China Transport Policy Briefing
The Periodical Update of GIZ in China

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- SAE publishes plan for hydrogen corridor in the Yangtze River Delta
- Twelve ministries jointly launch Action Plan on Green Mobility (2019—2022)
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<td>Advanced Driver Assistance System</td>
<td>高级驾驶辅助系统</td>
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<td>AEB</td>
<td>Automatic Emergency Braking</td>
<td>自动紧急制动系统</td>
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<td>APEC</td>
<td>Asia-Pacific Economic Cooperation</td>
<td>亚洲太平洋经济合作组织</td>
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<td>BEV</td>
<td>Battery Electric Vehicle</td>
<td>纯电动汽车</td>
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<td>CAFC</td>
<td>Corporate Average Fuel Consumption</td>
<td>企业平均燃料消耗量</td>
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<td>CEV</td>
<td>Clean Energy Vehicle</td>
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<td>Electric Toll Collection</td>
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<td>General Administration of Customs</td>
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<td>National Energy Administration</td>
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<td>NEB</td>
<td>New Energy Bus</td>
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<td>National Technical Committee of Auto Standardization</td>
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<td>OBU</td>
<td>On-Board Unit</td>
<td>车载装置</td>
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<td>Original Equipment Manufacturers</td>
<td>整车生产企业</td>
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<td>VAT</td>
<td>Value Added Tax</td>
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<td>V2X</td>
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<td>SAE</td>
<td>China Society of Automotive Engineers</td>
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<td>STA</td>
<td>State Taxation Administration</td>
<td>国家税务总局</td>
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1. Draft on adjustment of Dual Credit System

On 9 July 2019, the Ministry of Industry and Information Technology (MIIT) presented a draft for comments on the dual credit system used to reward or penalise carmakers based on their share of NEVs and Corporate Average Fuel Consumption (CAFC). The NEV quota for manufacturers will be raised by 2 percent annually, rising to 14 percent in 2021, 16 percent in 2022 and 18 percent in 2023, requiring increased efforts by manufacturers to meet the quota. The difficulty was increased further by adjusting the calculation for NEV credits per vehicle, lowering the points attainable per vehicle. However, the overall calculation has also been adjusted to reflect the contribution of Low Fuel Consumption Vehicles (LFVCs), possibly lowering the required amount of NEV credits despite the increased NEV quota. At the same time, this has a positive impact on CAFC credits. Furthermore, additional rules concerning the transfer of NEV credits into the following years have been introduced.
On 24 May 2019, the Ministry of Finance (MoF) and the State Taxation Administration (STA) announced new regulations on the taxation of vehicle purchases. In the future, the vehicle purchase tax for taxable private vehicles will be based on the actual invoice price, excluding VAT. This tax must be paid only once: when trading second-hand vehicles for which this tax has already been paid, no purchase is due for the buyer.

MOF and STA further announced on 28 June 2019 that the vehicle purchase tax concession policy from December 2017 was to be extended until 31 December 2020. According to this regulation, electric, plug-in hybrid, range extender and fuel-cell vehicles licensed for sale in China are exempt from vehicle purchase tax, as long as the vehicle model and manufacturer comply with a list of requirements such as product quality assurance, safety monitoring and battery recycling. While the specific criteria are not publicly available, the Chinese government continuously updates a list of New Energy Vehicles (NEVs) which fulfil the above mentioned requirements.

The new regulation is complementary to the Vehicle Purchase Tax Law of the People’s Republic of China which came into effect on 1 July 2019.
3. State Council enables recycling of scrapped vehicle parts

中华人民共和国国务院令第715号《报废机动车回收管理办法》

On 22 April 2019, the State Council ordered a new administrative measure for the recycling of scrapped vehicles. It is the first substantial change in recycling legislation since 2001 and came into effect on 1 June 2019. The new regulation enables the selling and reusing of scrapped vehicle parts with the permission from local authorities. A distinction must be made between the five key parts (engine, steering gearbox, gearbox, front and rear axles, vehicle frame) and the remaining components. The disassembly and reuse of the five key parts is only permitted by qualified companies and must meet certain requirements, whereas the sale of all other used components is permitted after they have been clearly marked as recycled parts from scrapped vehicles.

