TECHNICAL UNIVERSITY OF CLUJ-NAPOCA

ACTA TECHNICA NAPOCENSIS

Series: Applied Mathematics, Mechanics, and Engineering
Vol. 65, Issue Special I, February, 2022

EUROPEAN POLICY ON THE QUALITY OF THE ENVIRONMENT IN THE CONTEXT OF THE SUSTAINABLE DEVELOPMENT OF THE ROAD TRANSPORT SYSTEM

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Abstract: *At the present time, transport specialists and those with responsibilities in environmental protection, must solve as soon as possible the major problems in this sector, in order to meet the reduction of pollution, but also to find quality solutions, viable for ecological automotive transport from the point of view of energy resources. Long-lasting development and sustainability in road transport presuppose balanced economic growth in terms of the economic, social and environmental dimensions, depending directly on the production and energy sectors, which ensure major social prosperity. Sustainable road transport cannot be put aside by economic problems, because it is an integral part of this system.*

Key words: *sustainable development, pollution, gas emissions, pollution norm, motor vehicle.*

1. INTRODUCTION

What can we do today to not compromise the future?

It is a problem whose solution depends on all of us when we pollute. Until yesteryear, industrial activities bore the blame for the pollution of our planet. The rapid development of all branches of transport, especially the road one, the increase in the production of vehicles worldwide, the frequent use of cars unfriendly to the environment, have made the balance of the sources of nuisances and harmful effects to tilt in the opposite direction, towards the minus, making the transport activities to become today the main source of environmental pollution, they becoming a real danger for human health. Currently, specialists say that 72% of the polluting substances emitted into the atmosphere, result from transport activities.

As we have shown before, durability in transport derives from a comprehensive structure with the ideal of ensuring the needs of travel for the current generation, without contaminating or damaging environmental factors or human health. Applying now maximum efficiency in the consumption of raw materials and energy, the transport system must satisfy in optimal conditions the economic, environmental and social prospects of the mobility needs for the generations to come.

In other words, specialists and researchers have the mission to find transport variants whose qualities do not damage the environment and that do not affect human health. This can be achieved through an increase in the energy efficiency of the fuels burned in the thermal engines of the means of transport, the use of vehicles with a better performance in terms of the consumption of energy resources, the use of alternative energies for movement and last but not least, the permanent reduction of waste of any kind resulting from the production or decommissioning of the means of transport.

The means by which action can be taken to achieve these desiderata are the economic and legislative ones, through which action is taken on taxes, authorizations and fees. The effect of these constraints may lead to the reduction of the use of polluting vehicles with advanced physical or moral wear and tear, with technical failures, the reduction of energy consumption, the

efficiency and effectiveness of transport activities, the equal re-division of revenues between transport organizations and the society, but also the reorientation of the way transport activities are carried out.

It will have to be analyzed very well those aspects by which transport organizations cause damage to factors that are not involved in transport activities, without being held accountable. These are the external costs and are defined by the pollution with nuisances of the earth's atmosphere that have as a result the greenhouse effect, transmit vibrations in the soil, damaging the buildings, roads, works of art, they pollute the sound system, affecting human health, destroy the flora and fauna of the habitats through which they move, lead to the reduction of visibility and create traffic jams, especially in the urban environment, decrease the quality and lifespan of people.

2. CURRENT STATE REGARDING THE QUALITY OF THE ENVIRONMENT WORLDWIDE

Specialists claim that, worldwide, 21% of the total CO_2 emissions are due to the transport sector, the road sector accounting for three quarters of the pollutant gas emissions, of which 15% are CO_2 emissions from the combustion of fossil fuels in motor vehicle engines. Most of the polluting gases are produced by passenger transport vehicles (45.1%), respectively by freight vehicles (29.4%).

"The average global mortality from environmental pollution is estimated at 8.8 million people per year. The global average mortality rate is about 120 people per year per 100,000 inhabitants, which is far exceeded in East Asia (196 people per year per 100,000 inhabitants) and Europe (133 people per year per 100,000 inhabitants). Without fossil fuel emissions, the global average life expectancy would increase by 1.1 (0.9-1.2) years and 1.7 (1.4-2.0) years by eliminating all emissions" [8].

