

## CIVIL ASSOCIATION ANTI-NOISE ENVIRONMENTAL MONITOR

"One day humanity will have to fight against noise pollution as it fought plague and cholera." Robert Koch, Physician and Nobel Prize in Medicine

**Dear Director - World Forum for Harmonization of Vehicle Regulations – W.P 29**

1. Our Anti-Noise Environmental Monitor Association focuses on sound environmental education, acoustic environmental sustainability, promoting acoustic efficiency and controlling the emission of environmental noise.

2. For this reason, we are contacting you as following.

3. The United Nations has the Economic Commission for Europe, called *Economic Commission for Europe of the United Nations* – UNECE.

4. This Commission decides on technical vehicle standards, through the so-called WP 29 group. In addition to technical vehicle safety standards, there are standards on **noise emission control**. Vehicles are classified by categories: cars, motorcycles, trucks, buses, etc.

5. Well, the “Regulation” n° 51.03 of the Economic Commission for Europe of the United Nations – UNECE provides for norms of vehicle engines and noise emission.

6. Now, this Regulation n. 51.03 maintains a polluting status quo of passenger bus engines, by allowing the emission of noise in the range of 76 dB (seventy-six decibels) to 73 dB (seventy-three decibels).

7. According to guidance from the World Health Organization, noise above 50 dB (fifty decibels) causes damage to health, a topic detailed further ahead.

8. Regulation no. 51.03 on noise emission standards by bus engines is contrary to Resolution n. 76, of 2022, of the United Nations , which

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guarantees the right to a clean, healthy and sustainable environment, a topic also detailed ahead.

9. And yet, Regulation no. 51.03, by maintaining a standard of acoustic inefficiency for passenger transport bus engines, is totally contrary to industrial innovation and acoustic environmental sustainability policies.

10. Regulation no. 51.03 of the United Nations Economic Commission for Europe - UNECE even influenced Brazil, which approved, through National Council for the Environment, Resolution n. 490, of November 16, 2018

11. In 2018, the National Council for the Environment approved Resolution n. 490, of November 16, 2018, which establishes the PROCONVE P8 phase of requirements of the Air Pollution Control Program for Motor Vehicles - PROCONVE for the control of polluting gas emissions and noise for heavy motor vehicles for road use and **other measures**".

12. Well, noise from passenger transport buses and school buses cause the degradation of environmental quality and, consequently, the quality of life.

13. Noise and environmental noise pollution impact the urban environment, the residential environment, the work environment, the school environment, the hospital environment, among others.

14. The World Health Organization reports that noise above 50 dB (fifty) decibels causes damage to environmental health, hearing health, mental health, occupational health, etc.

15. **Therefore, there is the first incompatibility between Regulation 53.01 of the United Nations Economic Commission for Europe and the guidance of the World Health Organization of the maximum limit of 50 dB (fifty decibels), for the protection of health, here physical health, physiological health, mental health, occupational health, environmental health among other aspects.**

16. In 2022, the UN published Resolution No. 76 on the right to a clean, healthy and sustainable environment.

17. **Here, there is the second incompatibility between Regulation no. 53.01 of the United Nations Economic Commission for Europe and**

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**UN Resolution No. 76/2022 which guarantees the right to a clean, healthy and sustainable city, free of noise pollution.**

18. The UN has the sustainable development goals: health and well-being (goal 3), quality education (goal 4), decent work (goal 8), industry, innovation and infrastructure (goal 9), sustainable cities and communities (goal 11), responsible consumption and production (goal 12).

19. Hence, the third **incompatibility between Regulation 53.01 of the United Nations Economic Commission for Europe and the UN's sustainable development goals.**

20. However, **Regulation 53.01 of the Economic Commission of the United Nations for Europe legitimizes a standard of acoustic inefficiency for passenger transport buses.**

21. **Regulation 53.01 of the Economic Commission of the United Nations for Europe goes against the grain of environmental protection, innovation, environmental sustainability and acoustic efficiency policies.**

22. **Noise pollution from buses runs counter to the values of health, well-being, decent work, innovation in industry and infrastructure, sustainable cities and communities, and responsible consumption and production.**

23. **Fifth incompatibility. A Regulation no. 53.01 of the United Nations Economic Commission for Europe goes against the initiative of the European Union Environmental Agency to eliminate environmental noise pollution.**

24. **There are progressive targets to reduce at least 30% (thirty) percent of noise in the transport sector. There, the maximum limits for noise are 45 dB (forty-five decibels) at night and 55 dB (fifty-five decibels ) during the day.**

25. The Organization for Economic Co-operation and Development deals with the subject in the study **How's life ? 2020. Measuring wellness** . Also, the study shows that subjective well-being is an indicator of quality of life.

