Key Recommendations

1. Set Up a Committee of Policy and Regulation for the Automobile Industry to Ensure Transparency and Enough Lead Time for Automobile Manufacturers
   - Improve coordination among relevant government agencies and streamline administrative red tape, especially repetitive tests and approvals.
   - Centralise authority within one governmental agency for homologation/type approval.
   - Clarify the administrative responsibilities of the various ministries regulating the automotive industry.
   - Consult with industry stakeholders for comments when introducing new rules and regulations and allow industry ample time to adjust to new rules.

2. Remove Limitations on Foreign Investment
   - Allow free foreign investment in the automotive industry without limitations.

3. Establish Technology-neutral Targets and Equal Treatment in E-mobility, Fuel Efficiency and Environmental Performance
   - Set fuel-efficiency and environmental performance targets for the automotive industry, and do not prescribe technological pathways.
   - Promote a level playing field for imports and local products, and technology neutrality in new-energy vehicle (NEV) policy schemes to improve consumer acceptance of NEVs and drive market growth.

4. Allow Imports of Auto Components, Used Vehicles and Used Auto Components for the Purposes of Remanufacturing Development, and Research and Development (R&D)
   4.1 Allow Imports of Used Auto Components and Improve Relevant Regulations to Promote the Development of the Remanufacturing Industry
      - Revise the Category of Old Parts Prohibited for Importation to enable cores importation for remanufacturing.
      - Promulgate competent regulations and policies that facilitate market circulation of remanufactured products.
      - Roll out more incentives to raise consumer awareness of remanufactured products and encourage consumption of these products.
   4.2 Allow Imports of Used Vehicles and Parts for R&D Purposes
      - Amend the Forbidden Import Catalogue of Used Machinery and Electronic Products and the Administration Rules of Machinery and Electronic Products Import or issue supplementary regulations that permit imports of used vehicles and used parts for R&D purposes.

5. Restructure the Tax System to Promote Fuel Efficiency and Combat Local Protectionism
5.1 Link Vehicle Tax to Fuel Consumption and Carbon Dioxide ($CO_2$) Emissions
   • Replace the current consumption tax and vehicle-purchase tax based on engine displacement with a
   tax scheme based on $CO_2$ emissions or fuel consumption per kilometre.

5.2 Restructure the Tax System to Combat Local Protectionism
   • Reform the current tax system to balance the division of tax revenue.

6. Implement Strict Enforcement of Safety Rules
   • Enforce strict annual vehicle safety inspections and random road-side safety inspections.

7. Adopt Holistic and Broader Policy Perspectives Related to Vehicle Digitalisation in Order to Address a Number of Legal and Political Issues as a Whole
   • Secure data access via manufacturers’ backend systems to ensure vehicle safety.
   • Form vehicle data categories with different access rights according to the functionality required.
   • Carry out new forms of political and legislative support to keep pace with increasingly rapid technological developments.

Introduction to the Working Group

The Automotive Working Group is composed of European manufacturers and importers of passenger vehicles, commercial vehicles, automotive components (including tyres) special vehicles and automated systems. The Automotive Working Group currently has 56 member companies and works closely with the Auto Components Working Group. The core members of the Automotive Working Group are also member companies of the European Automobile Manufacturers’ Association (Association des Constructeurs Européens d’Automobiles, ACEA).

Recent Developments

Market Developments
In 2015, the growth of the automotive sector experienced a notable slowdown. A total of 23.8 million automotive units were sold in China (a 1.3 per cent increase over 2014). Of this total, 18.1 million were passenger cars (a 3.8 per cent increase). Heavy truck sales shrunk by 34 per cent compared to 2014, down to 350,000 units.

Driven by China’s rapid urbanisation, the mobility of goods and passengers will continue to expand and sales of new and used vehicles will continue to thrive. A key challenge to this growth, however, will be addressing the negative impact of the use of automobiles. The advancement of technology and connectivity such as the Internet of Vehicles will drive the development of the automotive industry to shift towards a sustainable model which integrates all modes of transport into a complete system.

For this to happen there needs to be close cooperation among regulators, industry and other stakeholders.