Starting from these figures and data, at the global level, we can say that the main culprits for air pollution, excluding industry but also other transport systems, are all the cars within the road system, which use carbon-based fossil fuels. As a result of the combustion process in internal combustion engines, they remove gases into the atmosphere that more or less pollute the atmosphere.

The gases resulting from combustion interact and combine with the gases that are part of the atmospheric air, form harmful, hazardous substances, produce global warming and create the greenhouse effect.

"Carbon dioxide, the main constituent of the mixture of gases discharged into the atmosphere during the operation of internal combustion engines, is 80% responsible for the greenhouse effect (unlike other gases, such as methane, for example). Global warming is largely due to it" [2].

Human society today knows a continuous development as a result of the progress of science and technology, but it is not aware that this evolution is made with enormous sacrifices of the environment, which is frequently contaminated with pollutants, harmful substances and waste.

Air pollution is the phenomenon by which it intervenes on its chemical composition in the form of a change in the proportion of its constituents or by the emergence of new constituents that enrich forms harmful to biotopes, biodiversity, affect human health, flora and natural fauna.

The direct-acting pollutants eliminated in the atmosphere by the internal combustion engines of automobiles which have a harmful effect on living organisms are the following:

1. Pollutants with a direct effect on morbidity and mortality (e.g. nitric oxide, sulphur dioxide, hydrogen sulfide, carbon monoxide and heavy metals, etc.);
2. Pollutants with indirect effect on morbidity and mortality (e.g. destruction of the ozone layer, greenhouse effect, acid rain, etc.).

"Internal combustion engines emit carbon dioxide, hydrocarbons, sulphur dioxide, nitrogen oxides and lead if they are operated on leaded petrol. Carbon monoxide and hydrocarbon emissions are amplified when the engine is idling (e.g. when the car is stationary

at traffic lights) and nitrogen dioxide emissions become more pronounced when the car accelerates" [2].

Transports as a branch of the industries of the countries of the world, exude into the atmosphere enormous amounts of pollutants that attract and capture the heat.

Figure 1 shows the share in percentage of the CO2 generated by industrial activities (burning of coal, natural gas, oil and other fuels, transport, including renewable and non-renewable industrial waste) for 20 countries of the world in 2018.

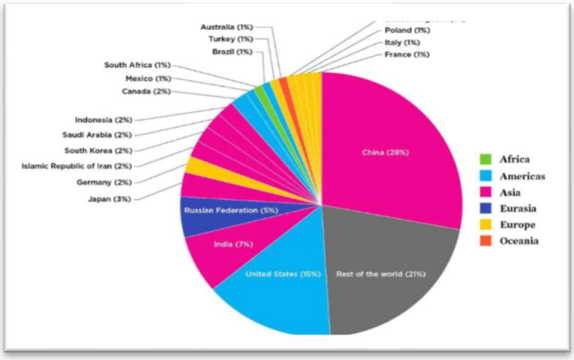

Fig. 1 Share in percentage of CO2 from industrial activities for 20 countries of the world (Source: International Energy Agency. [13].

Exposure to such particles causes serious conditions. They penetrate deep into the respiratory system of humans and animals, and from there throughout the body, causing short- and long-term effects on health.

Figure 2 shows data from the World Health Organization on PM 2.5 concentration at the end of 2020.

PM 2.5 is a representative indicator of global air pollution. In this case, it varies from the minimum value of 5.73 $\mu g/m^3$ in Brunei - a state on the island of Borneo. Nepal and South Asia are the most polluted states of the world with this type of particles.

Romania is, at this time, in the first part of the ranking with a concentration of 14.29 $\mu g/m^{3,}$ far from some countries in northern Europe. It is worth noting that, at the opposite pole, there are countries dependent on industries with major pollution, those that have a heavy road traffic.

The particle comes from a wide range of natural sources, but also from humans. Common sources include combustion of internal combustion engines of motor vehicles, burning of wood, coal, waste, etc.

