to focus on<sup>4</sup>.

8. ITC also have a general priority action until 2030 which relates strongly to WP.1, a willingness from ITC of an enhanced support to automated vehicles, including continuation of amendments to the existing legal instruments and standards, and possible development of new agreement(s), both if necessary<sup>5</sup>.

### **Impact Assessment as a tool for WP.1 to support the ITC-strategy**

9. This document suggest WP.1 to implement the use of a known methodology named Impact Analysis to support the understanding of how WP.1 strive for fulfill the goals set by the ITC. An impact assessment is a structured process for considering the implications of proposed actions while there is still an opportunity to modify (or even, if appropriate, abandon) proposals. An impact analysis promotes more informed decision-making and contributes to better regulation when trying to deliver the full benefits of policies at minimum cost while respecting the principles of subsidiarity and proportionality. It can be applied at all levels of decision-making, from policies to specific projects and by this also in the WP.1 workflow.

10. An impact assessment process is about gathering and analysing evidence to support policymaking. It can verify the existence of a problem, identify its underlying causes, assess and show whether a WP.1 action is needed, and analyse the advantages and disadvantages of available solutions to support the ITC-strategy. Impact assessments are especially important for initiatives that are likely to have significant economic, environmental or social impacts on the society (as from the European Commission Better Regulation Guidelines<sup>6</sup>) according to the ITC tasks to WP.1 described below.

11. However, impact assessment is only an aid to decision-making and not a substitute for it. An impact assessment will also act as an history document, supporting forthcoming policy work and corresponding regulations and by this also enabling an efficient work within WP.1.

<sup>2</sup> ECE/TRANS/288/Add.2 table 1

<sup>3</sup> Target 3.6: "Reduce Road Injuries and Deaths" and 11.2 "By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons"

<sup>4</sup> ECE/TRANS/288/Add.2 table 2

<sup>5</sup> ECE/TRANS/288/Add.2 table 1

<sup>6</sup> European Commission Staff Working Document. Better Regulation Guidelines. Brussels, 7 July 2017 SWD (2017) 350

## **Many future challenges for WP.1 needing an analysis methodology**

12. As described above, many future challenges are for WP.1 as ITC so strongly have addressed WP.1 to support the ITC strategy. By this, a methodology for showing if and how WP.1 are doing so are needed to support WP.1 to fulfil its functions towards the ITC assigned tasks. Impact assessments can be a tool for this as an impact assessment also is able to show and value WP.1's link to the sustainability concept about goals 3.6 and 11.2 and ITC general priorities (see above). An impact assessment can also be used as a non-legal explanatory memorandum and by this be a document showing the rationale behind why and how WP.1 choose to do or why WP.1 did something, e.g. amendments to the 1949 and 1968 convention on road traffic, new resolutions, creating new agreements, cooperate with other WPs etc.

13. To be able to reflect upon different solutions for WP.1 to support the ITC-strategy as described in the background it is important to understand why it is a problem, know the magnitude and explain why and how it is a problem and how it relates to what is the WP.1 responsibility in the ITC-strategy. Below are suggestions of questions to be answered so all stakeholders are able to understand how the problem relates to the ITC-strategy. The process should have allowed for the identification of one (or more) preferred options and to describe how the final proposal is linked to the ITC-strategy. Below is a process which can be used as a checklist when doing an impact assessment in WP.1 to assess its support for the ITC WP.1 strategy, each step is explained below.

1. What is the problem and why is it a problem?
2. Why should WP.1 act?
3. What should be achieved?
4. What are the various options to achieve the objectives?
5. What are their impacts according to the responsibility for WP.1 in the ITC strategy and who will be affected?
6. How do the different options compare according to the responsibility for WP.1 in the ITC strategy (effectiveness, efficiency and coherence)?
7. How will monitoring and subsequent retrospective evaluation be organised?

## **What is the problem and why is it a problem?**

14. There can be different reasons why a change is needed. In this part of an impact assessment it is important to give the reader an opportunity to understand the reasons and the rationale behind the change needed and connect the change to the ITC strategy, the rationale need only to be understandable in a general and informative descriptive way. An impact assessment starts by verifying the existence of a problem, identifying who is affected, estimating the problem's scale, analysing its causes and consequences, and assessing its likelihood to persist in the absence of (further) WP.1 intervention. The answer to this question should give the working parties in WP.1 the information needed to decide whether there is a problem for which a response may be warranted. In this part of the process, it is important to use facts as to have a well-grounded evidence base problem formulation. The problem formulation should not contain any historical background, aim(s) or possible solutions.

