



European
Automobile
Manufacturers
Association

The 2030 Urban Mobility Challenge: ACEA's Contribution

MAY 2016



European
Automobile
Manufacturers
Association

'The 2030 Urban Mobility Challenge: ACEA's Contribution' describes transport solutions that will meet future mobility demands and are based on the following six main drivers:

THE SIX MAIN DRIVERS OF FUTURE MOBILITY

- 1. Integrated approach for sustainable cities:** equal involvement of all stakeholders in order to maximise emission reductions and boost mobility through better regulation.
- 2. Connectivity revolution:** intelligent networking of vehicles, both with each other and with infrastructure, to keep traffic flowing, prevent traffic jams, better manage parking and traffic safety, thereby saving resources and time.
- 3. New business and mobility models:** vehicles as integrated components in the internet of things, collecting and managing information from drivers, occupants, goods, vehicles and other sources, making it possible to provide citizens, companies and transport operators with new services.
- 4. Better public transport systems:** public and private transportation as part of a single connected network that increases efficiency, avoids congestion, lowers emissions and improves safety. Public transport provides fast connections, on demand availability, accessibility and affordability.
- 5. Optimised urban freight delivery and logistics** have adapted to new consumer demands by implementing innovative urban freight distribution systems, e.g. new last mile delivery solutions or real time information systems.
- 6. Urban Access Restrictions schemes** are used as clear, transparent and technologically neutral tools to accomplish specific urban mobility objectives. Non-discriminatory, they perfectly fit in the sustainable urban mobility plans of cities.



European
Automobile
Manufacturers
Association

INTRODUCTION: THE 2030 MOBILITY CHALLENGE

Transport and urbanisation challenges in the 21st century

By 2030, most of the world's population will be concentrated in cities. Assuming this trend continues, by 2050 more than 80% of the world's population will live in an urban environment. Cities already concentrate the majority of economic activities and output, at the same time they also consume most of the world's resources and energy supplies. As a consequence, they risk generating an unprecedented amount of urban traffic, from heavy freight to personal vehicles.

Europe is advanced in terms of urbanisation. Today more than two-thirds of its population lives in urban areas and this share is projected to increase. Cities are where the opportunities and threats to sustainable development come together. Urban areas are characterised by density: of people, activities, interactions and economic, social and cultural functions. Cities are places of innovation, drivers of our economy and where wealth and jobs are created.

Urbanisation requires mobility solutions that are coherent with land use policy. Efficient transport and mobility, based on a balanced mix of public and private transport and dependent on the characteristics of each city, is and will continue to be the backbone of cities' growth and competitiveness. Trucks and vans deliver virtually all goods transported into cities and cars and buses are responsible for an important part of urban journeys. The challenges of urbanisation open up new opportunities for innovative technologies and businesses to bring growth and prosperity. Urbanisation necessitates intelligent new transportation concepts. The European automobile industry is committed to continue shaping future urban mobility and transport in a sustainable manner.

Sustainability has three pillars: the economy, society and the environment. Whereas environmental issues are very high on urban mobility agendas, the importance of transport to urban social and economic structures is often neglected in discussions. All three aspects of urban sustainability must be treated with equal importance and cannot be overlooked at a time when public funding is scarce.

The future will bring a transportation landscape in which cars, buses, pedestrians, bicycles, freight and rail will be woven into a connected network; saving time and resources, producing lower emissions and congestion, and promoting efficient land use and improved safety.



European
Automobile
Manufacturers
Association

What needs to be done and what industry is doing

The European automobile industry's investments in innovation keeps it ahead of global competition. The industry is and will continue to be committed to maintaining its leadership in sustainable low carbon propulsion, integrated vehicle safety and vehicle connectivity. Moreover, Europe's auto manufacturers are dedicated to ensuring affordability for consumers and transport operators.

Preserving technological neutrality is key to supporting innovation. Knowing that technological developments are by definition not completely predictable, European automobile manufacturers believe that none of the technology options should be discarded and that no 'winners' should be prematurely selected. Technological progress made by using one technology sometimes reduces the progress made in another field. This reduces the potential for overall technological progress in the long run.

