



*Raising standards for consumers*



## **POSITION PAPER**

### **SUSTAINABLE TRANSPORT AND MOBILITY IN THE CONTEXT OF EUROPEAN STANDARDS**

ANEC POSITION PAPER PREPARED BY MEMBERS OF THE  
SMART MOBILITY & SUSTAINABLE TRANSPORT PROJECT TEAM

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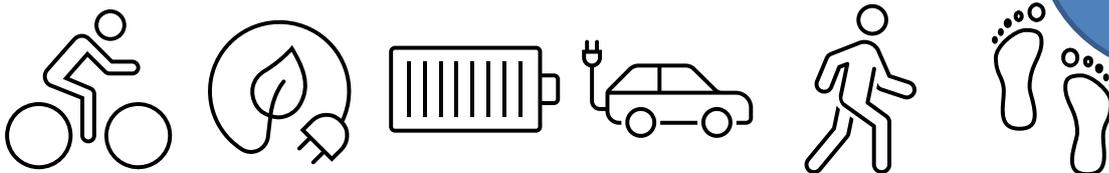
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Sustainable Transport and Mobility is a concept which involves safe, clean, green and competitive transport systems, through the development of efficient and easily accessible public transport, together with personal mobility options (private and shared vehicles, bicycles, scooters etc). All these options should be well connected and exchangeable through intermodal hubs.

The UN Secretary General’s High-Level Advisory Group on Sustainable Transport identified the attributes mobility must address to ensure a sustainable future. These include safety, affordability, accessibility, efficiency, resilience, and (most notably) low carbon impact.

ANEC focuses on improvement of inland transport modes, enhanced traffic safety, environmental performance, and energy efficiency, as well as the efficient provision of service in the transport sector.

Our opportunities for involvement are in line with the EU Sustainable & Smart Mobility Strategy (its Action Plan involves 82 initiatives that should guide transport policies in Europe over the next four years, and related transport industry transition targets to be achieved by 2030, 2035 and 2050).



***The use of Electrically powered or assisted personal mobility is truly a positive change only when it replaces less sustainable modes of transport.***

***Not when used as an 'add-on' or instead of walking.***

## ANEC RECOMMENDATIONS IN A NUTSHELL



**The physical safety of Personal Mobility Vehicles and Light Electric Vehicles must be improved and must not be ignored in sustainable transport discussions.**

- The solutions presented must be technology-neutral to keep up with fast-changing available technology.
- Safety and performance must be improved for both types of vehicles, while improving their material efficiency and resource efficiency. The physical safety of users of Personal Mobility Devices is crucial. Standards can assist regarding the use of protective equipment (helmets, reflective clothing).



**Consumers must have clear information on the impact of their mobility choices (Personal Vehicles vs Public Transport). Consumer privacy must be protected.**

- The digital transformation will play a vital role in providing accurate and reliable transport information for consumers. Detailed and in-depth analysis of economic, social, and environmental data should be carried out. It is important that this information refers to (or centres on) the cost/finance options that consumers have available, as well as how these choices may impact their lifestyles.
- For information to be accurate and useful for the consumer, Sustainable Mobility Systems (mobility devices and software or cloud technology) will handle personal data and therefore consumers need to be able to actively give their consent (opt-in) or withdraw it (opt-out). Systems need to be designed to accommodate this. As noted in various aspects of the work, there should be clear privacy and security measures when collecting and using consumer data.
- ANEC strongly supports the European Commission mandating use of standardised data formats across the EU, for use in promoting sustainable mobility systems and services.



**Availability of and Access to recharging for Electric Vehicles (EVs) should follow Design for All principles at its core.**

- Sustainable Transport needs to be designed in a way such that as many people as possible can use the vehicles, regardless of age or ability.
- Charging stations should be designed in a way that makes it possible to use them with a choice of standardised payment options and should not discriminate among the options offered.
- Systems covering road safety, traffic efficiency and comfort should help transport users make the right decisions (both for the environment and socially) and adapt to the traffic and mobility options available. This process must be inclusive.
- Users who are not able to, or deliberately do not want to, use the new systems should not be set aside. New technologies should never exclude the consumers who do not use these technologies, no matter the reason.



**Standards should also be centred on the encouragement of the safe use of Bicycles as well as other Electric Personal Mobility Devices**

- Standards can play a role in ‘road user separation’ to protect vulnerable road users.
- Standards can help stop consumers losing confidence. A lack of confidence in the safety associated with some mobility systems (such as bicycles) will result in a failure to capture all the potential benefits of these systems.
- Standards can also facilitate the improvement of these facilities by reviewing relevant infrastructure standards (both UNECE and at EU level).

