Automotive Service Catalog

ATIC



2024

Service Catalog

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Part 01 Compliance

ATIC

ATIC works with authorities of transportation, environmental protection, industry, and national laboratories, and industrial associations in over 54 countries and regions worldwide. ATIC keeps studying and tracing on global vehicle regulations, certification procedures, and testing methodologies. Based on ATIC's self-developed digital customer platform, it provides one-stop regulatory compliance services for vehicle and component manufacturers.

Global Vehicle Compliance Customization

1. Vehicle Homologation Regulation List
2. Vehicle Homologation Regulation Original Text
3. Vehicle Homologation Regulation Translation
4. Vehicle Homologation Regulation Interpretation and Training
5. Itemized Breakdown of Regulatory Technical Requirements
6. Technical Consultation on Vehicle Homologation Regulation
7. Market-Entry Research Reports on Vehicle Homologation and Vehicle Compliance
8. Compliance Consulting for Specific Domains or Topics (New Energy Policies, Power Battery Systems, CNG/LPG Specialization, Braking Systems, In-Vehicle Communication, Battery Swapping, Product Recalls, etc.)
9. Prototype Vehicle Gap Analysis Evaluation Based on Vehicle Homologation Regulation

Cases: BYD, NIO, AION, Windrose

Global Vehicle Regulations Subscription

Based on years of experience in vehicle compliance and certification, ATIC has launched a global vehicle regulations subscription service based on a self-developed digital system, which can be accessed by customers at any time and from anywhere on the ATIC customer platform.

1. Regulation Subscription

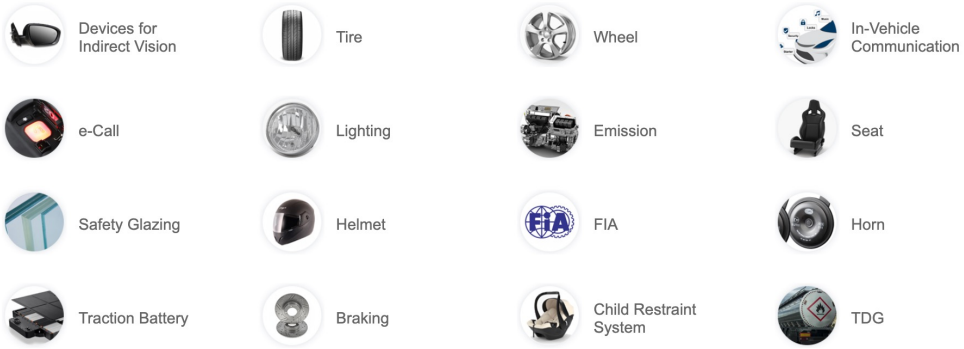
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Global Vehicle Regulations Subscription

2. Regulation Monthly Update

Subscribe by field:



Subscribers are provided with a monthly service for the duration of the contract, including vehicle regulation draft, draft for comments and official regulation updates, advance warning of regulation changes, and online access to and download of original regulations or drafts

Cases: BYD, NIO

Automotive-related Chemical Material Compliance

1. REACH Compliance Solution

REACH is the abbreviation of Registration, Evaluation, Authorisation and Restriction of Chemicals. The regulation number is (EC) No 1907/2006.

Effective date: Came into effect on June 1 , 2007 and was officially implemented on June 1 , 2008.

Scope of application: Applies to all chemical substances in all fields, not only those used in industry, but also those in our daily lives. For example, chemicals in cleaning products, paints, clothes, furniture, electronic products and automotive products all need to comply with REACH regulations.

Regulations/Standards: (EC) No 1907/2006

Cases: BYD, Geely, Dayun

2. ELV&RRR Directive Compliance Solution

In order to better recycle and reuse old and scrapped vehicles, the European Union began to formulate laws on scrapped vehicles in 1997, and issued the End of Life Vehicles Directive (Directive 2000/53/EC) on October 21, 2000, which was officially implemented on July 1, 2003. EU member states must convert the directive into formal national laws before April 21, 2002.

Scope of application:

- Apply to category M1 and N1 vehicles. All parts and homogeneous materials in scrapped vehicles. Replacement parts and materials are also included in this directive.
- Category M1 vehicle refers to a passenger car with no more than 9 seats, including the driver's seat.
- Category N1 vehicles refer to trucks with a maximum design gross mass not exceeding 3,500kg.

Regulations/Standards: Directive 2000/53/EC，Directive 2005/673/EC

Cases: BYD, Geely, Xpeng

Automotive-related Chemical Material Compliance

3. RoHS Directive Compliance Solution

RoHS Directive, full name On the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, is the EU's restriction on hazardous materials in electrical and electronic products.

Effective date: Officially implemented on July 1, 2006

Scope of application: Applies to electronic products EEE ("Electrical and electronic equipment" or "EEE" means equipment that depends on electric current or electromagnetic fields for its proper functioning, as well as equipment used for the generation, transmission and measurement of such electric current and magnetic fields, and is designed for use with current not exceeding 1 000 volts alternating current and 1 500 volts direct current.)