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26. Scientific research points to the loss of quality of life and health, because of noise and environmental noise pollution.<sup>1</sup>

27. The principle of environmental sustainability requires innovation policies regarding the quality and acoustic efficiency of products, that is, to promote eco-efficiency, eco-quality and eco-sustainability of products and services.

28. This principle prohibits the manufacture of environmentally unsustainable vehicles. Thus, it is an optimization mandate for the production of acoustically eco-efficient vehicles.

29. A bus with noise emission power is an inefficient, defective, zero quality product. Well, an eco-efficient bus, with eco-quality, acoustically it should not produce noise. Noise is toxic waste from machines, equipment and tools that pollute the environment. Noise is harmful to human life and health, environmental health, occupational health, mental health and emotional health.

30. As mentioned, according to the World Health Organization, noise above 50 dB (fifty) decibels causes damage to health. For this reason, health protection regulations must be respected when manufacturing buses. The lack of acoustic quality of passenger transport buses is capable of causing serious damage to fundamental rights to life, quality of life, health, well-being, peace, rest, privacy, private life, acoustic home inviolability, work, the culture of stillness, among others.

31. Also, scientific evidence points to the biological effects caused by noise pollution and the risks to people's health. See: World Health Organization, Regional Office for Europe. **Biological mechanism related to cardiovascular and metabolic effects by environmental noise**, per Charlotte Eriksson and others. See: **Burden of disease from environmental noise. Quantification of healthy life years lost in Europe**, World Health Organization, European commission. See also: European Environmental Agency: **Projected health impacts from**

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<sup>1</sup>European Commission, **Assessment of potential health benefits of noise abatement measures in the EU**, March 2021. See also: **Burden of disease from environmental noise. Quantification of healthy life years lost in Europe**.

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**transportation noise – exploring two scenarios for 2030** , Nuria Blaneas et al., ETC-Report 2022.

32. On the quantification of healthy life years lost in Europe due to environmental noise, see: **Burden of disease from environmental noise** , World Health Organization , Regional Office for Europe , 2011. See also : **Review of evidence relating to environment noise exposure and annoyance, sleep disturbance, cardiovascular and metabolic health outcome** in the context of Interdepartmental Group on Costs and Benefits Noise Subject Group, from the National Institute for Public Health and the Environment, Ministry of Health, Welfare and Sport of the Netherlands , 2019. See : **Environmental Noise Guidelines for the European Regional, World Health Organization, Regional Office for Europe**. See: **Environmental noise in Europe, 2020, European Environment Agency**. To see **Noises, biases and mismatches. Emerging issues of environment concern** . UN: environment programme , Frontiers, 2002. See also : European Commission , **Assessment of potential health benefits of noise abatement measures in the EU** , March 2021. See : **Healthy environment, healthy lives : how the environment influences health and well-being in Europe** , European Environment Agency, 2019.

33. Thus, the production of buses above 50 dB (fifty) fifty decibels must be considered a practice contrary to the norm for the protection of environmental quality and environmental health.

34. In addition, there is the issue of protecting the health of special groups such as people with cognitive and auditory neurodiversity .

35. For example, people with autism spectrum disorder are auditory hypersensitive.

36. Elderly people are also more sensitive to noise and more impaired in their hearing due to noise.

37. Also, considering the environmental law, there are the principles of prevention of environmental damage, precaution of environmental damage, prohibition of environmental retrogression, duty of environmental progressivity. For this reason, these environmental principles demand respect for the

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acoustic environmental quality and demand the effective control of noise emissions from passenger transport buses.

38. Now, noise is not natural, it is the residue of artificial products. They are a mechanical anomaly, derived from acoustic inefficiency.

39. The natural environment is usually quiet, approximately between 30 dB (thirty decibels) to 40 (forty decibels). Therefore, noises above these natural standards are considered contrary to the natural environment.

40. And considering the protection of health and animal welfare, protective measures are needed to control the environmental noise pollution caused by passenger transport buses.