4. Export of second-hand vehicles to be promoted in selected regions

关于支持在条件成熟地区开展二手车出口业务的通知

On 5 May 2019, the Ministry of Commerce (MofCom), the Ministry of Public Security (MPS) and the General Administration of Customs (GACC) jointly announced their support for second-hand vehicle export and officially started related work. The first ten regions to initiate second-hand vehicle export are the cities Beijing, Tianjin, Shanghai, Qingdao and Xiamen as well as the provinces Zhejiang, Shandong, Guangdong, Sichuan and Shaanxi.
5. Improvements in the areas of NEVs and ICVs aim at boosting domestic consumption

To ensure China can rely on strong domestic consumption as a driver for growth, the National Development and Reform Commission (NDRC), the Ministry of Ecology and the Environment (MEE) and MofCom jointly announced the “Implementation Plan on Upgrading Consumer Goods and Improving Resource Re-Utilization 2019-2020”.

For the automotive industry, the Plan re-emphasizes the mission to stimulate the second-hand car market and creating a green vehicle recycling industry. Furthermore, the Plan specifies the following key targets:

(1) Reducing the costs of traction batteries and thereby NEVs over the next two years by developing and industrialising new generation batteries and improving battery energy density and safety, as well as standardising batteries and creating the potential for universal application scenarios such as in battery sharing; (2) Strengthening the development of intelligent vehicles through a deepened cooperation between key enterprises in the fields of automobile manufacturing, information technology and internet on the topics of on-board sensors, chips, central processing units and operating systems; (3) Moving from restrictions on the purchase of passenger vehicles towards local policies guiding behaviour according to environmental concerns, congestion and transport demands (e.g. restrictions on vehicle registration within congestion zones); (4) Removal of all purchase and driving restrictions on NEVs; (5) 80% of public transport, sanitation, postal, rental, commuter and light logistics vehicles in key air pollution prevention and control areas shall be NEVs or Clean Energy Vehicles (CEVs) by the end of 2020.
6. China’s NEV and ICV industries aiming to attract foreign investments

On 30 June 2019, NDRC and MofCom jointly released a revised catalogue of industries in which foreign investments will be encouraged, valid from 30 July 2019. Additionally, two updated negative lists (1,2) of industries where foreign investment will either be prohibited or restricted were published, taking effect on the same day.

More than 80 percent of the newly added or revised items in the nationwide catalogue are related to the manufacturing industry. High-end manufacturing, intelligent manufacturing and green manufacturing shall encourage foreign investments, specifically 5G core components, chip packaging equipment, cloud computing equipment. The revised catalogue promotes investments in research, development and manufacturing of key components for intelligent and connected vehicles (ICVs), such as vehicle operation systems, information control systems and vehicle network communication system equipment. Overall, the revised catalogue stimulates many areas within the NEV industry in order to receive foreign investments, including hydrogen fuel-cell technologies and electric vehicles. Moreover, rail traffic, aviation and maritime transport also encourage foreign investment in the construction and operation of the respective infrastructure, as well as the design, manufacturing and maintenance of equipment in these sectors. Lastly, the catalogue includes a section which specifically encourages foreign investments in certain sectors in economically weaker regions in Central and Western China.

Overall, the 2019 negative lists have been shortened, while the encouraged catalogue has been extended.
On 15 May 2019, MIIT and the National Technical Committee of Auto Standardization (NTCAS) published two working plans for the development of standards in the NEV and ICV industries.

The NEV Working Plan specifies key areas for the development of NEV and infrastructure standardisation. These include charging and hydrogen fuelling systems, battery recycling and the safety and energy consumption of NEVs. The ICV working plan not only aims at accelerating the revision of existing key standards such as for Advanced Driver Assistance Systems (ADAS) and Automatic Emergency Braking (AEB), it also seeks to develop new standards to comprehensively cover as many areas as possible.

While general participation in the international standardisation process (such as the formulation of standards for safety, information security or requirements for test scenarios) is encouraged, international cooperation is highlighted for both Working Plans. Specifically, the Plans aim at consolidating the cooperation with key players such as the EU and Germany as well as gradually establishing an exchange mechanism along the Belt and Road Initiative (BRI) and the Asia-Pacific Economic Cooperation (APEC).
On 12 June 2019, Jiangsu Province released an Action Plan for promoting the development of its ICV Industry. Through the integration of research and industry, Jiangsu plans to become the national leader for core parts of ICVs. The Action Plan defines the goal of increasing the market value of the industry to over 100 billion RMB by 2021. For this goal, vehicle manufacturing, electronics, communications, and transport will be promoted, and two to three nationally leading industry agglomerations will be established in Jiangsu.