New Business Opportunities
China has been the world’s largest automotive market since 2011. Although sales slowed down in 2015, it is still projected to grow for decades to come. The next market growth in China is expected to take place in the third-, fourth- and fifth-tier cities during the next five years as the first- and second-tier cities’ markets have been largely saturated. The working group sees that the new generation of Chinese consumers has expressed new mobility needs, which will impel new shifts in technology and facilitate the creation of new products and services. For example: car sharing, carpooling, self-driving cars and truck platooning are all concepts which are set to develop into widespread businesses
within the not-too-distant future.

Furthermore, overall, cars in China are now reaching an average age of five years, which normally leads to two important developments:

1) Increased demand for service and repair; and
2) More vehicles entering the used-car market.

Both of these developments will lead to the creation and growth of new industries such as professional workshops, vocational schools, used-car vendors, used-car evaluation services and used-car financing. The creation of a robust used-car market depends on the creation of a sound car financing system. In the shift from a manufacturing economy to a value-added and service economy, all of these new business opportunities will play a crucial role.

The Regulatory Environment of Mobility in China

China Manufacturing 2025 presents some new business opportunities. But in order to stay at the frontline of global developments, the Chinese Government must take a holistic approach to the design of efficient transport and mobility systems, which requires creation of modern regulatory frameworks. Regulatory work must be built on principles such as: promoting technology neutrality, enforcing rules and regulations, adopting a systematic approach, harmonising global standards and regulations, prioritising cost-effective solutions and recognising equal market access.

Unfortunately, the automotive industry in China (and mobility in general) is still confronted by a number of regulatory challenges, such as inconsistent regulations among different governmental authorities, an obvious deviation between local and national standards, time-consuming and uncoordinated certification procedures, and inadequate enforcement of rules and regulations. In combination, these issues have been constantly interfering with the normal functions of the market and have invited rule-bending behaviour from market players.

In addition, China has failed to address serious concerns about overcapacity in the automotive sector. For instance, China has an installed production capacity of 1.5 million vehicles per year, whereas long-term demand is expected to stabilise between 400,000–500,000 vehicles per year. Such overcapacity distorts normal market forces and diverts attention away from creating efficient mobility systems.

The situation has now become so severe that instead of being a facilitator for sustainable mobility of goods and people, the Chinese mobility system is currently one of the major causes of air pollution, road congestion and premature deaths (accidents and air pollution). As a result, the Chinese Government should leverage innovation to spur the development of value-added services within the automotive sector nationwide.

The Big Picture

Regulation of one area of an industry can influence another industry. For example: in other countries where the popularity of private cars has a longer history, cars are often used for long distance travel between cities. However, in China the use of cars for long journeys is still limited. This is partly because highways have not been fully taken advantage of. China’s highways are mostly occupied by heavy commercial vehicles which are often wrongly-specified, overloaded and driven by over-fatigued drivers. The combination of these factors often leads to dangerous traffic situations on the highways. Thus in China more and more private car owners choose to avoid driving between cities due to safety concerns.

If rules and standards for commercial vehicles were properly enforced, traffic safety on the highways would be better and as a result more cars would be sold in China. This example shows how the above issues are intimately related to the quality of the regulatory work and its enforcement.

The Automotive Industry, Environment and Technology

Vehicle discharge is a major source of air pollution in China, and the Chinese Government has adopted a number of measures to curb it. However, many of these measures overshoot the target. From the view of the Automotive Working Group, the most efficient measure is to encourage the relinquishment of old cars (especially energy-intensive trucks) and strengthen the enforcement of existing emission limits.

The Chinese Government conducted a massive subsidy programme on new energy vehicles (NEVs) last year. There was a surge in NEV cars and buses in Chinese cities, which is commendable from a local emissions and noise pollution point of view. However, NEVs alone cannot solve China’s urban air pollution
problems. Connectivity and renewable fuels are two other efficient ways to tackle these problems. The Chinese Government needs to put policies in place that are technology-neutral and that direct society to reach clearly-defined targets.

European companies hope to work with Chinese authorities to design truly sustainable transport and mobility solutions for China, recognising that no silver bullet exists any longer and that the future of sustainable mobility is a jigsaw puzzle of complementary technologies, fuels and system solutions. Such an approach, together with a better-connected mobility system, will improve road safety, free up parking space in cities, increase traffic efficiency, boost productivity and reduce pollution.