## **Why should the WP.1 act?**

15. Having established the existence of a problem, its size and scale and the causes, the impact assessment analysis should verify whether states alone could resolve it sufficiently and whether the WP.1 has the competence and/or the legal basis, and would be best placed to do so. The answer to this question should give the WP.1 contracting parties the information needed to decide why and whether a response from WP.1 is needed.

## **What should be achieved?**

16. The aim in this part of the impact assessment is to describe what should be achieved, i.e. the supposed result in relation to support of the ITC-strategy. To gain understanding of how the problem can be reduced or to disappear it is important to formulate the aim as specific as possible. The more specific the aim is formulated, the easier to find solution to solve the problem and by this hopefully support the ITC strategy. A clear and a specific aim will also support the quality of forthcoming evaluations. The impact assessment should set out what WP.1 should achieve with a legal or non-legal intervention. The objectives of the action should be clearly identified, including the level of the ambition and the criteria against which alternative options would be compared and the possible success of any initiative assessed.

## **What are the various options to achieve the objectives?**

17. In this part of the impact analysis is it necessary to describe different potential measures to achieve the aim and how they will influence the ITC-strategy, including a zero-alternative. Alternatives which not are relevant can be described to visualize that they have been in mind, it is important to describe why some measures not are relevant. Potential measures for WP.1 can be no action (zero-alternative), distribute a request for information, cooperate with another working party, agency, or organization, prepare a presentation, create an informational paper, amend the consolidated resolution on road traffic (RE1), amend the consolidated resolution on road signs and signals (RE2), amend an existing convention, draft a new protocol, draft a new convention or others. These measures can be summarized in to zero-alternatives, none regulatory solutions and regulatory solutions.

18. One option can also be to do nothing, the non-legal zero-alternative. In order to strive for the ITC-strategy it is always not necessary to use legal measures to obtain the aim. It is by this important to consider if none regulatory solutions measure or another legal instrument can be used. Examples of none regulatory measures can be information, guidance, volunteer agreements, distribute a request for information, cooperate with another working party, agency, or organization, prepare a presentation, create an informational paper etc. If it is clear that no regulatory solution is the best alternative is it important to describe and explain why it is so. It is important to describe how the fulfilment of the ITC-strategy will be if nothing is done by WP.1. It is necessary to visualize if the problem will be the same, increase or decrease in the future if nothing is done. If possible is it preferable to quantify the complex of problem. If this is not possible, a qualitative description can then be used. It might in a later stage of the impact assessment be shown that the zero-alternative is the best solution and this will lead to a decision about not to do anything.

19. Regulatory solutions should be measures used as the last option if no other solutions will work. It is important to describe the needed regulatory solutions why they are needed to support the ITC-strategy and how they should be constructed for supporting the ITC-strategy as best as possible.

## **What are their impacts according to the ITC strategy and who will be affected?**

20. When analysing the consequences of the suggested options on the ITC-strategy it is important to analyse their consequences from a social economic perspective. This enables to choose the best alternative which most efficient can solve the problem and also fulfil the aim. In this part of the impact assessment it is important to analyse the feasibility, impact on the aim, other benefits, unintended consequences etc. Based on this analysis, it is supposed to give an answer to suggest of what is a preferred measure for WP.1 to support the ITC strategy. At the end of this process, the contracting parties in WP.1 should know to what extent different options would meet the ITC-objectives, with what benefits, at what cost, with what implications for different stakeholders, and at what risk of unintended consequences.

**How do the different options compare according to the ITC strategy (effectiveness, efficiency and coherence)?**

21. This part should present to the reader the solution which best promote the ITC-strategy from a WP.1 perspective. In this part is it important to summarize how the suggested WP.1 -solution support the ITC-strategy. Based on the assessment of the various impacts and their distribution across affected stakeholders, the impact assessment should compare the different options with regard to their effectiveness, efficiency and coherence towards the ITC-strategy, as well as their compliance with the proportionality principle. At the end of this process, the impact assessment should present the relevant information for WP.1 to make a choice and, where appropriate, suggest and/or decide about a preferred option.