**ANEC TRAFFIC AND MOBILITY PRIORITIES**



- To work towards a safe, efficient, inclusive for all, and sustainable transport system, of strategic importance for Europe’s economy
- To seek the highest levels of safety practicable for the occupants of vehicles, users and bystanders
- To call for a high level of safety for vulnerable road users
- To support the transition to sustainable, user-friendly transport infrastructure

**01. INTRODUCTION**

The transport sector is a high polluter. It is responsible for 23% of CO<sub>2</sub> emissions and remains almost completely dependent on fossil fuels, specifically on oil for 92% of its energy demand<sup>1</sup>. It is known that projected GHG emissions are not in line with the global climate objective due to the expected increase in transport demand. Though initially thought to have reduced as a result of the COVID-19 pandemic, the sector is still projected to show continued growth in the future. Intensified research and innovation activities are therefore needed across all transport modes, and these need to be in line with standards, consumer needs and preferences, in order for the EU to reach its policy goals towards net-zero greenhouse gas emissions by 2050. The significant reduction of current emissions is not a minor topic. We also need to consider pollutant emissions from transport other than CO<sub>2</sub>, including nitrogen oxide (NO), nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM). These contribute to more than 400.000 premature deaths each year, with 76.000 directly linked to NO<sub>2</sub> alone<sup>2</sup>.

<sup>1</sup>[https://www.weamec.fr/en/wp-content/uploads/sites/2/2021/06/wp-8-climate-energy-and-mobility\\_horizon-2021-2022\\_en.pdf](https://www.weamec.fr/en/wp-content/uploads/sites/2/2021/06/wp-8-climate-energy-and-mobility_horizon-2021-2022_en.pdf)

<sup>2</sup> European Environment Agency Report No 10/2019, Air quality in Europe — 2019 report, p. 8; available here: <https://www.eea.europa.eu/publications/air-quality-in-europe-2019/>.

All transport and mobility modes should become 'smart and sustainable', which are two sides of the same coin. The focus of this position paper is on the 'Sustainable' aspect and complements our previous position paper that focused on *Smart mobility systems*. These should result in mobility becoming more sustainable as they are in turn also more efficient.

The transition to smart and sustainable transport and mobility is as much about improving environmental performance as it is about equity and changing consumer behaviour. This requires a systemic transformation across the board that includes all forms of transport, and efficiently connects to intermodal transport and information, considering all the different socio-economic levels.

Needless to say, the transport and mobility sector has a huge potential for transformation. It has a tremendous opportunity to reduce GHG emissions as well as improve Noise and Traffic Congestion throughout the EU.

This shift requires action at different levels of government, as well as public and private partnerships. For example, substantial progress is needed on effective electric charging for infrastructure use, notably in road transport. This will allow consumers more choice in their behaviours, as well as lifestyle choices that are linked with the mobility modes they choose.

Modes and transport options are essential components to our way of life. They can be of great benefit and have far reaching impacts environmentally, economically and socially. ANEC firmly advocates moving toward forms of mobility that are sustainable, energy-efficient and respectful of the environment, and that benefit human health. Technical innovations - such as EVs, Intelligent Transport Systems (ITS) and other Smart Mobility solutions - will contribute to achieving this goal.

**But they are not the only solution.**

ANEC has also been following work on Alternative Fuels Infrastructure with the aim of having vehicles fuelled by non-polluting energy sources. However, it is essential to recognise more traditional pathways towards more sustainable mobility, such as encouraging the creation of dedicated environments for cycling, e-cycling and other modes. ANEC's main concern remains the physical safety of personal mobility devices in current EU Road Transport Systems.

Electrification of transport is a priority as it offers a way to introduce renewable energy sources into the transport system. The integration of electric vehicles for consumers requires an efficient battery that provides a long range and a long life, one that can easily and quickly be charged cheaply, with a well-developed charging infrastructure and increased safety.

EU leadership in electric vehicles - and particularly battery technology and manufacturing - will be decisive. However, overall transport policy is not only about the electrification of transport, but also about encouraging other low/zero emissions mobility options, such as cycling and walking. Road separation and the safety of the users of Personal Mobility Devices (PMD) and Light Electric Vehicles (LEV) is of paramount importance.

Having sustainable, inclusive, and multimodal mobility will contribute to wider EU policy objectives, in particular the target to reduce greenhouse gas emissions by at least 55% by 2030. Air pollution is the single largest environmental health risk in Europe.