13th Five-Year Plan (13FYP)

<table>
<thead>
<tr>
<th>What’s in the 13FYP?</th>
<th>Five National Directions to be achieved by 2020 in the 13FYP:</th>
</tr>
</thead>
</table>

**Innovation**-driven growth
- CNY 90 trillion gross-domestic product (GDP)
- 6.5% bottom-line GDP growth
- 60% R&D contribution to GDP growth

**Coordinated** urbanisation
- 60% urbanisation rate
- 30,000km additional highway

**Green** environment
- CO₂ intensity per GDP: -18%
- High AQI day: >80%

Further **open-up**
- Two-way opening
- Negative list for all market players

**Shared** development
- Poverty alleviation
- +1 Year life expectancy

China’s 13FYP conveys three important messages of relevance to the automotive industry:
1. China aims to comprehensively promote bilateral opening, establish systematic mobility in the country, promote efficient allocation of resources and deep integration of markets, and accelerate the nurturing of new advantages in international competition within its automotive sector.
2. China has targeted the improvement of environmental performance and the strengthening of environmental governance in the automotive sector, in response to global climate change.
3. China will provide strong support for the development of NEVs, which is considered a strategic emerging industry, and push for innovation and industrialisation in emergent cutting-edge technologies.

**Evaluation of Existing Measures**

The Chinese Government has promulgated a number of regulations and policies during March–June 2016.

1. In March, China’s National Development and Reform Commission (NDRC) published the *Auto Sector Draft Antitrust Guidelines* for public consultation. They provide guidance for evaluating diverse common industry practices in the sector, mostly relating to the vertical relationship between automakers, auto parts manufacturers, distributors and after-sales services providers. The guidelines provide a series of exemption scenarios and outline the NDRC’s view on practices it considers anti-competitive.

2. In June, the Ministry of Environmental Protection (MEP) issued a call-for-comments on the *Limits and Measurement Methods for Emissions from Light-duty Vehicles* in order to reduce vehicle emissions, improve air condition and protect human health.

3. In June, the Ministry of Industry and Information Technology (MIIT) issued a call-for-comments on *Technical Specifications*
of Remote Service and Management System for Electric Vehicles, which defines the overall structure and function of remote service and management systems for electric vehicles. The purpose of this draft is to encourage the adoption of NEVs and strengthen safety supervision.

Industry Stance
As the automotive market adjusts to a more moderate rate of growth, inefficiencies will be harder to conceal and margins will be increasingly challenged. Only by allowing market-based dynamics to play out will the industry be able to escape a prolonged period of price-cutting, and the accompanying effects that this would likely have on automakers’ bottom lines.

China Manufacturing 2025

What’s in China Manufacturing 2025?
In China Manufacturing 2025, China sets very ambitious goals for developing the automotive sector:

1. **Smart cars**: By 2025, China aims to form the basic foundation for an indigenous smart car industrial chain and smart transportation system. Sixty per cent of automotive informatisation products and over 40% of driver-assisted and partially-automated (DA, PA) cars should be indigenous; sensors and controls should meet advanced international standards, grasp key actuator technology, and there should be one enterprise with supply scale in the top 10 of supplier companies in the world. Indigenous smart trucks are going to begin large-scale export and should be digitalised and network-capable.

2. **Energy-efficient and NEVs**: By 2025, China aims to form a complete independent and controllable energy-efficient vehicle industrial chain, with indigenous products to reach 50% market share. Fuel consumption standards for commercial-use vehicles should reach advanced international standards; domestically-produced key parts should surpass 80% market share. The average fuel consumption of passenger-use vehicles should be better than 4 litres/100km. Domestically-produced key parts should surpass 60% market share. Three enterprises with sales of energy-efficient vehicles should be in the top five worldwide. The reputation of indigenous products should surpass that of JV brands, with indigenous key products to reach 60% market share.