**How will monitoring and subsequent retrospective evaluation be organised?**

22. Policy-makers and stakeholders, and WP.1 itself, need to be able to check if the decided WP.1-measure is on track, and the extent to which it is achieving its objectives to support the ITC-strategy, at what cost and with what benefits. To do so, one should start from a clear idea of how the situation should look like in the future if the initiative is successful and describe how to evaluate if this will be the situation further in time. Having the entire in mind, the impact assessment should identify monitoring and ex-post evaluation arrangements to track whether the policy measure actually delivers the intended results and to inform any future revisions of the policy. At the end of this process, the WP.1 and ITC should know how the measure will be monitored and evaluated, allowing for future adjustments whenever needed.

## **The need for the Global Forum for Road Traffic Safety (WP.1) to support the use of automated vehicles in road traffic by an amendment to the 1968 Convention on Road Traffic**

### **Example of a fictive but to some extent real impact assessment based on the explanatory memorandum of amending the article 34bis by Prof. Bryant Walker Smith -**

#### **What is the problem and why is it a problem?**

23. Autonomous vehicles offer immense promise to help the global community to meet the global road safety targets, especially the SDGs 3.6 and 11.2. Driver assistance technologies in today's motor vehicles are already helping to save lives and prevent injuries. A number of today's new motor vehicles have technology that helps drivers avoid drifting into adjacent lanes or making unsafe lane changes, or that warns drivers of other vehicles behind them when they are backing up, or that brakes automatically if a vehicle ahead of them stops or slows suddenly, among other things.

24. The continuing evolution of automotive technology aims to deliver even greater safety benefits and one day deliver automated driving systems (ADS) that can handle the whole task of driving when we don't want to or can't do it ourselves. Autonomous vehicles also have the potential to profoundly reshape cities in ways that we're just beginning to understand. This disruptive technology will not only affect urban policies around transportation, but it will also have major implications for land use, economic growth, and community development. Autonomous vehicles will also create a greater living space for humans in the cities, e.g. car parking spaces could be reduced by 70 percent, traffic lights will change or disappear, taxi fleets will be reduced, cars will teach us about human behaviour thanks to their ability to analyse driver behaviour and the urban environment. If implemented, the system could reduce car accidents, lessen driver stress, and offer a window into how drivers react with vehicles and each other.

25. A problem for implementing the future automated cars is that contracting parties in WP.1 take differing views on the current legal status of automated vehicles under the 1968 Convention on Road Traffic as well as under the provisions of the 1949 Convention on Road Traffic.

#### **Why should the WP.1 act?**

26. The different views within WP.1 delay the possibility for all countries to support the progress of automated vehicles in the same pace as other countries. The idea about using the 1968 Convention on Road Traffic as a tool for harmonization will by this not work as supposed and will hinder a harmonization of using and implementing automated vehicles in many countries. Currently the WP.1 remains the only permanent body in the United Nations system that focuses on improving road safety. Its primary function is to serve as guardian of the United Nations legal instruments aimed at harmonizing traffic rules that address the main factors of road accidents (road user behavior, vehicle and infrastructure) that is a tangible contributor to improved road safety. WP.1 is also the Forum in the world that can give an enhanced support to the development and implementation of automated vehicles, including continuation of amendments to the existing legal instruments and standards, and possible development of new agreement(s), both if necessary. The regulatory framework which WP.1 manage, the 1949 and 1968 Convention on Road Traffic and the 1968 Convention on Road Signs and Signals, is vital to equalize the possibility to all countries to implement automated vehicles in their territory and by this harmonize the use of them which will be beneficial for a more rapid introduction of automated vehicles.

## **What should be achieved?**

27. A better possibility for all countries to introduce the use of automated vehicles are needed. The regulatory situation today creates a divergence between countries on their possibility to allow the use of automated vehicles in their territory. If WP.1 do not act within their possibility to do so, it will over time create even greater disharmony between countries which will create a slower pace of implementation of automated vehicles than others, by this hinder harmonization and travelling between countries, create lower levels of road safety, slower economic development etc. To support the introduction of automated vehicles, changes are needed to the regulatory framework which WP.1 manage, especially the 1968 Convention on Road Traffic. If done so, the possibility to increase the pace of the development and introduction of automated vehicles will grow and the harmonization idea behind the 1968 Convention on Road Traffic can better then today be fulfilled.