41. The Organization for Economic Co-operation and Development released the paper **Engaging citizens in innovation policy**, in June 2023. The study highlights the importance of citizen participation in the formulation and execution of innovation policies, in the modeling of science and technology programs.

42. Citizen engagement is seen as an essential contribution to institutions and the private sector. The participation of citizens and civil society organizations has a lot to contribute to innovation, science and technology policies. With greater citizen participation, there is an increase in the quality of innovation policy and its dissemination.

43. Citizenship can contribute to the innovation strategy and agenda, the definition of the schedule, the intelligence of the procedures and the execution of the innovation policy.

44. For this reason, proper communication with citizens regarding innovation policy is important. Citizens' assemblies are being organized to debate and propose measures to face climate change and global warming: Citizen's Convention on Climate, Climate Assembly UK, Global Warming, Finland's citizen's Jury on climate action, Smart City initiative of Parma (Italy), Natural Environment Research UK Council.

45. Citizen participation in environmental issues is fundamental. Only with coordinated action will it be possible to advance in effective actions to face the environmental crisis.

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46. In the European Union there are several initiatives to democratize access to science and technology for citizens. The democratization of scientific knowledge, access to technologies and innovation is the path to sustainable development. For this reason, for example, the technological empowerment of citizens is necessary for them to participate in innovation policy and environmental policy application.

47. Also, in the European Union there are several regulations on industrial quality, aiming to guarantee health and safety, see: Directive 2006/42/EC of the European Parliament and the Council of 17 may 2006 on machinery . Also, there are rules on ecodesign requirements for the manufacture of sustainable products.<sup>2</sup>

48. The mobilization and engagement of the global citizenry is a powerful force in the fight against the climate crisis and the noise and environmental noise pollution epidemic. In particular for industrial innovation that is committed to the manufacture of sustainable, acoustically eco-efficient products . Smart, healthy and sustainable cities need sustainable environmental citizenship.

49. Also, the industry must be in line with Resolution No. 76, of 2022, of the UN that guarantees the right to a clean, healthy and sustainable environment, which includes the right to an environment free of mechanical noise and noise pollution.

50. In short, the passenger bus manufacturing industry is linked to respect for the right to environmental quality and the right to residential quality, the right to a quality work environment, free from mechanical noise and noise pollution.

51. The principle of environmental sustainability demands the updating of ethical norms for the industrial design of passenger buses.

52. It is urgent that industrial innovation and commitment to acoustic efficiency and acoustic environmental sustainability.

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<sup>2</sup>European Commission, Brussels, 30.3.2022, Proposal for a regulation of the European Parliament and the Council establishing a framework for setting ecodesign requirements for sustainable products. See also Brazil – European Union Cooperation Booklet – Exchange on health and safety at work, conformity assessment of machinery safety system components in Brazil.

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53. Industrial products cannot cause environmental noise degradation in cities. However, defective products are capable of killing, causing illness, accidents, among other aggravating factors.

54. **About The eco-efficiency , see : World Business Council for sustainable development. Eco-efficiency. Learning module. Five Winds International.**

55. There are therefore serious risks to public health, environmental health and mental health from noise and noise pollution from defective buses, with sound emission power above 50 dB (fifty decibels).

56. For this reason, it is necessary for industrial innovation to adopt total environmental quality management programs, with norms, quality standards, protocols and standards linked to acoustic environmental sustainability.

57. Thus, the need arises for an Environmental Code of Ethics for the industrial design of products with acoustic emission power. This Code shall apply to the passenger transport bus sector.

58. The **passenger bus manufacturing industry** must adopt an environmental code of ethics to produce quieter vehicles.

59. In addition to the environmental aspect, the regulation of noise on passenger transport buses is a need for public health, environmental health and mental health. Noise causes harm to human health.

60. Also, noise compromises the health and well-being of animals. Hence, the need for healthier environmental practices in the design of industrial products. The healthy environment provides healthy lives, unlike the polluted environment produces disease and death.<sup>3</sup>

61. The Organization for Economic Cooperation and Development points to studies on the responsible business conduct policy.<sup>4</sup>

62. Here is the opportunity for the passenger transport bus industry to adopt standards of environmental responsibility, to avoid environmental

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<sup>3</sup>See: European Environment Agency. **Healthy environment, healthy lives: how the environment influences health and well-being in Europe** , EEA Repot n. 21/2019.