The COVID-19 crisis is still significantly affecting transport demand and consumer use. We now have a unique opportunity to address congestion, road safety and air pollution as mobility demand increases again throughout Europe.

In later position papers, ANEC will also specifically address the aspects of Mobility-as-a-Service (MaaS) more concretely, including ride-sharing platforms. This is important as transport should become less polluting - especially in cities - and these new business models may offer benefit to consumers.

## 02. PHYSICAL SAFETY

**Key concern: The physical safety of personal mobility devices.**



Several standards are under development in the eMobility Coordination Group and CEN TC 301 'Road vehicles', work which ANEC is following.

Priority areas include 'Personal Light Electric Vehicles (PLEVs) and self-balancing vehicles', e.g. e-scooters and electric kick scooters (without a seating position); hoverboards.

We believe that an increased use of electrically-powered or assisted personal mobility devices is a positive change and is in line with the EU Green Deal objectives.

**However, it is truly a positive change only when it replaces less sustainable modes of transport. Not when used as an 'add-on' or instead of walking.**

Worryingly, electric personal mobility devices - such as e-bikes and e-scooters - have not seen the same degree of improvement in safety when compared with passenger vehicles. Therefore, we highlight the need to prioritise the physical safety of these vehicles or devices.

Studies show that injuries occurring from these types of vehicles are significant and are increasing<sup>3</sup>. The risks are varied: some personal mobility devices that are used in the standing position may be at higher risk. Bicycle safety is linked to urban conditions and different factors influence this, including road infrastructure and traffic conditions. Relevant legislation and standards must be futureproof. The physical safety of the mode/product itself must also incorporate the use and consumer behaviour aspect. This may include speed limits or/and restricting use to bicycle lanes or specific areas. Additionally, users of personal mobility devices are considered 'vulnerable road users', and the use of additional protective gear (like helmets) must also be encouraged and ideally made compulsory. ANEC follows work to improve the safety of these products by participating in the UNECE GRSP on helmets for speed-pedelec user and in CEN/TC 158 WG 15 'Helmets for speed-pedelec users'.

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<sup>3</sup>[https://www.researchgate.net/publication/338245010\\_Challenges\\_Caused\\_by\\_Increased\\_Use\\_of\\_E-Powered\\_Personal\\_Mobility\\_Vehicles\\_in\\_European\\_Cities](https://www.researchgate.net/publication/338245010_Challenges_Caused_by_Increased_Use_of_E-Powered_Personal_Mobility_Vehicles_in_European_Cities)

**Detailed safety criteria for personal mobility products should be set through safety and performance standards:**

- Standards should set minimum safety requirements that determine mechanical strength of the components and brake performance, as well as lighting. The safety and performance - including the durability, maintenance and reparability aspects of the components of a vehicle - are also essential.

We seek development of a standardised procedure for homologation independent of Original Equipment Manufacturers (OEM) or suppliers, one that aids a framework for public procurement of new shared electric road transport options (e-mobility).

Highlighted example: PMD partially covered by standardisation for example ANEC working on standards such as *FprEN 17128 - Personal light electric vehicles (PLEV) – Safety requirements and test methods*. Other standards include bicycle standards: EN 15194 and EN ISO 4210 series. The implementation of EN 17186 'Electricity fuel labelling' is being discussed in the work of CEN/CLC eMCG.

**03. CONSUMER INFORMATION**

**Key concern: Integrated planning and Multimodal real time traveller information for Consumers.**



ANEC understands that, for smart traffic and mobility systems to be effective, much data is needed. Furthermore, we strongly believe that consumers must have access to reliable mobility information such as performance, safety, time, costs etc. These two aspects go hand in hand. Digitisation must play a vital role, providing accurate and reliable transport information for consumers. Interoperability, including cross border functionality, is necessary for all of Europe and fundamental to the success of future transport systems. Data standards relating to vehicles (private), relevant fleet (commercial), and mobility services linked to traffic infrastructure and coordination can lay down the baseline for an open, interoperable and integrated service provision. This is essential for consumers.

- ➔ Fundamentally though, we need standardised data communication interfaces and frameworks that protect sensitive data and provide consumers with the option to opt-in (or opt-out), as well as have access and control over the data they generate.

It is important to focus on ensuring that digital information on the location, real-time availability and pricing of refuelling/recharging stations, that will be used in travel information services, is available in various formats. The physical position and design of the stations also affects the accessibility of this information to consumers. We note that personal data protection can be achieved through collecting only the minimum information needed for payment and settlement purposes.

**Currently, this aspect is not covered by vehicle related standardisation.**

An important issue that should be standardised is data types and categories and how these are communicated to the consumer.