The plan focuses on speeding up the establishment of a new research and development platform for ICVs, and promoting the development, testing and demonstration of L3 and L4 self-driving cars. To this end, key Original Equipment Manufacturers (OEMs) in the larger cities of the Province (i.e. Nanjing, Wuxi, Changzhou and Suzhou) are foreseen to exploit the potentials of sensor fusion, artificial intelligence, big data and virtual simulation. Furthermore, these cities shall promote the installation of Driver Assistance Systems (L2 and L3 levels) for commercial vehicles such as buses, trucks, medical vehicles, tour buses and sanitation vehicles. The city-cluster is also to be the province’s focal area for innovations in the area of Internet of Vehicles (IoV), including cellular vehicle-to-everything (C-V2X) and 5G technologies.

The Action Plan also promotes the establishment of comprehensive testing, evaluation and verification systems for laboratory, closed road, semi-open and open road conditions. National inspection and testing bases for ICVs are to be built in Wuxi, Changzhou and other places will be built.
9. Charging infrastructure and power grid integration part of energy storage plan

On 25 June 2019, NDRC, MIIT and the National Energy Administration (NEA) have jointly released an Implementation Plan for the promotion of energy storage technology and related industries. The plan will be effective from 2019 to 2020 and is based on a guideline published in 2017. It emphasizes further research on the integration of charging infrastructure into the power grid. Moreover, the Plan stresses the need for optimising energy storage-related infrastructure for NEVs, such as promoting simultaneous and integrated design of parking and charging facilities as well as an integrated development of the energy and transport sector.

10. Chinese bus fleets expected to be replaced by New Energy Busses

On 8 May 2019, MoF, MIIT, the Ministry of Transport (MoT) and NDRC jointly announced several measures to promote the application of New Energy Buses (NEBs) in China. They require all provinces, autonomous regions and autonomous cities to submit implementation plans and timelines by August 2019 for replacing their bus fleet with NEBs. Furthermore, while local governments can still take advantage of the fuel subsidy fund distributed by central financial authorities in and before 2019, from 2020 onwards, subsidies for NEBs shall be replaced by supply-side support.
11. **Beijing to promote taxi operators switching to NEVs**

On 16 July 2019, Beijing published a notice on subsidising taxi operators in switching to BEV taxis. The subsidies compensate for the high purchase price of traction batteries and will be in effect until 31 December 2020, with an upper limit of 73,800 RMB (approx. 9,600 EUR) each. The following technical criteria need to be met: Firstly, the range of the new vehicle must be no less than 300 km. Secondly, the vehicle has to be compatible with both plug-in charging and battery swap technologies, mainly based on express battery swap technologies. Thirdly, the battery’s lifetime needs to be able to exceed 8 years or 600,000 km with a capacity of 80% or above.

12. **Shenzhen City promotes the New Energy Construction Vehicle Industry**

On 4 July 2019, the Shenzhen bureau of MIIT has announced that it plans to promote its local industry of new energy construction vehicles, which produces e.g. dump trucks, cement mixer vehicles, and container tractors, but also municipal service vehicles such as logistics lorries and sanitation vehicles. Shenzhen plans to attract companies in the new energy construction vehicle industry and establishes a respective new industry cluster. To this end, the city plans to explore further the lithium-ion battery technology and establish research and development and production centres for battery systems with high energy density and long life-cycles.
On 17 June 2019, the MIIT Equipment Industry Development Center published a notice on strengthening the safety management of NEVs through the implementation of post-sales safety checks and investigations to be performed by NEV manufacturers.

For commercially-owned vehicles, such as taxis, logistics vehicles and buses, the share of inspected vehicles depends on the mileage status that can be expected from the respective batch of vehicles. Out of the vehicles from the batch likely to not yet have reached a mileage status of 100,000 km, only 5% need to be inspected. With increasing mileage status and thus increasing risk of damage or tear and wear, the share of vehicles to be inspected rises correspondingly. Out of NEVs with an expected mileage between 100,000 – 200,000 km, no less than 10% of the batch need to be inspected. For those with an expected mileage of more than 200,000 km, the share is as high as 20%. Additionally, troubleshooting should be increased appropriately for NEV models with a higher occurrence of battery problems.