Evaluation of Existing Measures
Starting in 2015, many laws and regulations on NEVs have been enacted to echo initiatives taken by different ministries, including:

**General Office of the State Council:**

**Ministry of Transport (MOT):**
1. Suggestions for Facilitating the Promotion of NEV in the Transportation Industry (18th March, 2015)
3. Regulation on the Technical Management of Road Transport Vehicles (22nd January, 2016)

**Ministry of Environmental Protection and Ministry of Industry and Information Technology:**
1. Proclamation on Implementing the Fifth Phase of Motor Vehicle Emissions Standards (14th January, 2016)
Industry Stance

It is unclear how the China Manufacturing 2025 initiative relates to China’s plans to liberalise its investment regimes under the potential Comprehensive Agreement on Investment (CAI) with the European Commission.

If the Chinese Government is serious about technological advances and emissions reductions the European automotive industry strongly advocates the integration of renewable fuels as a major component in the future development of a sustainable mobility system.

The 13FYP and China Manufacturing 2025 are both complementary and contradictory. The European automotive industry possesses many technologies as well as the systemic knowledge to help to create a sustainable society with excellent mobility in, and between, China’s urban areas. The automotive industry overall is recognised as one of the most innovative in the world and as being integrated into complex global supply chains. However, China Manufacturing 2025’s targets for indigenous innovation—where foreign-invested companies with genuine R&D capabilities inside of China are excluded through the definition of ‘indigenous innovation’—create an unnecessary potential conflict zone. It also contradicts the 13FYP, which espouses to “comprehensively promote bilateral opening, encourage orderly international mobility in the country, the efficient allocation of resources, deep integration of markets and accelerate the nurturing of new advantages in international competition”.

Furthermore, the Catalogue Guiding Foreign investment and the Shanghai Free Trade Zone Negative List both retain ownership restrictions and equity caps on automobile manufacturing. Assuming the investment limitations remain, foreign companies that aim to help China reach its ambitious manufacturing targets would still be required to work with Chinese partners in order to do so. The Automotive Working Group sees such investment and ownership restrictions as outdated and as a barrier to full participation in the marketplace. Such restrictions will also hold back the full integration of the Chinese automotive industry into the global value chains.

European automotive manufacturers are committed to China and have made huge investments in this country. As such they should be defined as being indigenous. The Automotive Working Group expects European automotive companies to be treated the same as Chinese companies in China, in the same way that Chinese investments in Europe are automatically seen as ‘European’ from a legal perspective.

Key Recommendations

1. Set Up a Committee of Policy and Regulation for the Automobile Industry to Ensure Transparency and Enough Lead Time for Automobile Manufacturers

Concern

Multiple governmental agencies regulate the automotive industry in an uncoordinated manner, resulting in confusion over policy interpretation and inefficient work for the government, and unnecessary costs and barriers against technical innovation for enterprises.

Assessment

Automotive products in China are subject to more than one type approval/homologation system. Taking the example of heavy-duty trucks, a new heavy-duty truck model is first required to be type-approved by the MIIT, which ensures the model’s conformity to a set of technical standards including fuel consumption standards. Meanwhile, the model also needs to be approved for entering the market by the China Compulsory Certification (CCC) system, which is run by the Certification and Accreditation Administration (CNCA) under the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ).

In fact, most of the technical requirements for these two approvals are almost the same. However, automotive companies have to submit two different formats of test reports and technical data for approval by the MIIT and the CNCA respectively.

What’s worse, besides these two repetitive approval processes, which both include requirements on fuel emission standards, automotive manufacturers still have
to prove compliance with the current national emission standards to the Ministry for Environmental Protection (MEP) before they can put the vehicle into use. If the model is to be sold in Beijing, approval from the Beijing Environmental Protection Bureau is also mandatory.

And this is still not enough. A further approval by the MOT must be received before the truck manufacturers can receive a Commercial Transportation Permit for the truck model.

Finally, the truck model will need to be checked again by the Ministry of Public Security (MPS) in accordance with its own standard for vehicle safety, GB 7258, in order to receive a licence plate.

This uncoordinated function among different agencies not only doubles their own administrative burden but also incurs unnecessary cost for automotive manufacturers. Sometimes, those agencies have a different understanding of the same test results, which can create further problems for auto manufacturers. It is of no benefit to enterprises as it interrupts product development and affects customer satisfaction.