Regulations/Standards: RoHS 1：Directive 2002/95/EC，RoHS 2：Directive 2011/65/EU，RoHS 3：Directive 2015/863

Cases: BDY, Lotus, smart

4. PPW Directive Compliance Solution

PPW is the abbreviation of Packaging and Packaging Waste. The European Union issued the PPW Directive (Directive 94/62/EC) on December 20, 1994, which is a mandatory regulatory requirement for product packaging recycling.

Scope of application: This Directive covers all packaging placed on the Community market and all packaging waste, whether used or released at industry, commerce, offices, shops, services, households or at any other level, and regardless of the material used.

Regulations/Standards: Directive 94/62/EC

Cases: BYD, Louts, smart

5. New Battery Directives Compliance Solution

The EU began the battery recycling directive Directive 2006/66/EC in 2006, which mainly focuses on battery recycling labels and battery recycling responsibilities.

In July 2023, the EU issued the "new" battery directive EU 2023/1542, which added requirements such as battery carbon footprint, material recycling rate, battery passport, CE certification and dealer due diligence.

The new battery regulations come into effect on August 17, 2023 and is implemented on February 18, 2024. The new requirements will be implemented in stages.

Scope of application: Including portable batteries, starting, lighting and ignition batteries (SLI batteries) , light transport batteries (LMT batteries) , electric vehicle power batteries, industrial batteries, etc.

Regulations/Standards: EU 2023/1542

Cases: AION, BYD, smart

Part 02 Certification

ATIC

ATIC vehicle certification experts have an average of over 10 years of experience in the field of motor vehicle certification, and are familiar with certification processes, local regulations, and testing requirements in various countries. ATIC has established authorized or cooperative relationships with official institutions in over 30 countries or regions worldwide, ATIC can assist manufacturers in completing the entire certification cycle, including certification application, document preparation, regulatory guidance and training, pre testing, etc., to help Chinese automotive brands enter the global market with the best service and fastest efficiency.

AISA



China

Mainland China	China Compulsory Certification (also known as CCC) is the compulsory product certification system in China. According to the requirements of CNCA (Certification and Accreditation Administration of the People's Republic of China), all products listed in the compulsory product certification scope which do not obtain a certificate or apply certification marks in compliance with regulations, shall not be imported, despatched, or enter into China market. **Regulations/Standards:** CNCA-C01~CNCA-C24 **Cases:** Rimac, AVL, VAST
Hong Kong	Hong Kong is a region that implements left-hand traffic. The administrative authorities for motor vehicle type approval and registration are Environmental Protection Department, Customs and Excise Department and Transport Department. Hong Kong Environmental Protection Department checks and determines the vehicle's compliance with emission and noise standards. Customs and Excise Department is mainly responsible for the import declaration and assessment of vehicles. The Transport Department of Hong Kong is responsible for vehicle inspection and vehicle registration. **Cases:** Unex, DFLZM, GWM
Taiwan	1. Taiwan Motor Vehicle Type Approval Till March 2021, MOTC has published 150 vehicle safety testing directions. From automotive lighting and light signaling devices, safety glazing, belts, to braking system, seats and headrests, VSTD include most the safety aspects in vehicle system and components. A vehicle model must obtain certification in four areas -safety, emissions, noise, and energy consumption - before it can be officially used on public roads in Taiwan. ATIC has conducted in-depth cooperation with the MOTC and the Vehicle Safety Certification Center VSCC to provide professional one-stop service for motor vehicle and parts companies. **Regulations/Standards:** VSTD 01~VSTD 90 **Cases:** Trinasolar, VAST, YAPP

China

Taiwan	**2. BSMI Certification** According to the regulations of CNS established by the Bureau of Standards, Metrology and Inspection (BSMI) under the Ministry of Economic Affairs, any items designated for mandatory inspection by the Ministry's announcement, whether produced domestically or imported from abroad, must undergo inspection and obtain approval from the BSMI before they can be displayed and sold in the Taiwan market. **Cases:** BYD, CITIC Dicastal

Eurasian Economic Union

EAC Certification	The Eurasian Conformity (EAC) is a certification system established by the Eurasian Economic Union (EAEU). To date, 48 technical regulations have been enforced, covering products such as food, electronics, children's items, chemicals, and more. All relevant products must be certified and labeled according to EAC standards. ATIC has formed long-term partnerships with certification bodies and testing labs in Russia and Belarus, offering streamlined EAC certification services directly from China. **Regulations/Standards:** TP TC 018 2011 **Cases:** BYD