For privately-owned vehicles, manufacturers need to inform consumers under which conditions vehicles are due for maintenance and ensure monitoring of sold vehicles to be able to warn consumers of damage or maintenance needs. Manufacturers are also required to include corresponding information in their annual reports.
On 21 June 2019, MIIT announced that the Regulations on the Standards of Automotive Traction Battery Industry, published on 24 March 2015, are abolished with immediate effect. With these regulations, the four published traction battery enterprise catalogues (the so-called white list) also lose their validity. This white list included all battery manufacturers that met the conditions of these standards.

Previously, NEVs were only eligible for subsidies if they used traction batteries from battery manufacturers which were part of the white list. Various foreign battery manufacturers like Panasonic, LG Chem or Samsung SDI did not meet the requirements and therefore did not appear on the white list.
15. Zhangjiakou aims to become leader in hydrogen energy technologies by 2035
张家口氢能产业发展规划(2019-2035)

Zhangjiakou, host city of the 2022 Winter Olympics and hydrogen frontrunner in China, has issued a long-term Development Plan for its hydrogen energy industry on 12 June 2019. By 2021, Zhangjiakou wants to produce 21,000 tonnes of hydrogen yearly, based on a related industry of 6 billion RMB (approx. 780 million EUR). By 2035, the renewable energy pilot city targets an increase towards 50,000 tonnes of hydrogen output per year and a hydrogen energy industry valued at 170 billion RMB (approx. 22 billion EUR).

Measures to reach these goals include establishing a system for the preparation, storage, transportation and refuelling of hydrogen, as well as the manufacturing of fuel cell vehicles and key parts. In addition, research institutes and development and service platforms are to be set up to support the development of the sector. Another goal is the local manufacturing of core components such as fuel-cells.
On 24 May 2019, the China Society of Automotive Engineers (SAE) published a Plan for the Development of a Hydrogen Corridor in the Yangtze River Delta, which aims at providing a region in China as large as Germany with reliable hydrogen infrastructure. The Yangtze River Delta around Shanghai is China’s largest and economically strongest Metropolitan Region, with more than 150 million inhabitants. With support from regional and local authorities, SAE proposes to successively expand the hydrogen fuel infrastructure starting from Shanghai, eventually reaching as far as the outer borders of the neighboring provinces of Jiangsu, Anhui and Zhejiang. The objective is to raise the reach for an increasing number of hydrogen fuel-cell vehicles and to support the development of the corresponding hydrogen industry. According to SAE’s plan, by 2030, the number of hydrogen-fueled cars in the area shall reach 200,000, the number of hydrogen fuel stations shall exceed 500, and more than 20 highways shall be serviced with hydrogen fuel stations.
17. Chinese road freight industry to become greener and more efficient

Aiming at a development towards a sustainable road freight industry, the State Council released an Announcement on the Transformation and Upgrading of the National Road Freight Industry. The Announcement, released on 7 May 2019, is supported by MoT, MIIT, MEE as well as NDRC. It encourages industry associations and company alliances and promotes both standardisation and new transportation modes, such as trailer sharing or swapping transport. It formulates measures in three key areas:

NEVs:
NEV commercial vehicles shall be subjected to less restrictions than commercial vehicles with combustion engines, such as preferential entrance to designated zones;

Dangerous Goods:
Safety measures shall be formulated, general national standards for vehicle tanks shall be revised and the management system of road transport escorts shall be improved;

Intelligent transport:
Road freight companies shall be encouraged to build information systems and connect with manufacturers, as well as develop new transport modes such as automated carriers.
18. Digitalisation to improve mobility and logistics

On 25 July 2019, MoT published a plan for the digitalisation of the transport sector. With data as the key driver, MoT plans to improve the quality of mobility and logistics services. Until 2025, data collection and connected transport systems will be introduced. The application of big data in the transport sector will be promoted. Furthermore, the BeiDou navigation system, 5G technology as well as a new generation of satellite communications systems are planned to be applied on an industrial scale. Until 2035, the transport infrastructure shall undergo a complete digitalisation and a comprehensive traffic information and control network shall be established. Moreover, research and development of autonomous driving and V2X technologies will be fostered through the construction of special test sites. Enterprises will be encouraged to explore synergies by establishing innovation alliances across the industry, and actively participating in pilot projects. Transport departments on all levels will provide funding to promote the digital development of the transport sector. Regional digital transport pilot programs will be launched in key areas including the mega agglomerations around the economic and political centres of Beijing, Shanghai and Hong Kong, as well as the economic region along the the Yangtze River. From Yunnan and Sichuan Province in the very West to Shanghai in the very East.
19. Beijing tasks its districts with establishing ICV testing routes and areas