Recommendations

• Improve coordination among relevant government agencies and streamline administrative red tape, especially repetitive tests and approvals.
• Centralise authority within one governmental agency for homologation/type approval.
• Clarify the administrative responsibilities of the various ministries regulating the automotive industry.
• Consult with industry stakeholders for comments when introducing new rules and regulations and allow industry ample time to adjust to new rules.

Assessment

Such limitations run contrary to the main idea of China's present reform agenda where the direction is to “substantially reduce direct government allocation of resources, promote that resource allocation is based on market principles, market prices and market competition, to realize productivity maximization and efficiency optimization.”¹ In accordance with these principles, investors should be allowed to hold a share percentage which is proportional to the risk they are ready to take in an automobile company, which is how it works in the European market. As a number of Chinese investors in Europe benefit from this restriction-free investment environment, so the same market access should be granted to European investors in China.

The principle to “let the market play a decisive role in allocating resources”⁰ means that the government should set the rules for the industry and ensure strict enforcement of the same. Market forces will force industry restructuring and consolidation. With free ownership, investors can decide when, where, how and how much to invest in order to meet market needs. The European automotive industry is hoping to see ambitious market access opening in China's automotive market.

Recommendation

• Allow free foreign investment in the automotive industry without limitations.

3. Establish Technology-neutral Targets and Equal Treatment in E-mobility, Fuel Efficiency and Environmental Performance

Concern

Chinese authorities’ current focus on NEVs is narrowly defined, and with governments prescribing technological pathways for companies innovation is significantly hindered.

Assessment

Technology neutrality is key to encouraging innovation and is in line with the central leadership’s call for the market to play a decisive role.

² Ibid
A level playing field for imports and local products, in addition to technology neutrality, are also important for broadening consumer choice and driving substantial NEV development.

The future of mobility is and increasingly will be a jigsaw puzzle composed of a variety of competing and mutually complementary solutions. E-mobility is on course to become part of the mix of solutions to the challenges of carbon fuel dependency and other negative, environmental side-effects of mobility. Meanwhile, continuous technological development of energy sources, ranging from fuel cells to diesel, also contributes towards addressing the environmental challenges that the auto industry faces.

When the Energy Saving and New Energy Vehicles Industry Development Programme (2012–2020) was published in 2012, the government set out ambitious production and sales targets for the electric vehicle industry: in 2015, a cumulative total of 500,000 battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) were supposed to be in use. However, the reality is that this year far fewer than 500,000 NEVs were in use in China’s cities.

The automotive industry has consistently called upon regulators to adopt a technology-neutral approach, which is to let market forces play the decisive role in producing the desired outcome. The Chinese authorities should loosen its focus on NEVs as it is currently narrowly defined, and concentrate instead on setting fuel-efficiency and environmental performance targets and letting industry come up with the technological solutions enabling their products to meet these targets. For instance, BEVs are particularly suitable for short distance urban transportation, while PHEVs meet customer demands for mid-long distance travel.

In order to quickly develop a healthy and long-lasting e-mobility industry in China, a level playing field is required for all NEV manufacturers, both local and foreign. Incentives should be offered such as free number plates, tax exemptions and monetary subsidies, and entering relevant national catalogues should be made easier for foreign players. Shanghai set a good example in this respect by embracing imported PHEVs and BEVs and allowing them to enjoy similar treatment to domestic models, including awarding free licence plates.

**Recommendations**

- Set fuel-efficiency and environmental performance targets for the automotive industry, and do not prescribe technological pathways.
- Promote a level playing field for imports and local products, and technology neutrality in NEV policy schemes to improve consumer acceptance of NEVs and drive market growth.

**4. Allow Imports of Auto Components, Used Vehicles and Used Auto Components for the Purposes of Remanufacturing Development, and R&D**

**4.1 Allow Imports of Used Auto Components and Improve Relevant Regulations to Promote the Development of the Remanufacturing Industry**

**Concern**

Although remanufacturing has been identified as being an eco- and environmentally-friendly industry, as well as one that is, in theory, encouraged by the Chinese Government, auto parts remanufacturing companies are still facing challenging regulatory bottlenecks to their business operations in China, especially in terms of the sources of auto parts for remanufacturing.