Furthermore, consumers do not have adequate information concerning the availability/compatibility of services and prices/fees, and standards are needed to address information provision. This is closely linked to the charging infrastructure and information on relevant suppliers.

The lack of interoperability in deployed Alternative Fuels Infrastructure (AFI) in the EU (location, payment, communication etc.) is a major issue that must be addressed. The work should also have a strong focus on the use of fuels that are emission-free and support the decarbonisation of transport. It is important to keep in mind that emission-free refers to tailpipe emissions only, because exhaust gases are generated in the production of electricity and hydrogen.

Overall, these aspects of transport and mobility are not standardised across the EU, and this does not facilitate door-to-door mobility. The information should be supported with evidence on expected impacts for safety, environment, health, and land use (essential to sustainability). It should consider the evolution of mobility options for consumers through testing of relevant Use Cases that match consumer needs and expectations. This will make traffic and transport systems more efficient and reduce the current negative environmental impact.

The management of electronic traffic rules/regulations is a concern for regulators and standardisers alike. Intelligent Transport Systems are also gaining importance, not only in the area of 'automated driving', but also the connectivity of cars ('the car as data generator'). The standards aspects of ITS are handled at international level by UNECE WP 29, and at European level by CEN TC 278 'Intelligent Transport Systems' and ETSI TC/ITS. There is also active standardisation activity in ISO TC 204/WG 19 'Intelligent transport systems' to ensure interoperability. ANEC participates in TC 278.

### **Standards need to be developed to govern data types, formats and sharing methods within the EU mobility data space.**

- EU standardisation is required to ensure interoperability, and for information for consumers to be uniform, throughout the EU-27.
- It would be beneficial to develop a complimentary set of standards on smart charging, customer information and "real-time" information on charging points, time and costs.
- The engagement of consumers is a vital task in the process, as there will be a fundamental shift in the transport they use.

## 04. AVAILABILITY AND ACCESS TO RECHARGING OF EVS - INFRASTRUCTURE SURROUNDING THE VEHICLE

**Key concern: Consumer choice and access linked to Alternative Fuels Infrastructure Directive (Revision in 2021).** 

Electrification of transport is a priority as it offers a way to introduce renewable energy sources to the transport system. Work in CENELEC has outlined the fundamental barriers to the transition, such as the interaction between automotive industry and electricity networks (connectors, wiring rules, electromagnetic compatibility aspects, safety issues) which has experienced interoperability issues.

There are issues with several technical details and related consumer needs for home charging, fast charging as well as differences in the types of vehicles. Overall, there is a lack of standards which may prove an obstacle to roll-out.

The issue of 'physical' accessibility has not been addressed in the current standards (linked to the Alternative Fuels Directive) regarding charging infrastructure. There are some standards for Human-Machine Interface (HMI) issues, but nothing specific for the charging stations themselves.

Standards for the design of recharging infrastructure should consider surroundings (size, positioning, safety and external appearance), sustainability lifecycle points (durability, modularity and repairability), safety of the design and user-friendliness (signage and accessibility to people with reduced mobility). The accessibility aspects are given added importance as regards public facilities by adoption of the European Accessibility Act.

[Mandate link: M/533 Alternative fuels infrastructure \(Directive 2014/94/EC\) Revision 2021](#)

On the topic of the deployment of Alternative Fuels Infrastructure (AFID), ANEC will follow development of this framework of measures for the deployment of alternative fuels infrastructure in the EU. This is crucial because the impact of building up such infrastructure can mitigate the environmental impacts, specifically of road transport, which ANEC has defined as very important for consumers. We highlight concern that different standards and interoperability requirements (at national level) will increase costs for transport users and perhaps make it impossible to recharge or refuel vehicles throughout Europe.

[Mandate link: M/468 Charging of electric vehicles \(2010\)](#)

The [EU Green Deal](#) expects a possible fleet of up to 13 million electric vehicles in 2025,<sup>4</sup> which will require the amount of publicly-accessible recharging points to grow from approximately 200.000 in 2020 to a minimum of 1.000.000 in 2025.

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<sup>4</sup> Ibid, Section 2.1.5.: Accelerating the shift to sustainable and smart mobility

Transport decarbonisation requires a shift to alternative fuel vehicles and infrastructure. Within traditional transport models, CEN and CENELEC have produced major standards in the framework of Directive 2014/94/EU (CEN/TC 268 'Cryogenic vessels and specific hydrogen technologies applications', CEN/TC 326 'Natural gas vehicles - Fuelling and operation', TC 286 'Natural gas vehicles - Fuelling and operation', CEN/TC 301 'Road vehicles' and CENELEC/TC 69X 'Electrical systems for electric road vehicles'). There has also been vital standardisation work in standards on connectors and fuelling stations (traditional models adopted as EN standards), as well as labelling (electric vehicles).