India

Whole Vehicle and Components	The mandatory certification scope of the CMVR regulation includes: 2/3 Wheeler, Quadricycle, 4 Wheeler (M1, N1), LCV/HCV (M2, M3, N2, N3), Construction Equipment Vehicles (CEV), Special Purpose Vehicle (SPV), Agricultural Tractor, Power Tiller, Trailer, Combined Harvester, Engine, CNG/LPG Vehicle, Battery Operated Vehicle (BOV), Diesel/Gasoline Generator. **Regulations/Standards:** CMVR Regulations **Cases:** BYD, FinDreams, Autoliv, SGMW, Tiemao Glass, LHGlass
Battery Operated Vehicle	The Indian CMVR regulations have a number of special regulations for the Battery Operated Vehicle. According to different vehicle types, additional electric vehicle regulations are required to be tested and certified in the whole vehicle type certification process. The technical services provided by ATIC include CMVR regulatory consultation, vehicle and component testing and certification, factory audit, FAME II subsidy application and other one-stop services. **Regulations/Standards:** CMVR Regulations **Cases:** BYD

India

Goods	Goods exported to India must undergo BIS certification and bear the corresponding labels before entering the Indian market. Currently, the mandatory certification products under BIS can be primarily divided into two categories: ISI certification and CRS registration. ISI certification covers 560 products across 59 categories. This type of certification falls under the mandatory 5-category certification, requiring factory audits and sample testing. It mainly targets industrial products and consumer goods, such as household appliances, automobile tires, and steel material products. **Cases:** CATL, SGMW, Tiemao Glass, LHGlass

Indonesia

Whole Vehicle	For homologation of motor vehicles, Indonesia adopts type approval system which is supervised by Ministry of Transportation (MoT) and Ministry of Industry (MoI). According to Law no. 22/2009 on Road Transport and Traffic, all motor vehicles used and operated on public roads shall comply technical and road performance requirements, and manufacturers shall obtain type approval certificate before shipping the vehicle to Indonesian market and being registered. **Regulations/Standards:** Law No. 22/2009 on Road Transport and Traffic, Government Regulation No. 55/2012 on Vehicle, PM 33/2018 (Vehicle Type Approval) **Cases:** Geely, NETA Auto
Automotive Components	The Indonesian government has implemented SNI (Standard National Indonesia) certification for related products since September 7, 2007. The SNI certification scheme is an nationwide product certification system. After the products are certified according to the scheme, manufacturer will be licensed to use Indonesia quality mark (SNI mark). Among above standards automotive components SNI certification scope covers: Tires, Safety Glass, Helmets, Wheels, Lubricants, etc. **Regulations/Standards:** SNI Standards **Cases:** SGMW, TM Glass, LHGlass, Longkou Xiandai Xingyu, Wanfeng Aowei, Changzhou Yaopi
Goods	The Indonesian government has implemented SNI (Standard National Indonesia) certification for related products since September 7, 2007. The SNI certification scheme is an nationwide product certification system. After the products are certified according to the scheme, manufacturer will be licensed to use Indonesia quality mark (SNI mark). The SNI product certification is evaluated and tested by the Indonesian national accredited and designated certification bodies. In order to obtain the license two conditions shall be met: the product fulfills the SNI standards and the quality management system of the factory conforms to the SNI product certification requirements. At present, Indonesia has released more than 300 SNI standards covering construction, food, automotive, electronics, toys, agriculture, airport facilities and other fields. **Regulations/Standards:** SNI Standards **Cases:** SGMW, TM Glass, LHGlass, Baostep

Indonesia

Toys	Indonesian toy SNI certification covers: baby walker, tricycles, scooters, pedal cars and similar wheeled toys, doll's carriages, dolls, other parts snd accy of dolls, electric toy cars, electric trains, including tracks, signals and other accy therefor, model cars, blocks, plush toys, mind puzzle toys, numerical, aphabetical or animal blocks, work builder sets, toy cunters frames(abaci),toy sewing machines, toy jump ropes, marbles, bocce balls， toy electronic keyboards and other toys, etc. **Regulations/Standards:** SNI Standards
Telecom	Typical telecommunication products need SDPPI certification includes Cellular Mobile Devices, Bluetooth, Notebook Computers, Mobile Phones, WLAN, Routers, Radars, TV Boxes, Wireless Phones, Antennas, Cables, etc., with more new regulations, more and more products are included into SDPPI mandatory certification scope. ATIC has good communication with SDPPI as well as a number of local Indonesian labs to provide one-stop SDPPI certification services for domestic telecom manufacturers. **Regulations/Standards:** SDPPI number 5 of 2019, SDPPI number 2 of 2019, Number 6 of 2014, 201 / DIRJEN / 2011 etc. **Cases:** FinDreams Technology