## **What are the various options to achieve the objectives?**

28. Many countries share the view that the 1949 and 1968 Conventions on Road Traffic should be consistent with the responsible use of automated vehicles in road traffic. The Global Forum for Road Traffic Safety has already recognized the potential of automated vehicles to increase road safety,<sup>7</sup> and these conventions aim to “facilitate international road traffic and to increase road safety through the adoption of uniform traffic rules.”<sup>8</sup>

29. Under a long time, the question about how to allow countries to have the same opportunity to allow automated vehicles in their territories has been discussed in WP.1 and Informal Group of Experts on Automated Driving (IGEAD). Several countries in WP.1 has put forward the need for an amendment to 1968 Convention on Road Traffic as a temporary solution. Many countries believe an amendment to the 1968 Convention reflects a modest consensus and offers the most pragmatic path forward in the near term. An amendment could help all parties lawfully accommodate and regulate automated vehicles even without a uniform interpretation of the conventions. Indeed, an extended effort to resolve these differences in interpretation could frustrate other important discussions on issues related to automated driving. Accordingly, an amendment to the 1968 Convention on Road Traffic does not attempt to resolve these underlying differences. Instead, an amendment will seek to achieve a shared goal in a way that is at least acceptable to all the parties. This required avoiding statements or implications that were unacceptable to some parties even if they were favored by other parties.

30. These interpretive differences could lead to on-the-ground divergence among the parties. Certain forms of automated driving might be inconsistent with one party’s view of the 1968 Convention and yet consistent with another party’s view. Moreover, some proposals to address the former view risk undermining the latter view. These interpretive differences could stymie the pursuit of “uniform traffic rules.” They could also raise concerns that the international legal framework does not create a level playing field for parties interested in facilitating automated driving.

31. To temporary solve the problem that not all countries can allow automated vehicles in their territory, Belgium, Finland, France, Luxembourg, Portugal, Russian Federation, Sweden and Switzerland propose to amend Article 1 and insert a new Article 34bis of the 1968 Convention on Road Traffic to ensure greater levels of legal certainty due to increasing vehicle automation. The proposed amendment is described below.

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<sup>7</sup> [cite Global Forum for Road Traffic Safety (WP.1) Resolution on the Deployment of Highly and Fully Automated Vehicles in Road Traffic]

<sup>8</sup> [cite both conventions]



## I. Proposed amendments

### Article 1

#### Definitions

Add new paragraphs (ab) and (ac), to read:

“(ab) “Automated driving system” refers to a vehicle system that uses both hardware and software to exercise dynamic control of a vehicle on a sustained basis.

(ac) “Dynamic control” refers to carrying out all the real-time operational and tactical functions required to move the vehicle. This includes controlling the vehicle’s lateral and longitudinal motion, monitoring the road, responding to events in the road traffic, and planning and signalling for manoeuvres.

” Insert a new Article 34bis, to read:

### Article 34bis

#### Automated driving

The requirement that every moving vehicle or combination of vehicles shall have a driver is deemed to be satisfied while the vehicle is using an automated driving system which complies with:

(a) domestic technical regulations, and any applicable international legal instrument, concerning wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles, and

(b) domestic legislation governing operation.

The effect of this article is limited to the territory of the contracting party where the relevant domestic technical regulations and legislation governing operation apply."

32. The proposed amendment to the 1968 Convention reflects a modest consensus and offers the most pragmatic path forward in the near term. The proposed amendment could help all parties lawfully accommodate and regulate automated vehicles even without a uniform interpretation of the conventions. Indeed, an extended effort to resolve these differences in interpretation could frustrate other important discussions on issues related to automated driving. Accordingly, the proposed amendment to the 1968 Convention does not attempt to resolve these underlying differences.

33. Instead, this proposed amendment seeks to achieve a shared goal in a way that is at least acceptable to all the parties. This required avoiding statements or implications that were unacceptable to some parties even if they were favored by other parties. The authors identified six of these dealbreakers based on previous discussions within the Global Forum for Road Traffic Safety and then drafted around them to reach the proposed language.<sup>9</sup>

34. This proposed language accordingly ensures that parties to the 1949 and 1968 Conventions may choose to facilitate the responsible use of automated vehicles under conditions that are acceptable to them and that are consistent with the broader safety principles of the conventions. Importantly, the amendment expressly authorizes automated vehicles that, in the view of some parties, do not have traditional human drivers. Equally importantly, the amendment does not impose this particular interpretation of the original language on parties to either the 1968 Convention or the 1949 Convention.