- Potential areas for standards: smart charging, customer information standards, standards on "real-time" information on charging points and standards for interoperable energy services.

### ***Progress in standardisation***

It is important to note that in e-mobility there are various standards which outline electrical safety to specifications for charging cables to communication methods.

Please find below specific examples:

#### ***ISO/IEC 15118 - 'Road vehicles – Vehicle to grid communication interface – Part 1: General information and use-case definition'***

Different solutions to enable 'automatic' authentication and recharge exist (*Tesla* for instance uses a proprietary technology to enable it) or are being developed, but the most prominent development in this area is the ISO/IEC 15118-20 standard.

This standard covers the communication between the EV and electric vehicle supply equipment. It was revised in 2018 to ensure the inclusion of advanced smart charging options, such as bidirectional power transfer and wireless power transfer.

It is important to note ISO 15118-20 (under development) will be part of the existing and widely-used ISO 15118 standard. This is a protocol for communications between the electric vehicle and the recharging point. ISO 15118-20 will introduce an energy management feature. The previous standard allows smart recharging, while this Part 20 will allow bi-directional recharging. More value-added services, such as internet access, will be added. Finally, in reference to ITS and automatic systems, it cites a feature called "Plug'n'Charge"<sup>5</sup>. This uses automatic vehicle recognition to initiate a charging session. This work and upcoming standard has been the excuse from charge point operators to refuse the installation of payment card readers. The outcome could be that then consumers would simply plug their car and charge at any station, with the bill sent to them later. There is an ongoing discussion as to how this would work on the part of charge point operators and car makers, and on the integration of the ISO standard in EU legislation (AFIR or delegated acts).

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<sup>5</sup>Euelectric Sustainable Transport Forum - STF Report

[https://cdn.eurelectric.org/media/5091/eurelectric\\_comments\\_on\\_stf\\_report-2020-030-0736-01-e-h-5E037B0E.pdf](https://cdn.eurelectric.org/media/5091/eurelectric_comments_on_stf_report-2020-030-0736-01-e-h-5E037B0E.pdf)

AFIR covers some issues, but consumer issues such as opening time of charge points, payment method, smart charging options also essential.

It would be wrong to follow the lead of the industry and “let the market decide”.

If we look in detail at a subgroup of this work - the ‘Data architecture’ subgroup - it works on how data is communicated between charge point operators, car makers, apps and service providers. Unfortunately, there is no unique protocol, and the European Commission is aware this will raise difficulties with e-roaming platforms. Similarly, charge point operators having different protocols to communicate with the energy system (say via smart charging or V2G). The standardisation of these areas is essential but will take time.

### **IEC 63110 - Standardizing the management of EV (dis-)charging infrastructures**

A relatively new standardisation initiative relates to the communication interface of a charging station. This is referred to also as Electric Vehicle Supply Equipment (EVSE) and how this equipment links with the system that monitors and manages the charging station itself (referred to as Charging Service Operator (CPO)). The standard IEC 63110 is relevant because it deals with the management of EV charging and discharging infrastructure. This is often referred to as a way to manage back-end electric vehicle charging infrastructure.

Above (namely ISO 15118), V2G is mentioned which is based on the communication interface between the electric vehicle (EV) and the charging station (EVSE). IEC 63110 is needed as the charging station must also be able to exchange information with the CPO. Both standards are needed because just having a communication interface doesn’t enable a complete, fully functional charging process. These standards govern communication between charging service operators and third-party service management platforms to allow for EV roaming services. It is necessary to have roaming services for charging EVs and in parallel provide transparent information about the location of charging points and the costs/rates, all throughout Europe. Roaming refers to the use of service by a consumer which is not in direct contractual relationship with the CPO. Specifically, for EV it means that (1) an EV user can charge their EV also at a point that does not belong to their home network and (2) that the CSP can offer its services to consumers which are not it’s clients. The interoperability of the EV charging market must be maximized if it is to be successful. Overall, the EU needs a harmonized EV charging protocol.

Priority topics which are covered in standardisation work include:

- EV – Recharging point (IEC 61851-1<sup>6</sup>, ISO 15118<sup>7</sup>)
- Recharging point - Back-end/network management system
- Roaming
- Distributed energy resources (IEC 61850-90-8<sup>8</sup>, IEEE 2030.5<sup>9</sup>)

Potential developments that ANEC believes should also be considered as 'Consumer relevant aspects' include:

- sustainable higher power levels and more energy-dense batteries;
- the development of DC 'normal power' recharging solutions;
- 'smart' recharging (commonly referred to as smart charging) and V2G;
- inductive recharging, possible standard and development in-motion recharging or electric road systems.