North Korea

Whole Vehicle	Korean automotive product certification includes mandatory certification (environmental certification, energy certification) and self-certification (KMVSS safety certification). ATIC, as the first technical service institution in China to undertake Korean vehicle and component certification, has successfully provided services to multiple domestic new energy automobile brands. ATIC conducts in-depth regulation research, set up regular technical meeting with Korea Automotive Testing and Research Institute (KATRI), Korea Transportation Pollutant Research Center (TPRC) and Korea Automotive Parts Association (KAPA). ATIC is capable of providing technical service from KMVSS self-certification, environmental certification, fuel consumption testing, subsidy testing, KC certification throughout the whole automotive homologation process. **Regulations/Standards:** KMVSS Article 1~KMVSS Article 116, KAPA G01~KAPA G11 etc. **Cases:** BYD, Geely, Xinyuan Auto, Huanghai Auto, MYOUNG, Louts.
Automotive Components	For certain automotive parts entering the aftermarket, KC (Korea Certification) scheme is applied which was regulated by the Ministry of Industry. From 2018, Ministry of Land, Infrastructure and Transport (MOLIT) has taken over the regulating and supervising responsibilities of KC certification for automotive components. The certification system for automotive components applies to imported vehicles and parts, as well as locally produced components and equipment in South Korea. To protect the interests of Korean consumers, this certification process requires relevant parties to rectify products that do not meet the standards. **Cases:** Geely, ITT, AP, Lotus, CITIC Dicastal, Wanfeng Auto, CATL

North Korea

Goods	Korean product safety KC certification is the compulsory product safety control system in Korea. It is supervised by the Ministry of Trade, Industry and Energy of Korea which formulates related laws, enforcement decrees and rules on product safety. According to regulations, products subject to mandatory safety certification in Korea are primarily divided into three categories: electrical appliances, household goods, and children's products. Products falling within the scope of Korea's mandatory product safety certification must obtain KC certification and display the KC label before they can enter the Korean market. **Regulations/Standards:** ELECTRIC APPLIANCES SAFETY CONTROL ACT, NTS Notice No. 2017, MOTIE Notice No. 2017-16 etc. **Cases:** Geely, MYOUNG, CITIC Dicastal, Xingmin ITS, CEG, Mande Electronics

Japan

Whole Vehicle	Japanese automotive homologation system is ranked among the world's three major automotive homologation systems together with European and the United States. The core motor vehicle regulations are the Road Vehicle Law, the Motor Vehicle Type Designation Rules, the Security Standards for Road Transport Vehicles, and the Air Pollution Prevention Law. Japan implement type approval procedures for Motor Vehicles, and the system is called “the type designation system”. Before entering the Japanese market, the whole vehicle and auto parts need to be type approved and supervised by the Ministry of Land, Infrastructure, Transport and Tourism of Japan. Japan's whole vehicle test includes safety, emissions, fuel consumption, and noise test. The Ministry of Land, Infrastructure, Transport and Communications is responsible for testing and issuance of reports. ATIC conducted in-depth regulation research covering the top level automotive related laws till the testing procedures and standards. We can provide compliance service and homologation service for OEMs who are intended to commercialize their vehicles in Japan market. **Regulations/Standards:** The Security Standards for Road Transport Vehicles Article 1~73 **Cases:** BYD
Electrical Products	According to the DENAN Law, electrical products imported into Japan must ensure product safety and marked with the PSE mark after meeting the technical standards of the regulation before entering the Japanese market. There are 457 kinds of regulated products in the DENAN Law, which refer to electrical equipment on 100V and 200V commercial power supplies supplied by electric power companies, such as ordinary households, offices without professional management, agricultural work places, etc. **Regulations/Standards:** DENAN Law **Cases:** None

Vietnam

Whole Vehicle and Components	The Vietnamese motor vehicle type approval authority is Ministry of Transport of Vietnam (MOT) and its subdivision Vietnam Register (VR). Since the year of 2018, Vietnam Register has mandated certification for aftermarket auto parts includes helmets, glazing, wheels, rearview mirrors, tires, headlamps, fuel tanks, batteries, interior materials, pressure vessels, power batteries, etc. **Regulations/Standards:** Decision No. 116/2017/ND-CP, Circular No. 45/2012/TT-BGTVT, Circular 30/2011/TT-BGTVT, Circular No. 44/2012/TT-BGTVT, Circular No. 31/2012/TT-BGTVT **Cases:** Fuyao Glass (FYG), Yaohua Pilkington Glass (SYP), JMC Ford, CITIC Dicastal
Telecom	Telecommunication products manufactured in Vietnam and other countries must be homologated following the mandatory certification scheme published by the Ministry of Information and Communication (MIC) of Vietnam and printed with ICT conformity mark before entering the Vietnamese market. The telecommunication products are classified into Category I and Category II, respectively need follow Type Approval & Declaration of Conformity and Declaration of Conformity procedures. **Regulations/Standards:** Circular 04/2018/TT-BTTTT **Cases:** FinDreams Technology
CR Certification	Vietnam CR certification, is a product certification system developed and implemented by the Ministry of Science and Technology of Vietnam. At present, Vietnam issued 19 product technical regulations, the control scope includes fuel, helmets, toys, electronic appliances, steel, lighting products, chemical products, household appliances and so on. All products included in the unified list of CR certification, without obtaining a certificate or applying the certification mark as required, are not allowed to import, factory sales and use in business services. **Regulations/Standards:** QCVN1, QCVN2, QCVN3, QCVN4, QCVN7, QCVN8, QCVN9, QCVN14, QCVN19, QCVN20 **Cases:** None