<sup>4</sup>OECD. **OECD Studies on Responsible Business Conduct Policy** , 2022.



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damage and the commitment to several fundamental rights, with the reduction of noise emissions.

63. Under debate, there is the issue of environmental noise pollution and noise caused by buses in the collective passenger transport system in cities.

64. Scientific studies show the damage to health caused by air pollution caused by transport systems.<sup>5</sup> See: World Health Organization, Regional Office for Europe. **Biological mechanisms related to cardiovascular and metabolic effects by environmental noise**, per Charlotte Eriksson and others. See: **Burden of disease from environmental noise. Quantification of healthy life years lost in Europe**, World Health Organization, European commission. See also: European Environmental Agency: **Projected health impacts from transportation noise – exploring two scenarios for 2030**, Nuria Blaneas et al., ETC-Report 2022. See: **Transport Noise. How it affects our health and wellbeing**. Institute of Acoustics. And Blanes, Nuria. **Projected health impact from transportation noise – exploring two scenarios for 2030**, European Environmental Agency.

65. **The European Union Environmental Agency has targets to eliminate and reduce noise and noise pollution from transport systems. The zero pollution action plan includes measures to reduce transport noise by 2030. The goal is to reduce 30% (thirty) percent of transport noise by 2030.**<sup>6</sup>

66. Currently, the noise emission limit, according to the World Health Organization for streets, avenues and roads is 53 dB (fifty-three decibels) for the day. During the night, the limit is 45 dB (forty-five decibels). For the European

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<sup>5</sup>See: **Burden of disease from environment noise. Quantification of healthy life years lost in Europe**, World Health Organization, World Health Organization, European Commission. Blanes, Nuria and others. **Projected health impacts from transportation noise – exploring two scenarios for 2030**, European Environmental Agency, 2022. See also: **Environmental noise in Europe – 2020**, European Environmental Agency. Also, see: Charlotta Eriksson et al., **Biological mechanisms related to cardiovascular and metabolic effects by environmental noise**, World Health Organization, Europe. **E Environmental Noise Guideline for the European Region**, World Health Organization. See: **Healthy environment, healthy lives: how the environment influences health and well-being in Europe**, European Environmental Agency, 2019.

<sup>6</sup>See European Environmental Agency, [www.eea.europa.eu](http://www.eea.europa.eu)

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Environment Agency the noise limit on streets, avenues and roads is 55 dB (fifty-five decibels) for the day. For the night, it is 50 dB (fifty decibels).<sup>7</sup>

67. In the environmental cooperation agreements of the European Union called *Green City Accord* is in the ranking of environmental sustainability there is the noise factor as an indicator. There is consideration of the risks of the population exposed to noise greater than 55 dB (fifty-five) decibels during the night.<sup>8</sup>

68. To be considered a clean, healthy and sustainable city, there must be control of noise pollution. Public passenger transport systems cause damage to the environment and to environmental health and people's health. For this reason, it is the obligation of the public authorities to adopt all measures to eliminate, reduce and isolate noise and noise pollution from public passenger transport buses. There is harm to passengers, transport users. There are damages on workers of transport companies. And there is damage to the nearby community where the buses circulate and to residents neighboring the bus terminals. There is an expectation that electric buses can be the solution to the serious problem of air pollution and noise pollution.

69. For this reason, it is urgent to accelerate electric mobility programs for the collective passenger transport system in cities. A legal instrument to dissuade noise polluters is for the public authorities to impose anti-noise environmental fees on public transport companies that cause environmental degradation in cities.<sup>9</sup>

70. Another regulatory option is for the government to impose environmental compensation measures for the environmental damage caused, with obligations to restore the natural environment, free of noise. Finally, it is urgent that cities are mobilized by citizens for the movement of clean, intelligent, healthy and sustainable transport.

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<sup>7</sup>See: Blanes, Nuria and others. **Projected health impacts form transportation noise – exploring two scenarios** for 2030. The document also points out the limits for air and rail transport during the day and night.

<sup>8</sup>European Commission, **Green city accord. Clean and Healthy cities for Europe. GCA** mandatory indicators guidebook, 29 April 2022.

<sup>9</sup>See: **Can polluter pays policies in the buildings and transport sectors be progressive ?** Institute for European Environmental Policy, March 2022.