**Assessment**

It is encouraging to see that the Chinese Government has released a number of policies and planning documents since 2005, recognising the remanufacturing industry as an eco- and environmentally-friendly industry that should be supported. In addition, the recently released 2015 Circular Economy Promotion Plan and the China Manufacturing 2025 initiative both further endorsed the importance of the remanufacturing industry. Furthermore, four ministries released an incentive programme in 2013, to subsidise customers trading in used parts for remanufactured parts.

Despite these efforts, remanufacturers are still facing severe regulatory bottlenecks to ramp up their scale of production. Current regulations place restrictions on obtaining cores for remanufacturing both from overseas and domestic markets. Moreover, various obstacles, such as value-added tax (VAT) deductions, challenge the market circulation of remanufactured products due to a lack of competent regulations and policies supporting reverse logistic systems, which is separating this unique category of products from new
parts distribution. There is a strong business case for permitting remanufacturing products, though. Since remanufactured products are guaranteed for equal quality standards and even the same warranty terms as new parts, the Chinese authorities should not be concerned whether customers’ interests are damaged provided remanufactured products are used within the warranty period.

**Recommendations**

- Revise the *Category of Old Parts Prohibited for Importation* to enable cores importation for remanufacturing.
- Promulgate competent regulations and policies to facilitate market circulation of remanufactured products.
- Roll out more incentives to raise consumer awareness of remanufactured products and encourage consumption of these products.

### 4.2 Allow Imports of Used Vehicles and Parts for R&D

**Concern**

The restrictions on importation of used vehicles and auto parts harms innovative domestic companies by increasing R&D costs, and also severely limits their opportunities to take overseas R&D orders and to learn international technologies.

**Assessment**

Complete vehicles, vehicle engines and most automotive components are listed in the *Forbidden Import Catalogue of Used Machinery Products*. The regulations on restrictions of importation of used vehicles and auto parts were put in place over 10 years ago. They are outdated and have created an obstacle to domestic R&D centres of auto makers and parts suppliers.

In addition, the Chinese Government has been encouraging scientific outsourcing services for many years. If a R&D centre cannot import used vehicles and parts, it will not be able to take overseas orders, such as co-design work with international partners.

Furthermore, when Chinese auto makers and parts suppliers want to export their products to other markets, they need to perform tests in the designated country. In case of test failure, the failed products need to be imported to China for analysis or further improvement.

According to current regulations relating to importation, these products cannot be imported back to China for further tests. This increases development costs and creates barriers for some companies—especially SMEs—looking to export to the global market.

**Recommendation**

- Amend the *Forbidden Import Catalogue of Used Machinery and Electronic Products* and the *Administration Rules of Machinery and Electronic Products Import*, or issue supplementary regulations that permit imports of used vehicles and used parts for R&D purpose.

### 5. Restructure the Tax System to Promote Fuel Efficiency and Combat Local Protectionism

#### 5.1 Link Vehicle Tax to Fuel Consumption and CO$_2$ Emissions

**Concern**

The current consumption tax and purchase tax for vehicles are both based on engine displacement rather than fuel efficiency, and do not sufficiently encourage fuel efficiency or the development of low-emitting vehicles.

**Assessment**

Offering fiscal incentives for consumers to choose fuel-efficient vehicles is an effective mechanism to provide a market ‘pull’ that supports the ‘push’ created by the fuel economy regulations aimed at manufacturers. Therefore, the industry supports the use of these instruments in China as it does in the European Union (EU), where the majority of EU Member States have implemented CO$_2$-based vehicle taxes by now. By putting a price tag on each gramme of CO$_2$ emitted per kilometre, the consumer receives a clear signal to compare the efficiency of competing products. Furthermore, it supports a sound investment in innovative technologies and cars with a higher residual value.

In this context, China should reconsider its current

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engine displacement taxation. The taxation should instead encourage manufacturers and customers to introduce or to buy fuel-efficient vehicles, regardless of the technologies used to achieve consumption targets. Protecting the environment by reducing the total amount of CO$_2$ emissions per car has become a major policy target. However, evidence shows that some bigger engines have less CO$_2$ emissions than smaller ones. The working group is willing to help develop rules that are more effective in helping to protect the environment.