### **European Standardisation Technical Committees that may be relevant:**

CEN and CENELEC Technical Committees:

- CEN/TC 301 'Road vehicles'
- CLC/TC 69X 'Electrical systems for electric road vehicles'
- CLC/TC 69X 'Electric systems for electric road vehicles'
- CLC/TC 23BX 'Switches, boxes and enclosures for household and similar purposes, plugs and socket outlets for d.c. and for the charging of electrical vehicles including their connectors'
- CLC/TC 64 'Electrical installations and protection against electric shock'

## **05. ROLE OF STANDARDS IN REDUCING CO<sub>2</sub> EMISSIONS FROM VEHICLES**

Most notable are the CO<sub>2</sub> emission standards for cars and vans which are already starting to have effect. For example, vehicle manufacturers are increasingly investing heavily in low- and zero-emission alternatives, and in battery-electric passenger cars.

Many new models of electric or hybrid vehicles are being developed, not only in luxury segments (as was the case previously) but also in middle and lower price segments. Increasingly, there are more very small city cars, such as the Renault Twizy and Citroën Ami. This is of benefit to consumers and increases the appeal of low- and zero emission vehicles. Nevertheless, ANEC is concerned that UNECE does not classify

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<sup>6</sup> EV recharging modes (current/intensity/tension/communication)

<sup>7</sup> Communication between EV and CPO, authorize charging session, reservation, smart recharging (V2G)

<sup>8</sup> Object models for EVs, smart recharging, integration with other DER types like PV, wind.

<sup>9</sup> EV-home energy management system, demand response, exchange of metering data, usage and billing information

these models as passenger vehicles 'M1'<sup>10</sup>, but as 'L7'<sup>11</sup> and they do not have to meet the same safety requirements.

International policy agreements and standards provide the technical and legal frameworks to ensure consistency and compatibility across the many functions of the transport system, between EU countries and globally. These international agreements (and work of the UNECE) also aim to ensure coordination in the global efforts toward a specific policy goal in transport, such as climate change mitigation (reduce CO<sub>2</sub> and GHG emissions from this sector). Most regulations in this area have a high impact on sustainable (sometimes referred to as green) mobility and safety policy goals. They are most relevant to vehicle manufacturers and vehicle users such as motorists.

These recommendations focus on recharging points for passenger cars and vans (the M1 and N1 categories of vehicles according to UNECE standards<sup>12</sup>). Passenger cars and vans are responsible for about 13% and 2.7% respectively of total EU emissions of carbon dioxide (CO<sub>2</sub>), so a significant part of these emissions.<sup>13</sup>

ANEC strongly supports the setting of minimum performance standards for vehicles, with particular attention to the secondary market.

Part of this is to enforce performance standards that push industry (OEMs) towards developing clean and more efficient transport systems, options and technologies.

ANEC calls for sustainability aspects to be addressed more concretely, including emissions reductions options or standards for vehicles. This is important as transport should become less polluting, especially in cities. A combination of measures should address emissions (GHG and other polluting gases), as well as reducing urban traffic congestion. Examples include: "establish stringent fuel economy standards ([such as 'CO<sub>2</sub> emission performance standards for cars and vans'](#)) and noting their importance for all types of vehicles including light vehicles.

For the period 2020-2024, Regulation (EU) 2019/631 confirms the EU fleet-wide CO<sub>2</sub> emission targets set under Regulations (EC) No 443/2009 and (EU) No 510/2011.

**Cars: 95 g CO<sub>2</sub>/km**

Starting in the years 2025 and 2030, Regulation (EU) 2019/631 sets stricter EU fleet-wide CO<sub>2</sub> emission targets, which are defined as a percentage reduction from the 2021 starting points.

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<sup>10</sup> Used for the carriage of passengers, with no more than eight seats in addition to the driver seat, also known as passenger cars.

<sup>11</sup> Other than that classified for the category L6, whose unladen mass is not more than 450 kg (650 kg for those intended to carrying goods), not including the mass of batteries in the case of BEV's, whose power does not exceed 15 kW.

<sup>12</sup> More info on vehicle categorisation according to UNECE standards available here: <https://ec.europa.eu/growth/sectors/automotive/vehicle-categories/>

<sup>13</sup> Calculated based on figures from European Environment Agency EEA Report No 2/2020, Monitoring CO<sub>2</sub> emissions from passenger cars and vans in 2018, p. 11 ; available here: <https://www.eea.europa.eu/publications/co2-emissions-from-cars-and-vans-2018>.