European automobile manufacturers have always promoted an integrated approach to improving urban road safety, the environment and economic performance rather than focusing on vehicle technology alone. Some of the lowest cost opportunities for emission reductions in transport have not been exploited so far. Better use of CO₂-based taxation for vehicles, support for eco-driving, better road infrastructure, fostering the introduction of new low rolling resistance tyres and the optimisation of freight logistics are just some examples. As far as safety is concerned, continuous improvements to the safety of vehicles have resulted in an impressive decline in road casualties. Further reduction, however, requires not only even safer vehicles but also safer urban infrastructure, improved driver skills and behaviour, better enforcement of existing traffic legislation and greater interaction and networking between all of these factors.

The environmental and safety benefits of new technologies will increase as new vehicles progressively replace old ones on the streets. European automobile manufacturers stress that the renewal of the current vehicle fleet will contribute more significantly to the reduction of emission levels and to safety than the prescription of new technology.

Urban infrastructure design is sometimes leading to antagonism between motor vehicles and other road users. There is no doubt that better engineering can improve urban road users' conditions by making urban infrastructure safer, more convenient and more complete.

Connected vehicles, intelligent transport systems (ITS) and infrastructure can positively respond to the mobility challenges faced by cities: accessibility, congestion, energy efficiency, emissions and safety. However, connected solutions require that a supporting infrastructure is built and that the connected vehicle-related services are actually delivered. Cities should become part of this 'ecosystem of new connected vehicles.'



European
Automobile
Manufacturers
Association

Many urban mobility measures exist aimed at balancing supply and demand – and they are implemented all over the world. Their cost and effectiveness depends on a case-by-case basis. In many instances, simple solutions can be applied to solve a problem without resorting to complicated and expensive measures. It is obvious that these solutions should be tried first before more complex measures are invoked.

Cities need high-quality and effective public transport systems that can respond to the needs for increased mobility of businesses and citizens. These transport systems need to be integrated, combining buses, cars, metros, tramways and trains. Further support for pilot projects on integrating private and public transport should be promoted. New concepts need to be developed that provide flexibility, quality, efficiency and affordability.

Passenger journeys, logistics and freight delivery are becoming increasingly complex in the post-industrial city, as customer demands increase and price constraints bite more deeply. Local authorities have sought to respond to these changes with an array of mainly unharmonised schemes aimed at restricting access. These are increasingly creating difficulties for citizens as well as for local and international business. Measures should be reassessed to ensure maximum harmonisation, simplicity, stability, integration and acceptability. They have to be based on objective criteria, be fair and justified. In line with the principle of technological neutrality, compliance with existing emission standards should be the only criteria for Low Emission Zones (LEZs).

The delivery and collection of goods in urban areas, especially in old city centres, has a major impact on the economic power, quality of life, accessibility and attractiveness of cities. Changes in consumer demands result in changes in the types of goods demanded, their distribution and the organisation of deliveries. Improved compliance with parking rules, adapted infrastructure and expanded delivery time slots contribute to better urban freight distribution. New solutions for urban freight distribution should be looked at.

The 2030 challenge: solutions for the city of the future

Across Europe there are big differences in the way cities are built and run, and how goods and inhabitants move. It is vital to understand more about these differences in order to make the right choices for building sustainable cities. Every city is unique, but all share similar traits and face the same challenges. To that end, this paper presents common scenarios on how the mobility in cities could evolve and become more efficient in the future.



European
Automobile
Manufacturers
Association

VISION: SUSTAINABLE URBAN MOBILITY IN 2030

We have identified several ways in which city leaders can help make the urbanisation process more sustainable regarding mobility. An integrated approach to mobility challenges, based on technology neutrality and on an intelligent network of vehicles and infrastructure, together with efficient public transport can make a big difference. Wider use of new logistics concepts and shared mobility solutions can also make a major contribution to sustainable mobility, as can the use of inter-modal and multi-modal mobility services as part of day-to-day life.

An integrated transport system enables people to move easily from one point to another and addresses the need for a suitable first and last mile solution. As users switch transport modes, they select the most appropriate technology for every step they take. Individual transportation remains an attractive solution because of the flexibility it offers. In 2030, the best solutions for enabling urban inhabitants to reach their destination safely and efficiently will be many and varied.

Vehicles and traffic infrastructure will be part of an intelligent network. Vehicles and infrastructure simply have more information at their disposal to help drivers reach their destination safely and efficiently.

Automatic driving will be an integral part of urban mobility in 2030. Technology will have improved the traffic flow and reduced chaos so that citizens are safer and less stressed.