In our country, the standard method by which the capture and evaluation of PM_{10} particles is made is regulated by *"Law nr. 104 dated June 15, 2011, on air quality"* [7], being standardized on the basis of SR EN 12341:2002, and the sampling and measurement of $PM_{2,5}$ is regulated by the same law, based on SR EN 14907:2005 standards, *"Environment"* [7]. The law defines *"standardized method for gravimetric measurement for the determination of the mass fraction of PM_{10} or $PM_{2,5}$ of particulate matter"* [7].

In this context, predicting for the next decades, we argue that the demands for the mobility of mankind are expected to increase throughout the world because, the global population is constantly growing, their incomes are increasing, their standard of living is also increasing, people's appetite for travel is increasing, and the car is becoming their number one favorite, being every day more and more indispensable to the transport needs.

Fig 2 Global pollution with PM 2,5 particles at the end of 2020. [13].

The International Energy Agency (IEA) states in a report on energy technology perspectives that: *"global transport (measured in passengers/kilometers) is expected to double, motor vehicle ownership rates to increase by 60% and demand for passenger and cargo flights to triple by 2070"* [1].

This is where innovation and technology must come in. Through them, humanity must

find solutions and turn to environmentally friendly transport with zero pollutant emissions. Hybrid motor vehicles, electric motor vehicles and alternative fuels offer viable solutions in this regard, making it the ideal solution for the sustainable and durable future of mobility.

All these objectives are presented by the IEA in the *"Sustainable Development Scenario"* [1] in order to reduce net pollutant emission allowances worldwide by 2070.

The graph (fig. 3), represents a sharp decrease of CO_2 worldwide at the beginning of 2025, due to the introduction of new technologies, green, ecological means of transport. According to global policies on decarbonization, certain sectors and subsectors of transport will be decarbonized over several decades.

According to these policies, the IEA shows us that globally the following will be phased out: emissions of gaseous pollutants from motorcycles by 2040; in the railway sector until 2050; low-tonnage vehicles by 2060; and for passenger motor vehicles and buses by 2070 and beyond, with the total disappearance of carbon-based fuels.

However, global policies on decarbonization predict for some regions (EU, USA) and for certain countries (China, Japan) the phasing out of conventional motor vehicles as early as 2040, as this transport sector is very difficult to decarbonize.

In our view, we believe that the decarbonization of these sectors and subsectors will be achieved much earlier, around the level of the 2030s and 2040s. This will be achieved due to the diminution of natural oil resources, and this industry will collapse.

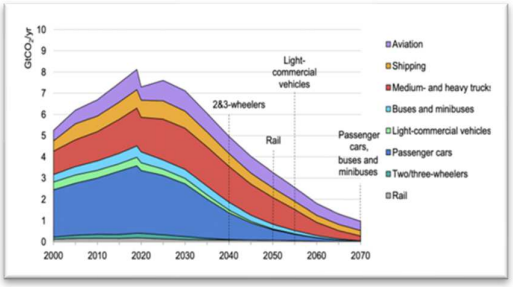

Fig. 3 Scenario on the sustainable and lasting development of the transport sector worldwide, through the decarbonization of different transport modes and systems, for the period 2000-2070 [1].

For this reason, worldwide, all conventional fuel stations will have to readjust their list of products sold and move on to the purchase and marketing of biofuels or electricity.

At the same time, manufacturers and owners of fleets of means of transport will have to purchase and readjust their vehicle engines to the new types of fuels existing on the market. Of course, this is very difficult to achieve, as they will hardly readjust to the new conditions. For example, Boeing has switched to testing biofuels on the engines of the means of air transport.

One cannot talk about the electric propulsion in aviation, sea and road (for heavy trucks) field, due to the low autonomy and weight of electric batteries, the use of hydrogen creating big problems (transport, storage and warehousing).

This is noted by very many authors and specialists in their papers.

"The potential for hydrogen as a fuel or electricity of the battery to drive large planes, ships and trucks is limited by the required autonomy and power; the size and weight of the batteries or hydrogen fuel tanks would be much larger and heavier than the current combustion engines" [3] [6].