**Recommendation**

- Replace the current consumption tax and vehicle-purchase tax based on engine displacement with a tax scheme based on CO$_2$ emissions or fuel consumption per kilometre.

### 5.2 Restructure the Tax System to Combat Local Protectionism

**Concern**
The current tax system structure covering the automotive industry in China is imbalanced in terms of sharing tax revenue among the central government, the local government where the vehicles are manufactured and the local government where the cars are ultimately sold, which leads to local protectionism.

**Assessment**
According to the *Decision of the State Council of the People’s Republic of China on Implementing Measures*

<table>
<thead>
<tr>
<th>Tax</th>
<th>Amount/%</th>
<th>Central government</th>
<th>Local government (manufacture)</th>
<th>Local government (consumption)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT</td>
<td>17%</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>City Maintenance and Construction Tax</td>
<td>7% of product tax, VAT and business tax</td>
<td>52.2%</td>
<td>47.5%</td>
<td></td>
</tr>
<tr>
<td>Education supplementary tax</td>
<td>3% of VAT, business tax and consumption tax</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Local education supplementary tax</td>
<td>2% of VAT, business tax and consumption tax</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Governing land-use tax</td>
<td>CNY 0.9-30/m²</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Consumption tax</td>
<td>1-40%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition tax</td>
<td>10%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel consumption tax</td>
<td>CNY 1.52/litre</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Vehicle and vessel usage licence plate tax</td>
<td>CNY 60-5,400/year</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Enterprise income tax</td>
<td>25% of profit</td>
<td>100% for SOE</td>
<td>100% for local enterprise</td>
<td></td>
</tr>
</tbody>
</table>
of the Tax Division System, automotive-related taxes are divided into the categories in the table on the previous page.

As shown in the table, most of the tax revenue goes to the central government and local government where manufacture takes place; the government where the vehicle is ultimately sold receives only the vehicle and vessel usage licence plate tax, which represents a very small amount of all the related taxes. This imbalance of tax division encourages local governments to invest and develop the automotive industry in its own areas of jurisdiction regardless of surplus capacity throughout the country as a whole. It also encourages local governments to promote and subsidise locally-produced products and create barriers to products coming from other regions, which is unhealthy for the development of the automotive industry.

Recommendation
• Reform the current tax system to balance the sharing of tax revenue.

6 Implement Strict Enforcement of Safety Rules

Concern
Currently, law enforcement in China is not sufficient to ensure vehicle and road safety, nor does it promote competition on equal terms between transport operators.

Assessment
Heavy-duty commercial vehicles can reach gross vehicle weights of 49 tonnes and coaches can carry up to 49 passengers. The safety of passengers and other road users to a large degree is dependent upon well-maintained and legally-compliant vehicles. Judging by the great number of non-compliant and poorly-maintained commercial vehicles on Chinese roads it is obvious that the present annual safety inspection system is not working. The road safety of all traffic users is thus jeopardised.

Another reason for strictly enforcing annual safety inspections is to create a level playing field to allow fair competition. When all commercial vehicles live up to the same basic standards, transport companies will have to compete through good management, excellent services and innovative business models, thus eliminating traffic accidents caused by overloading and the use of sub-standard, unsafe vehicles. The design and usage of commercial vehicles has a direct influence on the efficiency of the transport and logistics industry. Ensuring that all vehicles conform to the law can be done through the implementation of a system of strict annual vehicle safety inspections and random road-side safety inspections.

An additional benefit would be the creation safer roads and highways which would attract more people to use their private cars for long-distance driving, which in turn will give a new push to the sales of passenger cars and long-distance coaches.

Recommendation
• Enforce strict annual vehicles safety inspections and random road-side safety inspections.

7 Adopt Holistic and Broader Policy Perspectives Related to Vehicle Digitalisation in Order to Address a Number of Legal and Political Issues as a Whole

Concern
Uncontrolled, unrestricted access to vehicle data carries high risks for vehicle safety.