More people will share their vehicles: they are shared more efficiently throughout the day and scarce parking space is used more effectively. More people give lifts: cutting-edge information technology and mobile devices bring drivers and passengers in touch with one another quickly and easily. Increased capacity levels and the resulting decrease in the number of vehicles on the road has helped to improve the traffic flow, particularly during peak travel times.

New logistics concepts have created synergies between personal transport and commercial transport solutions: there are no wasted journeys.

Traffic flows and mobility solutions come together at urban hubs – transfer stations for various modes of transport – and are linked up with other urban services, helping to relieve strain on the city's traffic levels. Any purchased goods can be put in storage so they can be picked up with the car at a later point or citizens can have them delivered to their doorstep thanks to an intelligent and environmentally-friendly urban logistics service.

Inter-modal and multi-modal mobility services are a part of day-to-day life. Instead of being fixated on a particular mode of transport, citizens use the most suitable service for each particular situation or journey.



European
Automobile
Manufacturers
Association

Every member of the traffic flow has access to up-to-date and reliable information at all times. Citizens have been given the right tools for helping to make the right decision when it comes to travel.

TRANSPORT SOLUTIONS THAT FIT THE DEMAND

In 2030, the urban transport system provides increased mobility for people and goods. As a result, it improves the quality of life of city dwellers. Access to new technologies through a variety of mobility solutions, particularly individual transport, is a crucial factor in delivering this ambitious contribution.

Efficient urban mobility allows people and goods to move using fast, reliable and affordable transport solutions. For individual mobility, the availability of a variety of technologies is a decisive factor in the mobility system's performance. Goods transportation, however, requires heavier vehicles and very light commercial vehicles that provide door-to-door delivery services.

A wide array of technological solutions is offered by mobility service providers in 2030. The technological choices for these transportation modes, in particular their energy source, is determined by their use and the user's priority. Smartphones, as a means of accessing such mobility services, are inextricably linked to this change.

Co-modality is widely taken up by citizens, who switch between transport modes depending on their needs: effectiveness (short travel time), affordability (lower cost of travelling), convenience (accessibility and comfort), availability, etc.

In 2030, public transport remains the backbone of an urban mobility portfolio in all situations where a sufficient level of demand exists and justifies the use of high-capacity vehicles (from minibus to train). In order to foster multi-modal behaviour, public transport apps integrating all local mobility offers (including payment, routing, timetables, conditions to pass from a personal mode to public transport, etc) have convinced locals and visitors of their easy use.

However, privately owned vehicles are still a key part of individuals' mobility and remain an important pillar for those commuting in sparsely populated and rural areas. Citizens behave in a multi-modal way, especially in dense city centres with good public transport. However, for certain requirements, there is no alternative available. Shared mobility concepts like car-sharing, when available, close this gap and offer on-demand mobility whenever desired.



European
Automobile
Manufacturers
Association

Local authorities have encouraged shared mobility schemes and adopted policies consistent with this. Parking management policies for all types of vehicles (cars, trucks, buses, bikes and motorcycles) have been introduced, as well as traffic calming measures to make the best use of streets.

HOW DID WE ACHIEVE THIS? MAIN DRIVERS

How can we make sure that transport supply meets demand in 2030? Among the many factors, there are two that deserve particular attention – namely an integrated approach and connectivity.

Integrated approach for sustainable cities

The involvement of all stakeholders has proved by 2030 to be crucial in order to maximise emission reductions, distribute the regulatory burden more equally and avoid discrimination. Opportunities to reduce emissions are promoted widely – such as the better use of CO₂-based taxation for vehicles and vehicle labelling, support for eco-driving and improving consumer behaviour, better road infrastructure, the introduction of new low rolling resistance tyres and the optimisation of freight logistics, road traffic management through intelligent transport systems (IT), fleet renewal, lower carbon fuels, support for market uptake of alternative powertrains, appropriate refuelling and recharging infrastructure for alternative fuel vehicles and the diversification of energy sources used in transport to meet climate goals.

Vehicle manufacturers continue to provide a wide range of technical solutions, from alternative powertrains to highly-efficient combustion engines, powered by conventional or alternative fuels. Alternative fuels represent one of the essential parts in the sustainable mobility puzzle. Automakers support a widely available, diverse range of low carbon and renewable energy sources and technologies that include biofuels, CNG, LPG, clean diesel, electricity and hydrogen (e.g. fuel cell vehicles). Electrification of the mobility and transport system is an essential part of the alternative fuel mobility mix. However, the freedom for consumers to select the technology they prefer has been guaranteed.