3. EUROPEAN POLICY ON THE QUALITY LEVEL OF GAS EMISSION FOR MOTOR VEHICLES

The transport sector is to blame for a quarter of greenhouse gases on the territory of the European continent, which have brought about major changes in the climate.

"Transport is responsible for around a quarter of the EU's greenhouse gas emissions. All modes of transport must therefore contribute to the decarbonization of the mobility system' [9].

Compared to other sectors of the economy (energy, industry, construction, etc.), which have taken measures to reduce pollution since 1990, the transport sector has developed rapidly and chaotically, which has caused polluting emissions from transport activities to increase

and cause significant damage to nature. For this reason, the transport sector has become a major hindrance to the implementation of European objectives in the field of environmental protection.

Although in this regard, authorities around the world come up with proposals and draft laws and regulations related to environmental protection (fuel quality standards, standards on pollutant emissions of the engines that equip motor vehicles, the use of cleaner motor vehicle manufacturing technologies, ecological motor vehicles, etc.).

"This requires a systemic approach. Firstly, there is a need for low- and zero-emission vehicles with efficient alternative propulsion systems for all modes of transport' [9].

However, the quantities of chemicals and waste of any kind from motor vehicles that end up in nature are still high, and what is worrying is that they are increasing from one year to the next and still causing significant damage.

"This means that the sector has become one of the main challenges in terms of the EU's overall decarbonization goals. Building on the premise of current policies and taking into account the expected increase in freight and passenger transport, greenhouse gas emissions from the transport sector are expected to fall by 15% by 2050 compared to 2005. However, emissions will still be 10 % higher in 2050 than in 1990, due to the rapid increase in emissions from the transport sector in the 1990s" [5].

In 2017 and 2018, the European Parliament made proposals through mobility packages on the revision of the EU directives on green vehicles, euro vignettes and combined transport. These mobility packages represent *"an action plan to increase investment in alternative fuel infrastructure, the first ever CO_2 emission standards for heavy-duty vehicles, new CO_2 emission standards for motor vehicles and vans for the period after 2020, improved fuel-efficient tyre labeling and a battery action plan"* [4].

EU policies relating to environmental protection provide for tough measures for those who break the legislation in this area. They are applied in the fight for the decarbonization of transport, especially for road transport that chemically and soundly pollutes the environment, the general objective of these policies being to reduce, even stop, the negative effects of road transport activities.

Main steps in reducing the current dependence on fossil fuels [12]:

a) By 2030, at least 30 million zero-emission motor vehicles and 80,000 zero-emission trucks will be in operation;

b) By 2050, almost all new motor vehicles, vans, buses and heavy-duty vehicles will have zero emissions.

The main directions in which action is taken in this area are the following:

- ✓ Reorientation of the transport field towards the means of motor vehicle transport with increased efficiency, much more environmentally friendly;
- ✓ The use of high-efficiency fuels resulting in low or zero pollutant emissions;
- ✓ Implementation of environmentally friendly materials in the manufacture of means of transport;
- ✓ Equipping the means of road transport with technologies that will ensure the vehicles of the future an increased self-management of safe driving on public roads;
- ✓ The use of environmentally friendly fuels for the propulsion of road transport means;
- ✓ Creating a framework for the sustainable and durable development of the road transport system.

The future strategies of EU transport policy are focused on decarbonizing this sector.

In order to achieve these goals, in 2018, the European Commission developed the strategy entitled "*A Clean Planet for All. A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy"* [9].

Through this strategy, it has set itself the main objective by the year 2050, to reduce to zero the emissions of gases that contribute to the formation of the greenhouse effect.

In this respect, the third strategy of the set of seven main strategic elements, called *The adoption of clean, safe and connected mobility* [9] refers to the field of transport decarbonization.

Speaking on the basis of the figures, as regards the decarbonization of automotive transport, the EU's policies on exhaust emissions in this area are set out in legislation and pursue the following objectives:

- ✓ Reducing CO_2 emissions by 37.5% for new motor vehicles;
- ✓ Reducing CO_2 emissions by 31% for new vans;
- ✓ Reducing CO_2 emissions by 30% for new trucks with an intermediate reduction target of 15% by 2025;
- ✓ By 2025, motor vehicle manufacturers are required to provide at least 2% of the market for sales of new vehicles with low- and zero-emission vehicles.