Assessment
The Automotive Working Group believes that vehicle digitalisation is the arena for most future technological innovations in the automotive industry, which holds the potential to transform urban transportation and individual mobility at an unprecedented pace. The working group is delighted to see vehicle digitalisation has been included in key national strategies like Internet+ and China Manufacturing 2025.

Key policies and regulations on vehicle digitalisation should include, but not be limited to, aspects like data privacy and third-party data use, high-resolution map development, telecommunication standards, product liability, product certification, and road test permission for automated driving. Ethical questions such as ‘Who to protect when facing a car accident, the driver or pedestrians?’ would also need to be addressed. However, regulations pertaining to these topics are either lacking or outdated in China. Moreover, a clear
definition of responsibilities among authorities has not yet been established to deliver a holistic policy perspective with coordinated efforts that can address these issues as a whole. Lacking an overarching design will sooner or later inhibit the development of vehicle digitalisation in China.

In this regard, multiple think-tanks have come to play a role in boosting cross-sector collaboration via industry cooperation platforms, and the members of Automotive Working Group have actively contributed to such efforts via standards drafting and demonstration projects.

Attracted by its huge potential, a wide range of business players entered the market with their own unique value propositions and technical solutions. With more and more devices requesting access to vehicle data, associated risks are increased.

With regard to highly-automated driving (HAD), competition in China will launch a new era for the industry. Self-driving cars do not just provide a hands-free driving experience. They hold the potential to affect an urban transformation that will change the way that people navigate, access information and interact with one another. Cross-sector collaborations (public-private projects) in this area are expected to become more active in China. However, many people are simply not ready to trust life and limb to a machine – at least not yet. Therefore social acceptance presents a key challenge to the development of autonomous driving. Effective data protection is a key factor in this, which can enhance the acceptance of connected driving, and can support and optimise automated driving functions in the long term.

**Recommendations**

- Secure data access via manufacturers’ backend systems to ensure vehicle safety.
- Form vehicle data categories with different access rights according to the functionality required.
- Carry out new forms of political and legislative support to keep pace with increasingly rapid technological developments.

**Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEA</td>
<td>European Automobile Manufacturers’ Association</td>
</tr>
<tr>
<td>AQI</td>
<td>Air Quality Index</td>
</tr>
<tr>
<td>AQSIO</td>
<td>General Administration of Quality Supervision, Inspection and Quarantine</td>
</tr>
<tr>
<td>BEV</td>
<td>Battery Electric Vehicle</td>
</tr>
<tr>
<td>CAI</td>
<td>Comprehensive Agreement on Investment</td>
</tr>
<tr>
<td>CCC</td>
<td>China Compulsory Certification</td>
</tr>
<tr>
<td>CNCA</td>
<td>Certification and Accreditation Administration</td>
</tr>
<tr>
<td>CNY</td>
<td>Chinese Yuan</td>
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<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>DA</td>
<td>Driver-Assisted</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FYP</td>
<td>Five-Year Plan</td>
</tr>
<tr>
<td>GAC</td>
<td>General Administration of Customs of the People’s Republic of China</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HAD</td>
<td>Highly Automated Driving</td>
</tr>
<tr>
<td>JV</td>
<td>Joint Venture</td>
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<tr>
<td>MEP</td>
<td>Ministry of Environmental Protection</td>
</tr>
<tr>
<td>MIIT</td>
<td>Ministry of Industry and Information Technology</td>
</tr>
<tr>
<td>MOFCOM</td>
<td>Ministry of Commerce</td>
</tr>
<tr>
<td>MOT</td>
<td>Ministry of Transport</td>
</tr>
<tr>
<td>MPS</td>
<td>Ministry of Public Security</td>
</tr>
<tr>
<td>NEV</td>
<td>New Energy Vehicle</td>
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<tr>
<td>NDRC</td>
<td>National Development and Reform Commission</td>
</tr>
<tr>
<td>PA</td>
<td>Partially-Automated</td>
</tr>
<tr>
<td>PHEV</td>
<td>Plug-in Hybrid Electric Vehicle</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>SEM</td>
<td>Small and Medium Enterprise</td>
</tr>
<tr>
<td>SOE</td>
<td>State Owned Enterprise</td>
</tr>
<tr>
<td>VAT</td>
<td>Value-Added Tax</td>
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</tbody>
</table>