Technology enables considerably lower CO₂ and other greenhouse gases emissions, as well as lower polluting emissions, thus improving air quality. Thanks to continuous vehicle fleet renewal policies, emission levels have been reduced and safety has also been improved in the process. Road infrastructure is adapted to the use of vehicles carrying the latest technologies within the urban environment.



European
Automobile
Manufacturers
Association

A comprehensive approach to road safety has proved to be the most efficient and sustainable way to achieve positive results by 2030. Besides even safer vehicles, safer urban infrastructure and improved driver skills and behaviour, better enforcement of existing legislation and the interaction and networking between all of these factors has resulted in excellent road safety records in cities.

Better engineering has improved urban road users' conditions by making infrastructure safer, more convenient and more complete. Multiple function lanes are now generalised, allowing different activities at different times of the day (bus lanes, general traffic lanes, freight lines, loading/unloading areas for commercial vehicles or residents' parking). Light signals indicate to other vehicles if a priority vehicle is using the express lane.

The public sector plays an active role in supporting innovation. It drives the development of new technologies through incentives and public procurement. Technology neutral urban policies have enabled more efficient mobility solutions. New technical fixes are not assessed on the basis of technology but on their efficiency.

Connectivity revolution

Besides the importance of an integrated approach, citizens now have access to sophisticated, real-time, multimodal cloud and mobile-based traffic management systems that can help them better meet their needs across all types of transport. Manufacturers have developed automated vehicles that improve safety, efficiency and sustainability.

In 2030, vehicles communicate with each other, enabling communication between vehicles and infrastructure and allowing vehicle occupants to communicate with their environment. Intelligent networking of vehicles, both with each other and with infrastructure, has made optimised traffic flow management a reality; preventing traffic jams, managing parking opportunities and traffic safety, thereby saving resources and time.

Networked traffic systems optimise the flow of traffic and reduce emissions levels in cities. People and goods arrive at their destinations faster and with a lower impact on the environment. Intelligent traffic systems make tailor-made, intermodal mobility solutions possible. Networked vehicles are aware of traffic light phases and building sites. They are aware of the optimum route and can, when necessary, recommend other means of transport as alternatives.

Smart traffic management systems, such as vehicle routing and tracking and the optimisation of traffic flows through the introduction of traffic light synchronisation, are a reality. By providing the relevant infrastructure that enables vehicle-to-infrastructure communication, dynamic routing has by 2030 been established, helping traffic flow.



European
Automobile
Manufacturers
Association

Vehicles are digital: they do not only receive data from a variety of channels, but are also sharing some approved data with all of their surroundings. The significance of telematics and its usefulness for managing logistics has also grown consistently. Vehicles have evolved into mobile information nodes and traffic has undergone a digital revolution. In 2030, all modes of transport and all road users, as well as the infrastructure, are interconnected and the potential that digitalisation offers for efficiency is fully exploited – mobility in cities flows freely and is less expensive.

Many challenges have been successfully faced before reaching this situation. Namely: setting up reliable data connections, developing standards, collecting data, aligning lifecycles of vehicles and infrastructures, and fostering strong cooperation between policy-makers, industry and society.

In conclusion, in 2030, connectivity has revolutionised both vehicles and the entire transport system. Digital networking combines diverse means of transport, infrastructure, freight transport and individual mobility requirements into a fully synchronised system. This revolution has been possible thanks to the cooperation of various industries and business sectors, including the automobile industry with the support of policy-makers.

THE IMPACT OF THE INTEGRATED APPROACH, INNOVATION AND CONNECTIVITY

The impact of the integrated approach and innovation in the field of connectivity has been important. Three areas with significant impact are: new business and mobility models, better public transport, and optimised urban freight delivery and logistics.