All these percentages will be insured by 2030, compared to 2019.

3.1 European policy in the field of ecological motor vehicles

In order to achieve the objective of zeroing greenhouse gas emissions in 2050, the EU's electromobility policies are currently focusing and acting in the following main directions:

1. Financial incentives to reduce the cost gap between electric and internal combustion engines;
2. Exemptions or reductions of local, national taxes and fees for owners or transport organizations with their own parks;
3. Free access to paid roads;
4. Free parking spaces on the territories of European states;
5. Cancellation of the first registration tax for hybrid and electric vehicles;
6. Facilitating access to areas or cities where access is restricted for vehicles with classic engines for a certain pollution norm;
7. Programmes for the implementation of the logistics ensuring the charging of the accumulator batteries of ecological vehicles;
8. Information campaigns in order to raise awareness in order to orient themselves towards this type of motor vehicle, by presenting their benefits.

The EU should step up the production and use of alternative fuels that ensure the sustainable development of the road transport system at EU level.

With regard to the supply infrastructure, by 2025, the European Union wants around 1 million electric charging stations to operate throughout the EU countries for a total of 13 million electric vehicles.

Also, the European needs until 2030 in the infrastructure for servicing electric vehicles, is 3 million public recharging points and 1.000 hydrogen filling stations.

It has been concluded that electric vehicles are only efficient in urban areas. This is due to the autonomy of the electric accumulators of these means of transport.

"The Commission will support the installation of public recharging and refueling points where there are persistent gaps in this respect, in particular for long-distance journeys and in areas with lower population density, and will launch to this end, as soon as possible, the request for the necessary funds to carry out infrastructure development projects" [11].

As regards urban transport, according to the 2011 White Paper, the EU has also proposed a comprehensive programme to enhance ecological fuels and engines for vehicles. In this direction, the following objectives are taken into account:

- ✓ Halve the circulation of internal combustion engines within cities by 2030;
- ✓ Their gradual elimination from the urban environment by 2050;
- ✓ Creating pragmatic logistics in crowded cities without CO_2 emissions by 2030.

3.1.2 Current European standards on the quality of gas emissions from motor vehicles

"Climate change is a matter of serious concern for European citizens. The climate changes currently taking place on our planet are reconfiguring the world and amplifying the risks of instability in all its forms. The last two decades have included the 18 warmest years that have ever been recorded. The trend is obvious. It is essential to take immediate and decisive action towards the fight against climate change" [9].

At EU level, but also in Romania, motor vehicle transport is the most preferred option of

the population, which makes it the main polluter of the environment, contributing greatly to climate change.

Within the road transport system, road traffic is the main source of noise pollution affecting human health, biodiversity and the human habitats that cross them in the territorial land areas.

In order to reduce pollution, the European Parliament and the Commission are constantly concerned, that, in particular, automotive transport eliminates fewer harmful gases into the environment, gases that kill people and animals, damage the lives of human biotopes and habitats, create and deepen global warming.

In this regard, they come up with strict legislative proposals, to which all European countries must submit, regardless of whether they are part of the Schengen area or not. All legislative proposals in this direction become laws on the basis of which applicable rules and standards are established, which must be observed by all motor vehicle manufacturers on the territory of the European continent.

Exhaust emission standards are not an environmental label in the strictest sense, but they require compliance with the limit values set for air pollutants emitted by new vehicles.

The threshold values, in accordance with the European emission exhaust standard for internal combustion engines, apply to the following air pollutants: carbon monoxide (CO), nitrogen oxides (NOx), all hydrocarbons (HC) and particulate matter (PM). The threshold values vary according to the type of engine and type of vehicle and they are constantly reviewed by the European Parliament's Commission.