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71. It is clear that noise from equipment, machines, products and services damages the right to life, the right to quality of life, right to residential environmental quality, right to health, right to comfort and well-being, right to property, right to housing, right to acoustic home inviolability, among others.

72. Likewise, mechanical noise violate the principles of prevention of environmental damage, precaution of environmental damage, prohibition of environmental backlash. It is also necessary to enforce the polluter-pays principle by imposing environmental charges on acoustic polluters, manufacturers of passenger transport buses that pollute acoustically.

73. In summary, it is fundamental that consumers, users and companies have better expectations of quality and acoustic performance of equipment, machines, tools, to demand better eco-efficient environmental practices from the industry .

74. New acoustic design of passenger transport bus must be adopted for the quality of acoustic performance and acoustic efficiency. Here, it is time for industrial innovation committed to environmental and social innovation.

75. Several passenger transport bus industries manufacture acoustically inefficient products. A vicious cycle of dependence on inefficiency was created , as cheaper products are more profitable, even though they are defective.

76. Lack of competitiveness and quality is a factor of stagnation of industrial production. Noise is a mechanical anomaly and a symbol of industrial underdevelopment. These noisy machines cause environmental degradation. For this reason, industrial innovation committed to environmental innovation and the offer of acoustically eco-sustainable products is urgent .

77. The author Frederick J. Kiesler , when addressing the technological environment, describes the steps of the arc of the journey from the deficiency of products, with old standards, until reaching efficiency with the adoption of new standards, describes the challenge of the arc of the journey from inefficiency to the efficiency of standards . He highlights the importance of defining design and

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biotechnology , that is, technology at the service of life. Design of biotechnical standards serve to ensure the quality of life.<sup>10</sup>

78. The passenger bus industry needs to commit to acoustic environmental sustainability and the principle of acoustic efficiency.

79. Eco -efficiency is a goal to be achieved by the industry, using industrial innovation to ensure environmental innovation, that is, the manufacture of better and environmentally sustainable products.<sup>11</sup>

80. It is necessary to engage the industry with acoustic environmental ethics Currently, there is a standard of acoustic inefficiency of products, something harmful to consumer rights and environmental rights.

81. On ethical disengagement from the industry, see: Bandura , Albert. Preventing ecological sustainability through selective moral disengagement. in Moral disengagement. Theory and research from social cognitive theory in Bandura , Albert et al. Campinas: Mercado das Letras, 2015.

82. There is an urgent need for a new ecodesign for the acoustic eco-efficiency of buses for the purposes of environmental innovation, with a commitment to acoustic environmental sustainability. It is unacceptable to allow buses to be sources of noise pollution.

83. Society has the right to environmental quality and, therefore, the right to acoustic environmental sustainability. Environmental principles of prohibition of environmental setback, prevention of environmental damage, precaution of environmental damage and polluter pays. These environmental principles demand new practices from industries and their commitment to the acoustic efficiency of equipment, machines and tools and, respectively, to acoustic environmental sustainability.

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<sup>10</sup>Kiesler, Frederick J. **On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design**

<sup>11</sup>See: **Eco-efficiency. Learning module** . Word Business Council for Sustainable Development and Tibbs, Hardin. Industrial Ecology. An environmental agenda for industry, Global Business Network, 1993.

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84. It is essential to engage competent authorities and citizens to adopt better environmental practices on the issue of acoustic environmental sustainability, imposing the necessary accountability of acoustic polluters.

85. It is urgent that we overcome the antisocial, insane, inefficient and unsustainable mechanistic model of mechanical noise.

86. New norms, total environmental quality standards, acoustic efficiency, acoustic environmental sustainability protocols are necessary to have a clean, healthy and sustainable industry and services.

### **Acoustic environmental sanitation service**

87. It is necessary to recommend as a new kind of environmental sanitation service the public sound cleaning service, that is, to guarantee the quality of the urban environment and sound environmental health, free of mechanical noise and noise pollution. It would be a new category of environmental sanitation service.

88. Well, if a garbage collection and treatment service is mandatory, why not a sound cleaning service in cities?

### **Principle of acoustic environmental efficiency as a fundamental core of environmental policy.**

89. The principle of acoustic efficiency is based on good management practices for total environmental quality.<sup>12</sup> Also, in principles of environmental sustainability. Currently, there are practices to extend producer responsibility, because of waste production and environmental sustainability.<sup>13</sup> Thus, practices of environmental responsibility are fundamental for the industrial product, with acoustic emission power.