**Cars: 15% reduction from 2025 on and 37.5% reduction from 2030**

Other aspects of the regulations include 'require periodic vehicle inspections': 'ensure legal certainty regarding driver permits'; and 'implement regulations to prevent other forms of pollution (e.g., noise).' There are also incentive mechanisms for zero- and low-emission vehicles (ZLEV). It is also relevant to note recent advances in vehicle interior air quality standards. For example, work is currently being carried out in the UNECE Working Party on Pollution and Energy (GRPE). They have set a timeline that the work of the group on Vehicle Interior Air Quality (VIAQ) should be completed by November 2025, with tests already taking place in January 2024.

**The vital Euro 7/VII Standard***Future vehicle emission standard*

ANEC strongly supports the need for another Euro emission standard for cars, vans, trucks and buses. We advocate the comprehensive revision of the outdated Euro 6/VI standard. An ambitious Euro 7 could reduce total EU NOx emissions and avoid linked premature deaths. We note this while putting aside the proposed phase out of the internal combustion engine (ICE) cars in 2035 and the uptake of electric cars. There will still be many more ICE cars sold in Europe. The problems associated with combustion engine vehicles is still relevant as the take-up of zero emission vehicles will take time and not happen overnight. According to T&E, another 95 million more ICE cars will be sold in Europe between 2025 and 2035. On average, these vehicles will still be on the road for more than 10 years, and much longer in Central, Eastern and Southern Europe, (possibly over 15 years)<sup>14</sup>.

The new EURO 7 standard must ensure that pollution is reduced to the lowest level that is technically feasible.

[-> More information can be found in relevant CLOVE proposals \(Consortium for ultra Low Vehicle Emissions\).](#)

**06. ANEC's HORIZONTAL VIEW:****THE ROLE OF STANDARDS IN MEETING OBJECTIVES OF THE EU SUSTAINABLE TRANSPORT AND MOBILITY POLICY**

A broad set of standards covers current mobility systems, from road traffic to intermodal transport. European standards contribute to the safety and performance aspects of transport. It is crucial to have affordable and high-quality transport solutions that can aid social cohesion and help protect the environment. Not only are there increasing environmental pressure in general, but also significant health and environmental problems persist (such as air pollution).

Standards can bridge research and innovation. Innovation supports these aims of mobility, increasing the efficiency and sustainability of the growing transport sector.

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<sup>14</sup>[https://www.transportenvironment.org/wpcontent/uploads/2021/08/2021\\_05\\_Briefing\\_BNEF\\_phase\\_out.pdf](https://www.transportenvironment.org/wpcontent/uploads/2021/08/2021_05_Briefing_BNEF_phase_out.pdf)

EU policies develop and bring to market tomorrow's innovative solutions that will be central to the role of standards in sustainable transport.

### ***List of priorities for new standardisation work***

- **Consumer information**

Integrated planning and Multimodal real time travel information should be readily accessible to consumers. ANEC considers it a priority to provide standardised comparable information that impacts individual behaviour or consumer choice.

- **Intermodal transport and shifting to public transport and micro mobility options**

Standards play a crucial role in ensure greater intermodality. In essence this means ensuring efficient connections between various transport options. It should consider door-to-door journeys including public transport and multimodal trips. It ought to be easy for consumers to make connections between stations, mobility hubs, multimodal areas as well as find parking. Traffic control systems linked to real-time traffic events and smart infrastructure can support this.

Overall, urban transport must be accessible with infrastructure, ticketing, and cost information available to all consumers (including vulnerable consumers).

- **Personal mobility (or Personal Mobility Devices)**

Standards can improve safety and influence consumer preference for bicycles as well as for light electric vehicles. Standardisation linked to Sustainable transport options should increase together with the increasing use of bicycles and LEVs in the EU. ANEC looks for an efficient, user-friendly and safe way to recharge all electric vehicles, as well as ensuring the safety of personal light electric vehicles (e-scooters and electric kick scooters etc).

ANEC encourages the harmonisation of definitions in the various approval frameworks and PLEVs on public roads across countries and regions. For example, "setting design standards for sidewalks and bicycle paths" deeply influences universal urban access and safety and has an important impact on sustainable mobility.

- **Electro mobility (or e-Mobility) concept of using electric powertrain technologies**

In the EU, there is ongoing development and revision of existing standards and open protocols. It is also expected that these will converge into official international standards with new and linked features to strengthen and support growing e-mobility use.