The limit values for the emission pollutant concentrations in the exhaust gases of EU regulated internal combustion engines, which are subject to pollution standards, and the date of their entry into force, are set out in Table 1:

Table 1

Limit values for European pollution standards and the date of their entry into force

Pollution standard / Limit values (g/km)	Euro 1	Euro 2, ID	Euro 2, IID	Euro 3	Euro 4	Euro 5	Euro 6
CO.	2,72	1,0 (63,24%)	1,0 (63,24%)	0,64 (36%)	0,50 (21,88)	0,50 (0%)	0,50 (0%)
NO_X	-	-	-	0,5	0,25 (50%)	0,18 (28%)	0,08 (55,56%)
HC+NOx	0,97	0,70 (27,84%)	0,90 (7,22%)	0,56 (37,78%)	0,30 (46,43%)	0,23 (23,33%)	0,17 (26,09%)
P.M.	0,14	0,08 (42,86%)	0,10 (28,57%)	0,05 (50%)	0,025 (80%)	0,005 (80%)	0,005 (0%)
Date of entry into force of the standard (day/month/year)	01.07. 1992	01.01. 1996	01.01. 1996	01.01. 2000	01.01. 2005	01.01. 2009	01.09. 2014

Note: The values in parenthesis show us the percentage of the reduction of the newly implemented polluting emissions standard compared to that of the pollution standard presented above.

Motor vehicles whose engines operate by indirect injection (IID-Euro 2) were required as minimum exhaust gas limits those of direct injection engines (ID-Euro2). The requirement entered into force on September 30, 1999.

After all this, the pollution standard EURO 5 has applied to all types of vehicle, as from January 1, 2011.

In order to significantly reduce carbon emissions from motor vehicles, the European Commission argues that manufacturers will have to improve the fuel efficiency of their fleet and accelerate the production of low- and zero-emission vehicles.

Given the data researched so far and those presented by the EEA (European Economic Area), we can show that the average pollutant emissions for new vehicles registered in the EU Member States (27 countries), to which Iceland, Great Britain and Norway are also added, were 122.4 grams CO_2/ km in 2019, with an increase of 1.6 g compared to 2018. Although these emissions were below the EU's 2018 target of 130 g/km, however, pollutant emissions instead of falling have increased alarmingly.

In order to take action accordingly, at the level of 2020, the EC (European Commission) has set even tougher measures in terms of CO_2 emissions from motor vehicles. They will not exceed 95 grams of CO_2/km compared to 2019. Therefore, all European motor vehicle manufacturers are obliged to refer exactly to this figure if they do not want to bear penalties.

Making a critical analysis of this sector from the research and studies carried out, we found that these figures have climbed as a result of the population's appetite for the purchase of new, medium and large SUV-class vehicles. This type of vehicle has a high fuel consumption as a result of powerful engines with high displacement, poor aerodynamics (massive bodies with non-performing aerodynamic coefficient), but also due to the technical operating conditions given by the 4x4 traction, which involves low speeds to ensure high traction powers, at high engine speeds, with a high fuel consumption and implicitly, several pollutants eliminated in the atmosphere. Statistics show that Europeans purchased in 2020 with 38% more such vehicles compared to 2019, although the SARS CoV-2 pandemic has affected the economies of EU countries, but also the European production of motor vehicles, keeping people at home. This also owes itself to the massive purchase of vans by Europeans in 2019 and 2020, simultaneously with motor vehicle sales, which have declined.

5. CONCLUSIONS

Our old continent must move from fragmented transport networks to an integrated, modern, sustainable and durable mobility transport system, connected to energy and digital networks. Citizens and organizations must be offered safe, intelligent and homogeneous mobility solutions throughout Europe, and European infrastructure must be among the most advanced of the main economies in the world.

Worldwide, 21% of total CO_2 emissions are due to the transport sector, the road transport sector accounting for three quarters of pollutant gas emissions, of which 15% are CO_2 emissions from the combustion of fossil fuels in motor vehicle engines. Passenger transport vehicles and freight vehicles make a high contribution to polluting gases.

Measures are needed to speed up the replacement and modernization of the entire European fleet of road vehicles.

In order to achieve this objective, the authorities of the EU countries must come up with attractive packages to stimulate the renewal of their own motor vehicle fleets, with programmes to popularize and educate the population in the field of electromobility and with social, economic and fiscal facilities regarding ecological means of transport and their infrastructure.