90. To avoid noise and environmental noise pollution, the principle of acoustic efficiency is necessary to eliminate, reduce and isolate noise from passenger transport buses. The principle of efficiency is a mandate to optimize the

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manufacture, distribution, use and consumption of products. This principle demands eco-innovation to guarantee industrial acoustic quality in the manufacture of equipment, machines and tools. The best way to combat noise pollution is to directly attack the source of noise production, that is, the polluting objects.

91. The principle of acoustic efficiency is derived from the right to an ecologically balanced and healthy environment, the right to clean, healthy and sustainable cities, the principle of environmental sustainability, the prohibition of environmental retrogression, the prevention of environmental damage, the precaution of environmental damage, the duty of environmental progressivity . There is a duty of industrial innovation to meet the principle of acoustic efficiency. The principle of acoustic efficiency also stems from the principle of administrative efficiency, which is binding on public administration.

92. In effecting the right to a clean, healthy and sustainable environment, it must promote and incorporate the principle of acoustic efficiency for machinery, equipment, tools and services.

93. Therefore, measures must be adopted to encourage industrial innovation in favor of acoustic efficiency and environmental sustainability.

94. Therefore, it is the responsibility of the public power to establish the innovation policy, applicable to environmental innovation, industrial innovation, legal innovation, social innovation, among others. There is a duty of continuous improvement of environmental quality.

95. Measures must be taken to encourage industrial innovation in favor of acoustic efficiency and environmental sustainability.

96. And, in addition, the principle of acoustic efficiency is ordered according to the protection of environmental health and public health.

97. In summary, we can only have a clean, healthy and sustainable environment if we have better standards of acoustic environmental quality and acoustic efficiency of equipment, machines, tools, products, services and vehicles.

### **Proposals to ensure acoustic environmental quality**

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98. The **World Forum for Harmonization of Vehicle Regulations – W.P 29** could RECOMMEND more precise and exact environmental norms regarding the standard of acoustic environmental quality and environmental health, for the control of the noise emission of buses of the transport of passengers in the cities.

99. The **World Forum for Harmonization of Vehicle Regulations – W.P 29**

could RECOMMEND a system for monitoring acoustic environmental quality.

100. The **World Forum for Harmonization of Vehicle Regulations – W.P 29** would RECOMMEND compliance with the standards of the World Health Organization, which consider that noise above 50 (fifty) decibels are considered harmful to health and apply this maximum limit of health protection in relation to the control of noise emission from buses for transporting passengers in cities

101. The **World Forum for Harmonization of Vehicle Regulations – W.P 29** could endorse and disseminate technological innovations aimed at promoting acoustic efficiency. And also promote acoustic environmental sustainability for smart, healthy and sustainable city programs.

102. The **World Forum for Harmonization of Vehicle Regulations – W.P 29** could adopt acoustic environmental education campaigns to alert the population about the risks arising from environmental noise.

103. The **World Forum for Harmonization of Vehicle Regulations – W.P 29** could endorse the upgrading of quality standards and acoustic efficiency of passenger transport buses in cities. And democratize access to technical standards, as well as popularize acoustic efficiency standards among the population.

104. Finally, it is urgent to insert the theme of the principle of acoustic efficiency, sound environmental education and sound environmental sustainability in the agenda of the bodies responsible for environmental regulation and related technical standards.

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105. Finally, there are several scientific evidences that show the causal link between noise, environmental noise pollution and risks to public health, environmental health, occupational health, mental and emotional health.

106. For these reasons, it is necessary to update industrial quality practices in favor of acoustic innovation, prioritizing environmental quality, protection of public health and environmental health, quality of life, well-being and peace of mind of the population.

107. It is essential that the bus industry adopt acoustic environmental governance practices in the manufacture of its products.

108. Now, the noise of buses transporting passengers in cities harms fundamental rights: the right to quality of life, the right to private life, the right to privacy, personality rights, the right to the environment, the right to quality of the residential environment, the right to acoustic home inviolability, the right to quality work environment, the right to physical, auditory and mental health, the right to rest, the right to acoustic comfort and well-being, the right to work, the right to a culture of stillness, among others.

109. Passenger transport bus industries need to adopt new innovation standards for quality and acoustic efficiency, committing themselves seriously with practices to promote acoustic environmental sustainability.