35. The proposed amendment accomplishes this result by “deeming” the driver requirement to be satisfied under the conditions explained below.<sup>10</sup> This is a legal term of art. For a party that believes that automated vehicles are not consistent with the driver

<sup>9</sup> [cite IGEAD document]

<sup>10</sup> It is particularly important to stress that the final clause of the proposed amendment ensures that any domestic legislation is still in line with the principles of the Convention. In others words, as explained below, parties do not have completely free rein with respect to automated vehicles.

requirement, it is tantamount to an exception from that requirement. For a party that believes that automated vehicles are consistent with the driver requirement, it is tantamount to an endorsement of that belief. In either case, a party to the 1968 Convention can conclude that automated driving is lawful under this Convention, and a party to the 1949 Convention can maintain its conclusion that automated driving is lawful under this Convention.

36. Under the proposed amendment, a vehicle must be using an automated driving system. In other words, the automated driving system must be engaged or activated. As provided in the definitions, an automated driving system “carr[ies] out all the real-time operational and tactical functions required to move the vehicle.”<sup>11</sup> An advanced driver assistance system is therefore not an automated driving system. Rather, only level 3, 4, and 5 features represent automated driving.<sup>12</sup>

37. Unlike the Resolution on the Deployment of Highly and Fully Automated Vehicles in Road Traffic, this proposed amendment includes level 3 systems. The proposed language contains safeguards that will effectively require appropriate human availability during the use of these level 3 systems. In particular, the “deeming” provision applies only while the system is activated and—as noted below—the operation is subject to domestic legislation which in turn is subject to the safety principles of the Convention.

38. This automated driving system must comply with law related to vehicle design, which is typically the basis for type approval or self-certification. Some of this law may be domestic in origin, and “domestic legislation” is a term defined in the 1968 Convention.<sup>13</sup> Some may be international in origin, and “international legal instruments concerning wheeled vehicles, equipment and parts which can be fitted and/or used on wheeled vehicles” is a reference to the 1958 and 1998 agreements on technical regulations. The qualification that these instruments be “applicable” ensures that the requirements of a technical agreement apply only in countries party to it. The qualification also helps to ensure that parties can continue to authorize vehicles and vehicle systems that are not yet covered by these instruments or that have been excepted from requirements under these instruments.

39. Furthermore, operation of the automated driving system must be “governed by” domestic legislation. This language is similar in effect to language from earlier proposals but can be imported more easily and directly into some parties’ domestic legal frameworks. Domestic legislation could include a party’s general rules of the road; it need not be new or specific to automated vehicles. However, under this provision a party could also impose additional requirements on automated vehicles. For example, a party could specifically define the “driver” of an automated vehicle, could require every automated vehicle to have such a driver, and could impose specialized requirements on this driver. In this way, parties can continue to assign technical responsibilities for safe operation by allocating particular tasks to particular actors.

40. All this law—both domestic and international, and both design-oriented and operation-oriented—must be “consistent with the principles of the” 1968 Convention. “Principles” in this sense are broader and more abstract than the Convention’s individual provisions. The proposed amendment expressly notes that one of these provisions—the driver requirement—is deemed to be satisfied, and the proposed amendment’s reference to principles does not change this result. In short, this reference means that parties are to approach automated vehicles in a way that improves road traffic safety.

41. The proposed amendment would be added as a new article 34bis to the 1968 Convention. This article 34bis would be entirely distinct from existing article 34. Because the definitions of “automated driving system” and “dynamic control” pertain only to this new article 34bis, they would also be incorporated within it.

42. An earlier proposal included additional language to clarify that amendment of the 1968 Convention does not imply that the 1949 Convention requires a similar amendment.<sup>14</sup> As previously discussed, some authors have concluded that the 1968 Convention requires an

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<sup>11</sup> [cite the two definitions]

<sup>12</sup> [cite SAE J3016]

<sup>13</sup> [cite 1968]

<sup>14</sup> [cite IGEAD document]

amendment for the purpose of automated driving, and some authors have concluded that neither the 1968 nor the 1946 Convention requires an amendment. There was concern that any amendment of the 1968 Convention could undermine this latter conclusion. However, the authors ultimately concluded that the proposed amendment is consistent with this conclusion and therefore should not and will not constrain the interpretation of the 1949 Convention.

43. Finally, the Global Forum on Road Traffic Safety is currently taking steps to draft a new convention that is specific to automated driving.<sup>15</sup> The proposed amendment to the 1968 Convention is consistent with this effort. Even if a party to the 1968 Convention ratifies a new automated driving convention, it will still have obligations under the 1968 Convention vis-à-vis any parties that have not ratified the new convention. For this reason, it is important that parties to the 1949 and 1968 Conventions can satisfy themselves that these conventions are consistent with automated vehicles. This is the intent of the proposed amendment.