Thailand

Whole Vehicle and Components	The Ministry of Transport of Thailand (MoT) is the ministry of the Government of Thailand responsible for the development, construction, and regulation of the nation's land, marine, and air transportation systems. Department of Land Transport (DLT) is a subsidiary of the Ministry of Transport. Its main functions are to improve transportation laws, vehicle regulations, improve public transportation facilities and develop land transportation networks. it's one of the authority for motor vehicle type approval in Thailand. ATIC established a local consulting team in Thailand which is able to provide professional and efficient services in the whole process of certification, such as legal representative, regulation interpretation, documentation preparation, factory audit coordination, testing sample customer clearance and transportation, etc.

Thailand

Whole Vehicle and Components	**Regulations/Standards:** TIS Standards, Motor Vehicle Act, Ministerial Regulations Determining Parts and Equipment for Vehicles etc. **Cases:** Jetour, KingLong, BYD, Aion, XCMG, Xinyi Glass, Tiemao, CSG, Autoliv
Goods	TISI has established TIS standards to meet the needs and development of national industry, corporates, economics, governments and society, as well as government policy support, consumer protection, and environmental and natural resource protection. TISI offers a product certification program that includes two certification marks, a voluntary certification mark and a mandatory certification mark. **Regulations/Standards:** TIS Standards **Cases:** FinDreams Technology, Juchuang Technology
Telecom	National Broadcasting and Telecommunications Commission (NBTC) is an independent national telecom authority in Thailand. Its duties and responsibilities are to regulate all telecommunication services in the country through formulating a Master Plan on Telecommunications Activities, setting criteria and categories of telecommunication services, permitting and regulating the use of spectrum for telecommunication services, and granting licenses to the telecommunications operators. Telecom equipments subjected to NTC or NBTC's scope are divided into 3 groups: Registration, Type Approval and Supplier's Declaration of Conformity (SDoC). **Regulations/Standards:** NTC TS Standards **Cases:** FinDreams Technology

Singapore

Whole Vehicle	To ensure that vehicles meet the technical requirements and internationally recognized safety, the LTA requires every new make and model of vehicle to be type-approved and comply with the Road Traffic Act and its subsidiary regulations before it can be registered for use in Singapore. **Regulations/Standards:** Compliance with Road Traffic Act and its Subsidiary Legislations, Vehicle Safety Standards, Exhaust Emission Standards etc. **Cases:** BYD, JENHOO

The Philippines

Whole Vehicle	Motor vehicle certification in the Philippines includes vehicle emission certification and safety certification. The Philippine Environmental Management Bureau (EMB) is responsible for testing and approval of vehicle emission, which passed the test can get a Certificate of Conformity from EMB. The Land Transportation Office (LTO) is under the Department of Transportation (DOT), who is responsible for the safety certification of the vehicle. This department will issue an announcement about the new vehicle type.

The Philippines

Whole Vehicle and Components	In addition, some automotive spare-part (or after-market parts) such as seat belts, glass, etc. need to be certified by the BPS, which is the National Bureau of Standards under the Department of Trade and Industry (DTI) of the Philippines, who is also responsible for the certification of all consumer products, including automotive parts. **Cases:** BYD, SAIC
Goods	In order to ensure the applicable quality and safety of products, BPS implements mandatory certification for some key products. For products on the mandatory certification list, products manufactured locally in the Philippines require the PS Mark, and imported products need to bear the PS Mark or ICC Mark before they can be sold on the Philippine market. ATIC maintains close contact with BPS, and provides professional and efficient one-stop certification services mainly to Chinese manufactures. **Regulations/Standards:** BPS national standards **Cases:** FinDreams Technology

Malaysia

Whole Vehicle	Vehicle Type Approval (VTA) is a procedure conducted on all vehicle models before the registration process is done. This is done to guard the identity, dimension, weight, build characteristics and the specifications of the vehicle to ensure that it is compliant with the stipulations set under 1987 Road Transport Act and the Road Transport Rules. New vehicle models within the scope of certification must complete the following steps before entering the Malaysian market: obtain approval from the National Type Approval Committee, undergo vehicle inspection conducted by JPJ (Road Transport Department), receive Vehicle Type Approval (VTA), and ensure that all components have obtained Component Type Approval (CTA). **Regulations/Standards:** Adopted the UNECE vehicle technical regulations **Cases:** BYD, JINhoo

Nepal

Whole Vehicle	The DoTM is responsible for the development of all vehicle regulations and management systems, as well as the type approval of road vehicles and the management of after-market inspections of private vehicles and public transport. In addition, the Ministry of Forests and Environment (MFE) oversees legislation on motor vehicle exhaust pollution. A model has to comply with DoTM certification and emissions certification before it can be officially used on local roads. **Regulations/Standards:** Motor Vehicles and Transport Management Rules, 2054 (1997) Motor Vehicles and Transport Management Act, 2049 (1993), Bus Body Building Criteria, 2074, etc. **Cases:** None