ANEC is closely participating in eMobility Standards under CEN-CENELEC's eMobility Coordination Group to stay up to date on possible ANEC input into standards on (1) infrastructure and (2) vehicles. The focus for this work is on the standardisation of electric, hybrid and plug-in hybrid vehicles and to advocate for safe, reliable, inexpensive, and user-friendly electric vehicles.

- ITS (Intelligent Transport Systems), connected, cooperative and automated (CCAM) vehicles and Electric/Smart Road Systems

ANEC believes that Cooperative, Connected and Automated Mobility (CCAM) is necessary to reach the EU objective of 'Vision Zero'. This is especially important, as progress in reducing EU-wide road fatalities has stalled<sup>15</sup>. European standardisation successfully addressed the interoperability of electronic road toll systems and of co-operative systems for Intelligent Transport in the field of information and communication technologies (CEN TC 278). The area for standards work include automated vehicles and cybersecurity and how that links to optimized interfaces and consumer data and privacy.

## 07. CONCLUSION

In conclusion, ANEC strongly supports moving towards forms of mobility that are sustainable, energy-efficient and which benefits human health. Changes such as Electrification, Intelligent Transport Systems (ITS) and other Smart Mobility solutions, will contribute to achieving this goal.

In an EU context, we request that DG GROW and DG ENV together ensure that CO<sub>2</sub> emission performance standards, all Air Quality Standards as well as the upcoming Euro 7 emission standard, are coherent and support each other. It is important that there are no further delays in this work. The science and preparatory work have been completed so there is no reason to delay the implementation of ambitious proposals and standards that set the lowest pollution and emission limits technically possible with the technology that is currently available. This is an urgent need in the Transport and Mobility Sector.

ANEC calls for EU-wide action plans, standards and rules that:

- help achieve the policy goals outlined in the EU Green Deal. For example, standards that relate to solutions such as incorporating sensors and communication technologies into rentable electric bikes to monitor levels of air pollution, and standards that are linked to EU/National transport strategies.
- the transport and mobility sector must reduce the emissions overall. In terms of the Commission's role, it must revise the outdated Euro 6/VI standard in a comprehensive way where the outcome is that pollution is cut to the lowest technically feasible levels and all loopholes closed. This should not be further delayed.
- improve the urban transport hub of cities through installation of real-time information systems that let consumers (users as passengers) know about the availability of public transport, bikes and e-vehicles.

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<sup>15</sup> <https://ec.europa.eu/transport/sites/transport/files/3rd-mobility-pack/3rd-mobility-pack-factsheets-safety.pdf>

- improve access to all, such as pilot tests of an electric car sharing platform for people with reduced mobility. Of course, such plans should first and foremost prioritise the safety of users and consumers, and their rights and needs. They need to do this by guaranteeing safe and effective accessibility, and usability of the transport infrastructure, for all transport modes and options.
- enforce the decarbonisation of transport via electric (recharge or battery electric) vehicle concepts (including e-bikes, EPACs, etc.). This includes personal micro-mobility options such as e-scooters, e-bikes and cargo bikes, covering door-to-door mobility.

All in all, for this transition to be successful, all these aspects need to be introduced together as a comprehensive EU framework and package of measures by 2025 (short term, actionable plans). We cannot disregard such aspects because consumer confidence is closely linked to consumers enjoying tangible benefits: access to clean breathable air, especially in urban areas. This should be a consumer right.

Only reducing pollutants to a certain level without true improvement in vehicles' real-world emissions performance is not sufficient. The result of these strategies and revisions (such as AFID) should have quantifiable outcomes and not be only greenwashing.

For European consumers and the environment overall, we call on the Commission, as well as on standards organisations such as CEN/CENELEC, to bring forward ambitious proposals with short-term action plans. These should demonstrate the EU's commitment to the ambitions of the *Zero Pollution Action Plan* to reduce emissions, specifically from the transport sector and promises made in the *European Green Deal*.

## Disclaimer

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Please note that the references to manufacturers and brand names are only indicative and in no way constitute an endorsement or recommendation (or similar) from ANEC.

## About ANEC

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ANEC is the European consumer voice in standardisation, defending consumer interests in the processes of technical standardisation and conformity assessment, as well as related legislation and public policies. ANEC was established in 1995 as an international non-profit association under Belgian law and is open to the representation of national consumer organisations in 34 countries. ANEC is funded by the European Union and EFTA, with national consumer organisations contributing in kind. Its Secretariat is based in Brussels.



***Raising standards for consumers***

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