The limit values according to the emission exhaust standards for the engines of internal combustion vehicles have periodically decreased, from the Euro 1 pollution standard applied on July 1, 1992, until the entry into force on September 1, 2014 of the Euro 6 pollution standard, and the threshold values have been substantially reduced in order to cause less harm to nature and human health. This was due to EU policies on road transport pollution, and the decreases by nuisance category for road vehicles were as follows:

- ✓ for carbon monoxide (CO) – from the Pollution Standard Euro 1 (2.72 g/km) to the Pollution Standard Euro 6 (0.50 g/km), resulting in a decrease of 18.38%;
- ✓ for nitrogen oxide (NOx) - from the Pollution Standard Euro 3 (0.5 g/km) to the Pollution Standard Euro 6 (0.08 g/km), resulting in a decrease of 16%;
- ✓ for all hydrocarbons (HC+NOx) - from the Pollution Standard Euro 1 (0.97 g/km) to the Pollution Standard Euro 6 (0.17 g/km), resulting in a decrease of 17.52%;
- ✓ for particulate matter (PM) - from the Pollution Standard Euro 1 (0.14 g/km) to the Pollution Standard Euro 6 (0.005 g/km), resulting in a decrease of 3.57%.

EU has set targets through its policies for urban transport. Here we are talking about a programme for the application and greater use of green fuels and thrusters. The programme provides for the halving of the number of polluting vehicles in cities by 2030, and at the level of 2050 the programme provides for the total removal of this type of vehicles from urban road traffic. In order for these wishes to be achievable, measures are needed to ensure an efficient and practical logistical system.

By improving transport activities, we are developing our economics and increasing mobility, however, it is necessary to find that state of concordance between the three factors, the environmental factor, the social factor and the economic factor, on which the lasting and sustainable development of transport systems depends.

We believe that everything that has been achieved so far in the field of mobility has been done with an excessive consumption of resources and has led to the destruction of the environment and human health. The sustainable development of transport is the basic pivot of the development of the economy, and its growth reduces poverty and access to the free market for goods and passengers, it offers the opportunity to enter the labour market, services, education and decent housing.

If some policies specific to the concept of sustainable transport are adopted, this does not mean that the style in which we live together is immediately or totally changed, taking radical measures to reduce the needs of travel or to restrict the purchase of vehicles, but it is necessary to act where the genesis of evil is located, namely, by designing and building clean, environmentally friendly means of transport. The measures to be taken in this regard must be staggered over a long period and not in the medium or short term, by applying new strategies of a political nature that determine certain factors that contribute to the sustainable development of transport, namely: the political factor; teams of specialists from organizations building vehicles, machines and machinery. They must highlight their training and knowledge in the field of motor vehicle manufacturing, but in this respect, it is very important but also necessary to involve the human society through the activities they carry out daily.

As a result, sustainable transport is a fundamental element for ensuring prosperity, but it creates a real compromise between achieving major benefits and certain constraints linked to the cumulative effect of environmental and social costs.

Therefore, the future of transport, including road transport, is "green", "clean", and for this, humanity will have to readjust to electromobility or other resources, in order to ensure its travel needs.

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POLITICA EUROPEANĂ CU PRIVIRE LA CALITATEA MEDIULUI ÎN CONTEXTUL DEZVOLTĂRII DURABILE A SISTEMULUI DE TRANSPORT RUTIER

Rezumat: În prezent, specialiştii din transporturi şi cei cu responsabilităţi în protecția mediului, trebuie să rezolve cât mai urgent problemele majore din acest sector, pentru a veni în întâmpinarea reducerii poluării, dar şi de a găsi soluţii de calitate, viabile pentru transportul auto ecologic, din punctul de vedere al resurselor energetice. Dezvoltarea durabilă şi sustenabilitatea în transporturile rutiere presupune o creştere economică echilibrată în termenii dimensiunilor economice, sociale şi de mediu, ele depinzând direct de sectoarele de producţie şi energetice, care asigură o prosperitate socială majoră. Transportul rutier durabil nu poate fi dat la o parte de problemele economice, pentru că el face parte integrantă din acest sistem.

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