Uzbekistan

Whole Vehicle	According to Uzbekistan's regulatory requirements, vehicles entering the Uzbekistan market need to undergo vehicle safety approval (VTA) and environmental protection certification, which are implemented by the Uzbekistan Technical Supervision Bureau and the Ecological Environmental Protection Committee respectively. **Regulations/Standards:** UzTR.237-016:2017 **Cases:** None

European Union

Whole Vehicle and Components	Focusing on road safety, environmental protection and public health, people may mention three sets of famous regulations when they talk about European Type Approval System: German StVZO, EU Regulations and UN Regulations. StVZO standards apply to Germany, EU Regulations apply to EU/EEA/EFTA* member states, while UN Regulations may accepted by EU and more than 50 UNECE member states. ATIC experts are working under designated technical services in Europe to conduct Initial Assessment, Witness Testing and CoP Assessment as authorized inspectors under authorities including e/E4 Netherland, e/E5 Sweden, e/E13 Luxembourg, e/E24 Ireland, e/E49 Cyprus. **Regulations/Standards:** Regulation(EU) 2019/2144, Regulation (EU) 2018/858, UN Regulation No. 1-UN Regulation No. 168, 2015/208/EU etc. **Cases:** BYD, XPeng, Aion, Geely, Hozon, Leapmotor, Xinyuan, Dayun, WEIDO, Foton, Aiways, YAPP
Trailers or Braking Systems	In accordance with UN Regulation No. 90, for products like brake pads, brake shoes, and brake discs, mechanical performance testing, bench testing, and vehicle-specific testing are mandatory. For braking system tests and homologation, ATIC's partner labs in Europe has already designated by several EU authorities as designated technical services and testing laboratories. ATIC can provide tests and type approval services for braking systems and trailers. **Regulations/Standards:** UN Regulation No. 90 **Cases:** Shandong Jinli, ISUZU, Terbik
Transportation of Dangerous Goods - ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) was established by the United Nations Economic Commission for Europe in Geneva in 1957 and amended in April 1985. The ADR stipulates that, except for certain extremely dangerous goods, other hazardous materials can be transported internationally by road vehicles in accordance with the requirements set out in the annexes of the ADR. **Regulations/Standards:** 2008/68/EC, ADR 2023 Volume 1 & Volume 2 **Cases:** FinDreams Technology
Automotive Electronics	Electromagnetic Compatibility is the most basic safety requirement in automotive electronic and electrical safety area. The United Nations Economic Commission for Europe (UNECE) Regulation No. 10 is the most widely used automotive EMC regulation. Both vehicle and components shall apply type approval certificate according to UN Regulation No. 10 then enter Europe or more than 50 UNECE member states. **Regulations/Standards:** UN Regulation No.10 **Cases:** BYD, FinDreams Technology, Xpeng, King Long, Foresee, JEE Power, SVOLT, Shenghuabo, BeBest, Huachuan Electric

European Union

Radio Equipment Directive (RED)	Radio equipment is regulated by the Radio Equipment Directive (RED) according to EU regulations, which applies to all products that use the radio spectrum. Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC. The new rules aim to keep pace with the growing number and variety of radio equipment devices and ensure that they do not interfere with each other and respect essential health and safety requirements. **Regulations/Standards:** 2014/53/EU **Cases:** FinDreams Technology, Xpeng, Dayun, Jiangling Group, Zhejiang SHB, Baoling
BSIS & MOIS	BSIS means a system installed on a truck to inform the driver of a possible collision with a bicycle near side, it is obvious to use such assistance systems for avoiding accidents between turning trucks and cyclists. MOIS means a system to detect and inform the driver of the presence of pedestrians and cyclists in the close-proximity forward blind-spot of the vehicle. UNECE officially announced the technical regulations UN R151 related to the blind spot monitoring system and the technical regulations UN R159 related to the moving off information system. The UN R151 regulation has come into effect on November 15, 2019. The UN R159 regulation has come into effect on June 10, 2021, and will be mandatory for M2, M3, N2, N3 new models on July 6, 2022, and be enforced to for M2, M3, N2, N3 new registrations on July 7, 2024. **Regulations/Standards:** UN Regulation No.151, UN Regulation No.159 **Cases:** BYD, Geely
Vehicles Cybersecurity and Software Update	The two new UN Regulations, adopted by UNECE's World Forum for Harmonization of Vehicle Regulations, require that measures be implemented across 4 distinct disciplines: Managing vehicle cyber risks; Securing vehicles by design to mitigate risks along the value chain; Detecting and responding to security incidents across vehicle fleet; Providing safe and secure software updates and ensuring vehicle safety is not compromised, introducing a legal basis for so-called "Over-the-Air" (O.T.A.) updates to on-board vehicle software. **Cases:** BYD, Geely, Xpeng, BYD TOYOTA
DDAW	Article 6 of Regulation (EU) 2019/2144 requires motor vehicles of categories M and N to be equipped with certain advanced vehicle systems, including driver drowsiness and attention warning (DDAW) systems. This Regulation applies to motor vehicles of categories M and N of Regulation (EU) 2018/858 with a maximum design speed above 70 km/h. Driver drowsiness and attention warning (DDAW) systems monitor a driver's level of drowsiness and alert the driver through the vehicle human machine interface (HMI). Meanwhile, any processing of personal data in DDAW system shall be carried out in accordance with Union data protection law. DDAW regulation came into force on August, 2021. It shall apply for new types vehicle from 6 July 2022 and for new cars vehicle from 6 July 2024. **Regulations/Standards:** (EU) 2019/2144 **Cases:** BYD, Xpeng, Geely, Momenta