110. In the 21st century, mechanically and acoustically inefficient technologies that cause environmental degradation are no longer acceptable.

111. Another aspect is that these products with defective acoustic design cause damage to the urban environment as they generate noise and environmental degradation.

112. Thus, the industry must be environmentally responsible against products that are harmful to environmental health and public health.

113. In view of the above, this measure, considering the right to environmental quality, right to quality of life, quality of the urban environment, quality of the work environment, quality of the residential environment, principle of environmental sustainability, the principle of environmental acoustic efficiency, the principle of the prohibition of environmental retrogression, the protection of public



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health, environmental health, hearing health, mental health, comfort and well-being, home inviolability of the acoustic space, serves to request :

A. That the **World Forum for Harmonization of Vehicle Regulations – W.P 29** advise the United Nations Environmental Commission to update the norms, standards of environmental quality and industrial acoustic quality of passenger transport buses and school buses in cities, as well as procedures for certification of the acoustic environmental quality of these vehicles, in compliance with the clean, healthy and sustainable environmental right in the form of Resolution n . 76, of 2022, respecting the limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period;

B. That the **World Forum for Harmonization of Vehicle Regulations – W.P 29** recommend the establishment of norms to improve the environmental performance of the industrial design of passenger transport buses and school buses, in terms of noise emission control, for acoustic ecodesign, acoustic eco-efficiency, eco - quality , acoustic eco - sustainability ; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period, as recommended by the World Health Organization;

C. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** recommend the adoption of acoustic environmental efficiency seals/labels for passenger transport buses and school buses in cities, with emissions lower than 50 dB (fifty decibels);

D. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** act in coordination with stakeholders to promote standards of eco-innovation , eco-acoustic design , eco-acoustic efficiency , acoustic eco-sustainability in the manufacture of passenger transport buses and school buses in cities; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period, as recommended by the World Health Organization'

E. That the **World Forum for Harmonization of Vehicle Regulations – W.P 29** carry out campaigns for acoustic environmental education for

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industry, with the aim of promoting acoustic environmental sustainability and acoustic quality and efficiency of industrial products, in the case of passenger transport buses and school buses in cities; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period, as recommended by the World Health Organization;

F. That the **World Forum for Harmonization of Vehicle Regulations – W.P 29** inform citizens and consumers about the industrial acoustic quality standards and acoustic eco-efficiency of passenger transport buses and school buses in cities, respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the during the day and 45 dB (forty-five decibels) during the night, as recommended by the World Health Organization;

G. That the **World Forum for Harmonization of Vehicle Regulations – W.P 29** act, in coordination with the transit agencies of the countries, to reduce environmental noise caused by passenger transport buses and school buses in cities; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period; according to guidance from the World Health Organization;

H. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** act, in coordination with the bodies of the work agencies of the countries, to improve the environmental quality of the work environment, free of noise from passenger transport buses and school buses in cities; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period, as recommended by the World Health Organization;

I. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** act, in coordination with the Health agencies of the countries, to alert consumers about risks to hearing health, physiological health, mental health, occupational health, environmental health, arising from noise from passenger transport buses and school buses, greater than 50 (fifty) decibels, as recommended by the World Health Organization; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period; according to guidance from the World Health Organization;

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J. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** - UNECE work with the tax authorities of the countries to study the feasibility of anti-noise environmental taxes and incentive laws for clean, healthy and sustainable technologies;

K. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29**- UNECE act in collaboration with cities for the acoustic environmental sustainability of public transport systems for passengers and school buses; respecting the bus noise emission limit of 53 dB (fifty-three decibels) for the daytime period and 45 dB (forty-five decibels) for the night period, as recommended by the World Health Organization;

L. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** - UNECE in collaboration with cities to carry out acoustic environmental sanitation services, that is, acoustic cleaning services in cities;

M. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** - UNECE work in collaboration with cities to draw up an environmental noise management map to control noise emissions from passenger transport buses;

M. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** - UNECE encourage cities to adopt technological innovations for monitoring acoustic environmental quality;

l. That The **World Forum for Harmonization of Vehicle Regulations – W.P 29** - UNECE encourage cities to adopt anti-noise environmental fees to fund the exercise of anti-noise environmental police power, in relation to buses for collective passenger transport.

Best regards.

Curitiba, August 7, 2023.

Ericson Meister Scorsim

Founder and CEO

Anti-Noise Environmental Monitor Civil Association