New business and mobility models

Like other smart devices in 2030, the vehicle has become an integrated component in the internet of things, collecting and managing information from drivers, occupants, goods, other vehicles—thereby giving it a significant place in the global, integrated and connected multimodal mobility system. Connected mobility makes it possible to provide citizens, companies and transport operators with new services such as:

- Door-to-door mobility services: integrated multimodal transport systems based on new vehicle and infrastructure concepts and new integrated travel information systems accessible for all users;



European
Automobile
Manufacturers
Association

- Safety services: beyond the first eCall step, C2X communication systems and technologies enable new efficient safety services, automating some functions such as road hazard warning and red light violation warning;
- Navigation and location services: C2X communication systems and technologies enable new, valuable efficient services gathering real time road information and sharing it widely. Moreover, they include smart parking tools connecting people who have a parking space and those who need one, supported with simple non-cash payment mechanisms;
- Infotainment: web-based, video chatting with friends, watching TV and doing office work during commuting are some of the new functions enabled by connected and autonomous driving vehicles;
- Insurance services: mobility on demand and the sharing economy require new insurance services adapted to new demands. The tariffs are transparent and the premiums are adaptable;
- Payment and commerce services: the emergence of integrated mobility services is supported by smart payment services and platforms giving access to related services;
- Aftersales and fleet management services: remote monitoring and intervention are now spread out, reducing the costs and simplify maintenance. When components are due for inspection or change, vehicles advise the dealer and the owner and suggest a local solution.

Concerning data management, automobile manufacturers have proceeded with total respect for transparency, customer's choice, data protection, data security and privacy protection – both for vehicles' process data or user-introduced data. New business models are in 2030 a reality thanks to a good understanding by cities and industry of new market requirements, new distribution channels, the convergence of different development lifecycles and a collaborative approach for their co-development and implementation.

Better public transport system

The impact of an integrated approach and the connectivity revolution on the public transport systems has been significant

In 2030, public and private transportation – covering both passengers and goods – belong to a single connected network that increases efficiency and avoids congestion, saves time and resources, lowers emissions and improves safety. Cities no longer face social, physical and time-related barriers, but are integrated and based on free movement – thus contributing to the connection of regions, cities and people.



European
Automobile
Manufacturers
Association

A good public transport system has increased the possibility for industry to recruit students, researchers and other competent employees from all over the world and has strengthened commerce as well. Efficient public transport systems have eased the transport pressure on city centres and made space available for the benefit and pleasure of citizens and society.

The new generation of public transport has no local emissions and is quiet. It can be used in a completely new fashion, bringing it closer to the user.

The public transport system is no longer a collection of separate systems but is now an integrated and seamless system with one user interface, despite the number of suppliers and transport means. The traveller only needs to select a destination and time and an intelligent transport system chooses the best solution based on the traveller's needs and preferences. The system combines different means of transport smoothly, such as bus, car and bicycle, through interoperable ticketing and multimodal information.

Autonomous and/or semiautonomous buses ensure urban transport is even more efficient by, for instance, increasing loading factors. This has allowed for vehicles and vehicle combinations of different sizes to find customers whenever required, instead of being fixed to fixed routes. This contributes to new and flexible commuting corridors. Intelligent transport systems make full synchronisation possible. This is a major enabler for connecting different parts of a city in an efficient and customer-oriented network of public transports.

Public transport users are demanding customers who insist upon high-quality and user-friendly services that provide fast connections, on demand availability, accessibility and affordability. Safety and security are, together with minimal environmental impact, additional requirements from users. Sources of financing are not only public but they are also provided by companies and users. Costs and prices are transparent and the latter change depending on the services provided.

Optimised urban freight delivery and logistics

Freight delivery and logistics have clearly benefitted from a systematic implementation of an integrated approach and greater connectivity.

In 2030, the delivery and collection of goods in urban areas continues to have a major impact on the economic power, quality of life, accessibility and attractiveness of cities. Urban freight delivery and logistics have adapted to new consumer demands by implementing innovative distribution systems, thanks to an adapted transport infrastructure. Urban traffic flows have improved following stable and harmonised rules.



European
Automobile
Manufacturers
Association

Shippers use tailor-made urban logistics solutions and have access to cheap storage capacity. They provide daily combined deliveries and parking or loading/unloading facilities in cities. Freight carriers know and are fully aware of any possible traffic restriction policies since they are all based on harmonised guidelines. All shippers have real time information systems fitted in their modern, clean and silent fleets. They make full use of the advantages provided by loading units allowed by flexible regulations.