European Union

ADDW	The new GSR requires the implementation of the Advanced Driver Distraction Warning System (ADDW) starting from July 6, 2024. New vehicle models must be equipped with an ADDW system that complies with technical regulations. This system should help drivers focus on the driving task and provide warnings when the driver is distracted. **Regulations/Standards:** (EU) 2019/2144 **Cases:** BYD, Xpeng, Geely, Momenta
Alcohol Interlock Installation Facilitation	Article 6 of Regulation (EU) 2019/2144 requires motor vehicles of categories M and N to be equipped with certain advanced vehicle systems, including alcohol interlock installation facilitation. The alcohol interlocks enhance traffic safety by preventing persons with alcohol concentrations in their bodies exceeding a set limit value from driving a motor vehicle. Regulation (EU) 2021/1243 has enter force now. It shall apply for new types vehicle from 6 July 2022 and for new cars vehicle from 6 July 2024. **Regulations/Standards:** (EU) 2019/2144 **Cases:** BYD, Xpeng, Geely
ISA	Intelligent Speed Assistance (ISA) is a system that prompts and encourages drivers to slow down when they are over the speed limit. The system works with drivers as an assisting function to avoid accidents or mitigate their outcome. On June 23, 2021, the European Commission adopted the final draft regulation for the ISA intelligent speed assistance system. On November 17, 2021, the regulation was officially published as Regulation No. (EU) 2021/1958. According to EU 2019/2144, motor vehicles of categories M and N are required to be equipped with Intelligent Speed Assist (ISA) from July 6, 2022 for new vehicle types, and from July 7, 2024 for all new vehicles . **Regulations/Standards:** (EU) 2021/1958, (EU) 2019/2144 **Cases:** BYD, Xpeng, Geely
ELKS	The EU's new GSR Regulation 2019/2144 stipulates that from July 6, 2022, all new type of M1 and N1 vehicles must install the emergency lane keeping system (ELKS) and comply with Regulation (EU) 2021/646. The Emergency Lane Keeping System (ELKS) is a driving assistance system that should warn the driver and correct the trajectory when the driver accidentally leaves the lane. **Cases:** BYD, Xpeng, Geely **Regulations/Standards:** (EU) 2019/2144
Assisted Driving Systems	With the popularity of assisted driving systems, features such as lane-keeping and automatic lane change are becoming standard configurations in an increasing number of vehicles on sale. CSF and ESF refer to the corrective steering function and emergency steering function respectively. According to the UN R79 regulation, vehicles equipped with ACSF, CSF, and ESF functions need to be tested and achieve the E-mark type approval of R79 in order to get access to the EU market. **Regulations/Standards:** UN Regulation No.79 **Cases:** BYD, Xpeng,Geely

European Union

Devices for Means of Rear Visibility or Detection	UN Regulation No. 158, sets out the minimum technical requirements for reversing devices of Class M and Class N vehicles and the rear view and detection of the vehicle when the driver is reversing. The regulation will take effect on June 10, 2021 and will be mandatory from July 6, 2022. **Regulations/Standards:** UN Regulation No.158 **Cases:** BYD, Xpeng, Geely
Audible Reverse Warning Devices	"Audible reverse warning device" means a device, emitting an acoustic signal to the outside of a vehicle while reversing, which is intended to give audible warning of the presence of a vehicle. A reverse warning sound is widely used to ensure safety of people around medium- and heavy-duty vehicles above 3.5 tonnes. On 13 March 2023, the World Forum for Harmonisation of Vehicle Regulations (WP.29) adopted a new UN regulation on reversing warnings, UN R165. The regulation was drafted by a group of experts from government and industry, led by Japan, and came into force on the day of its adoption. The new regulation strikes a balance between ensuring a sufficiently recognisable warning sound and avoiding undue noise nuisance to the environment and humans, including provisions for conventional reversing warning devices with a fixed volume and adjustable devices that automatically select the appropriate volume according to ambient noise. **Regulations/Standards:** UN Regulation No.165 **Cases:** None
EDR	Vehicle's EDR, or event data recorder, commonly known as "black box", is used for data collection and storage in unexpected situations such as vehicle collisions. According to the latest revision of the motor vehicle type approval framework EU 2018/858, from 6 July 2022, new M1,M2,M3,N1,N2,N3 types certified in unlimited series will need to comply with Regulation (EU) 2022/545, and UN R160.The provisions concern the minimum collection, storage and crash survivability of motor vehicle crash event data. The purpose of these provisions is to ensure that EDR's record, in a readily usable manner, data valuable for effective crash investigations and for analysis of safety equipment performance (e.g., advanced restraint systems). **Regulations/Standards:** Regulation (EU) 2022/545, UN Regulation No.160 **Cases:** BYD, Xpeng, Geely
AEBS	Automotive AEBS system is also known as Advanced Emergency Braking System. According to the new framework regulation of EU 2019/2144, starting from July 6, 2022, all new M1, N1 type vehicles entering EU market in unlimited series, equipped with Car-to-Car AEBS function. Advanced emergency braking for pedestrians and bicycles will not be mandatory for new type of vehicles until July 7, 2024. **Regulations/Standards:** (EU) 2019/2144, UN Regulation No.152 **Cases:** BYD, Xpeng, Geely