### **The impact according to the ITC strategy and who will be affected?**

44. **A major role and task for WP.1 is by the ITC strategy to strive to support the sustainability goals, in particular target 3.6: "Reduce Road Injuries and Deaths" and 11.2** "By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons". An important task for WP.1 is also to enhance the support to the implementation and use of automated vehicles.

45. This impact assessment includes suggested amendment to the 1968 Convention on Road Traffic and the rationalities behind the amendment with relation to the 1949 and 1968 conventions. This amendment proposal will probably positively affect the UN SDGs targets 3.6 and 11.2 and especially the world wide implementation of automated vehicles, some examples from of the positive and negative effect in line with the ITC-strategy are described below.

#### **Safety**

46. It is especially the road safety aspect which are discussed regarding automated vehicles and the safety benefits of automated vehicles when fully implemented are accepted to be paramount. Automated vehicles' potential to save lives and reduce injuries is rooted in one critical and tragic fact: 94% of serious crashes are due to human error. Automated vehicles have the potential to remove human error from the crash equation, which will help protect drivers and passengers, as well as bicyclists and pedestrians. As an example considering more than 36,560 people died in motor vehicle-related crashes in the United States in 2018, it is possible to grasp the lifesaving benefits of automated vehicles.

#### **Economic and societal benefits**

47. Automated vehicles could deliver additional economic and additional societal benefits. A NHTSA study showed motor vehicle crashes in the U.S. in 2010 cost \$242 billion in economic activity, including \$57.6 billion in lost workplace productivity, and \$594 billion due to loss of life and decreased quality of life due to injuries. Eliminating the vast majority of motor vehicle crashes could erase these costs, both in the United States but also in the rest of the world.

#### **Efficiency and convenience**

48. There are a risk that automated vehicles can increase the traffic volume by increased use of cars due to the possibility for the driver to perform other duties then driving when using the car (reading, participate in meetings, sending mails etc.). The number of cars on roads and streets can also increase by the fact that fuel- and insurance costs will decrease.

<sup>15</sup> [cite draft TOR]

49. Roads filled with automated vehicles will also cooperate with each other to smoothen the traffic flow and reduce traffic congestion, as an example will automated vehicles be able to drive in higher speeds and with shorter distances between each other than today, estimating a five doubled capacity on specific road types when vehicles can be driven in platooning. According to NHTSA, Americans spent an estimated 6.9 billion hours in traffic delays in 2014, cutting into time at work or with family, increasing fuel costs and vehicle emission. With automated vehicles, the time and money spent commuting could be put to better use, [automated vehicles could free up as much as 50 minutes each day](#) in the United States that had previously been dedicated to driving.

### **Mobility**

50. Automated vehicles may provide new mobility options to millions more people around the world. Automated vehicles can increase the accessibility to the transport for groups of road users which today are not able or allowed to drive a car, especially when using level 4 automated vehicles. However even level 3 automated vehicles can increase mobility for people who today not are allowed to drive a car due to different disabilities. While its full societal benefits are difficult to project, the transformative potential of automated vehicles and their driver assistance features can also be understood by reviewing countries demographics and the communities these technologies could help to support. As an example from United States, today there are 49 million Americans over age 65 and 53 million people have some form of disability. In many places across the country employment or independent living rests on the ability to drive. Automated vehicles could extend that kind of freedom to millions more. One study suggests that automated vehicles could create [new employment opportunities for approximately 2 million U.S people with disabilities](#).

### **How do the different options compare according to the ITC strategy (effectiveness, efficiency and coherence)?**

51. The suggested amendment is a product of a long time effort and iterative discussions in both IGEAD and WP.1. This impact assessment is only from the suggested (and only) amendment solution to harmonize the use of automated vehicles. By this have no other analysis been made about different options compare to each other in relation to the ITC-strategy.

### **How will monitoring and subsequent retrospective evaluation be organized?**

52. The retrospective evaluation will assess the degree to which the goal is met, in this case if the 1968 Convention are amended as described above. The evaluation might also be about the process from the start of the development work to the final amendment decision in WP.1. This will enable to suggest changes to future developments in the WP.1 so that Forum even better can support the fulfillment of its part in the ITC-strategy.

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