Residents demand 'green' city logistics solutions through less polluting and safer vehicles. They fully respect loading and unloading areas and accept and support activities of goods vehicles away from peak hours. Policy-makers put forward efficient and cost-effective city logistics measures that promote the use of less-polluting and right-sized urban freight vehicles, ensuring the safety of road users and pedestrians.

Vehicle manufactures have enhanced the safety of their vehicles through active safety systems while reducing the operational costs of vehicles thanks to incentives that support investments in more efficient vehicles and systems.

Facing an expansion of e-commerce activities, new last mile delivery solutions have been implemented that improve efficiency and reduce the cost of this (expensive) part of the supply chain. Last mile connected vans have been adapted to improve consumer service, security and quality of delivery, while taking into account environmental and economic constraints.

URBAN ACCESS RESTRICTIONS

However, one key prerequisite that allowed for all these achievements is the fact that policy makers have understood the need to consider restrictive measures only when they perfectly fit with the sustainable urban mobility plans of the city.

Successful Access Restriction Schemes (ARS) in 2030 are those that provide for easy access to information on how the scheme works, are clear, transparent and above all technologically neutral and non-discriminatory. They do not hinder necessary and appropriate infrastructure improvements or provisions. The implementation of such ARS has never disrupted businesses, nor has it increased inequalities between city and suburban residents. Information about these schemes' impact is reliable and easy to consult. This is particularly true for: investment/operating costs (urban economy), environmental effects (acceptable limits for the environment) and livability (equity between winners and losers, e.g. residents versus commuters).



European
Automobile
Manufacturers
Association

In 2030, the EU institutions fully respect the principle of subsidiarity and refrain from promoting one specific traffic management tool over another, including Low Emission Zones. LEZs consist of area licensing or entry permits schemes that are applied to restrict access to specific areas. They constitute one among many other management tools. Local authorities decide which traffic management tools seem appropriate given the local requirements. The European Commission has in its 2030 guidelines a common methodology and criteria for those cities that have introduced or are considering LEZs, thus avoiding a European patchwork that would result in transport becoming increasingly expensive because of divergent regulations.

LEZs in 2030 are based on vehicle emission types. In the EU, the Euro standards are the basis on which vehicles are classified according to their environmental performance. The Euro standard is clearly mentioned in the registration documents of all vehicles. This is a non-discriminatory approach that places compliance with existing emissions standards in the forefront. This way, investments made by consumer and operators are safeguarded. Clear and measurable objectives are required when introducing LEZs. Moreover, the real social, environmental and economic impacts of every LEZ are systematically assessed by the cities.

LEZ schemes are used by cities as tools to help them meet EU air quality legislation embedded in a broader local mobility strategy that takes into account regional, national and other urban mobility measures and objectives.

CONCLUSION

Cities are places of innovation, they drivers of our economy and places where wealth and jobs are created. At the same time urban areas are characterised by density: of people, activities, interactions and economic, social and cultural functions. Thus, cities are where the opportunities and threats to sustainable development come together. In this context, the three pillars of sustainability (the economy, society and the environment) have all to be treated with equal importance. The future will bring a transportation landscape in which private cars, buses, freight, pedestrians, bicycles and rail will be woven into a connected network; saving time and resources, producing lower emissions and congestion, and promoting efficient land use and improved safety.



European
Automobile
Manufacturers
Association

ABOUT ACEA

ACEA's members are BMW Group, DAF Trucks, Daimler, Fiat Chrysler Automobiles, Ford of Europe, Hyundai Motor Europe, Iveco, Jaguar Land Rover, Opel Group, PSA Peugeot Citroën, Renault Group, Toyota Motor Europe, Volkswagen Group, Volvo Cars, Volvo Group. More information can be found on www.acea.be.

ABOUT THE EU AUTOMOBILE INDUSTRY

- Some 12.1 million people - or 5.6% of the EU employed population - work in the sector.
- The 3.1 million jobs in automotive manufacturing represent 10.4% of EU's manufacturing employment.
- Motor vehicles account for €396 billion in tax contribution in the EU15.
- The sector is also a key driver of knowledge and innovation, representing Europe's largest private contributor to R&D, with €41.5 billion invested annually.

European Automobile Manufacturers' Association – ACEA
Avenue des Nerviens 85 | B-1040 Brussels | www.acea.be
T +32 2 732 55 50 | M +32 485 886 647 | F +32 738 73 10 | info@acea.be | [@ACEA_eu](https://twitter.com/ACEA_eu)