关于印发《北京市自动驾驶车辆测试道路管理办法（试行）》的通知

At the end of 2018, Beijing announced to expand its ICV testing area to 500 km², and its testing road network to 2,000 km. Half a year later, in June 2019, Beijing has now published a draft of measures on how to manage and administrate this expansion via the Beijing Municipality Test Road Management Measures for Autonomous Driving Vehicles (Trial Version). Beijing’s districts are to draft plans and risk assessments for ICV testing routes and areas in their jurisdiction, using the annexes distributed with the policy. The documents are to be submitted to the Beijing Joint Working Group of Autonomous-Driving Management, which was established in 2017 and comprises of municipal transport, public security, and industry and information technology authorities. After selecting the schemes, the district governments will be responsible for the project management and construction of special street and test road signs, while the Working Group will ensure test routes and areas will be inspected and patrolled.
Hainan, China's flagship province for promoting the NEV industry, released a long-term developing plan for provincial charging infrastructure over the next ten years. The target: reaching 1 million NEVs and 940,000 charging piles until 2030. This would equal a car-to-pile ratio of almost 1:1, a major improvement from the current 5:1 with only 4602 charging piles.

To support the plan, Hainan's Finance Bureau plans to invest a total of RMB 25.52 billion (ca. EUR 3.3 billion) between 2019 and 2030.
In May 2019, China continued to pave the way for the promotion and wide application of Electric Toll Collection (ETC) systems. ETC systems charge vehicle toll fees electronically without requiring them to stop, which reduces congestion.

In a notification on the reform of the highway toll charging system from 16 May 2019, MoT has formulated a framework for the improvement of automatic license plate recognition, electronic payment methods and general technical and operational conditions at highway toll stations. Moreover, from July 2020 on, new vehicles shall be directly equipped with ETC technology. An implementation plan, issued on 28 May 2019, defines the milestone that by the end of December 2019 more than 180 million users nationwide and 90% of all highways will be covered with the ETC systems. MoT has also announced free installation of vehicle-mounted On-Board Units (OBUs) for ETC and the expansion of the installation service network. It aims at an installation rate of OBUs in all provinces of at least 80%. State-owned vehicles and ambulances, fire trucks and police vehicles are the first to install and use OBUs for ETC, which will be completed by the end of July 2019. Road transport operators are to implement ETC for their operating fleets until the end of December 2019.
On 20 May 2019, twelve Chinese ministries and administrations, including MoT, NDRC, and MEE, jointly launched the Action Plan on Green Mobility (2019–2022) to improve green (i.e. environmentally and climate-friendly) mobility.

To establish a comprehensive transportation service network, the Action Plan emphasizes the integration of inter-city transportation and stresses the improvement of passenger transport services through multi-modal passenger transportation and barrier-free transport, as well as real-time information for public transport users.

Non-motorised transport shall be promoted: pedestrians and cyclists for instance will be better considered in road layouts. Moreover, there will be improved enforcement in parking restrictions on bicycle lanes and around public transport stations.

Significant measures to improve mobility in cities are reduced car use, better enforcement of parking management, refined traffic management and integrated new mobility services. In addition, to upgrade the ‘hardware’ of green mobility, NEVs and corresponding charging infrastructure will be promoted. Finally, the Action Plan emphasises the positive impacts of green mobility and the establishment of public participatory mechanisms.
Xiong’an New Area, the planned model city 100km from Beijing, decided to strengthen its regulations on off-road and heavy-duty diesel vehicles in order to reduce mobile source pollutants in the area. Off-road vehicles such as cranes and other construction machinery with diesel engines will be subject to strict supervision, including frequent testing and licensing, and must all be equipped with GPS to be able to monitor their location. Furthermore, starting from 1 January 2020, heavy-duty diesel vehicles used for construction and material transport need to meet CHINA V emission standards (broadly equivalent to EURO V). By 2020, all vehicles used for public transportation, sanitation and logistics purposes shall be replaced with NEVs.