European Union

ALKS	"Automated Lane Keeping Systems (ALKS)" refers to a system that controls the lateral and longitudinal movement of a vehicle for a long time without driver instructions, and belongs to "L3 level" automated driving. This regulation is the first regulatory step for autonomous driving systems in the transportation field. R157 is the first binding international regulation for "L3 level" automated driving. This regulation marks an important step in the development of autonomous driving technology. It was first passed in June 2020 and will take effect in January 2021. **Regulations/Standards:** UN Regulation No.157 **Cases:** None
Directive of Pyrotechnic Articles	According to the New Legislative Framework of Europe Union, the manufacturers are required to complete the CE conformity assessment procedure and affix the CE marking before putting the products under the Directive of pyrotechnic articles (Directive 2013/29/EU) in the European Economic Area (EEA) market. The Directive of pyrotechnic articles establishes the essential safety requirements that pyrotechnic articles are to fulfill with a view to their being made available on the market while ensuring a high level of protection of human health and public security and the protection and safety of consumers and taking into account the relevant aspects related to environmental protection. **Regulations/Standards:** Directive 2013/29/EU **Cases:** FinDreams Technology, Dayun Auto
Unmanned Aircraft System	EU regulations 2019/947 and 2019/945 adopt a risk-based approach and set out the framework for the safe operation of civil drones in Europe They entered into force from 31st December 2020 in all EU Member States, and countries including Norway, Liechtenstein, Switzerland, and Iceland. From 1st January 2024, all civil drones in 'open category' and 'specific category' will require CE certification to be authorized to fly in the areas mentioned above. **Regulations/Standards:** (EU) 2019/945, (EU) 2019/947 **Cases:** None
PPE	Personal Protective Equipment (well known as PPE) means equipment designed and manufactured to be worn or held by a person for or held by a person for protection against one or more risks to that person's health or safety. The manufacturers of PPE need to draft an EU declaration of conformity, and some products also need to obtain EU type-examination certificates and factory audit certificate issued by notified bodies, so that PPE can be beared with the CE mark and in normal circulation sales in the EEA market. **Regulations/Standards:** (EU) 2016/425 **Cases:** None

European Union

FVA	Field of vision assistant (FVA) means visual information displayed on the vehicle windscreen or other glazed surface to support the awareness of the driver. 02 series of UN Regulation125 added new requirements about field of vision assistant (FVA) to provide an assisted view for the driver, which will be in force from September 1, 2023. **Regulations/Standards:** UN Regulation No.125 **Cases:** BYD, Xpeng, Geely
New Battery Regulation	REGULATION (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC. The implementation date is February 18, 2024. **Regulations/Standards:** (EU) 2023/1542 **Cases:** BYD, AION
VECTO/HDV Emission Simulation	EU 2017/2400 is aimed at commerical vehicle emissions and energy consumption and requires manufacturers to use the simulation tool VECTO to simulate the CO2 emission and energy consumption for the entire vehicle. Due to the diversity of configurations and testing challenges associated with HDVs, the EU has opted for a computer simulation-based approach, known as VECTO (Vehicle Energy Consumption calculation TOol), to determine emissions and energy consumption. Starting from 2019, the certification process for CO2 emissions and fuel consumption has been integrated into the type approval process for specific vehicle groups. **Regulations/Standards:** (EU) 2017/2400 **Cases:** BYD
New Machinery Regulation	The New Machinery Regulation (EU) 2023/1230 was adopted on 14th June 2023 and applies on a mandatory basis as of 20th January 2027. The regulation mainly update the scope of application, update the EU conformity assessment process, and add new technical requirements related to cybersecurity and artificial intelligence. All machinery placed on the EU market before 20th January 2027 must comply with the current Machinery Directive 2006/42/EC. Manufacturers are allowed to state on an EU Declaration of Conformity that such machinery also conforms with Machinery Regulation (EU) 2023/1230 if applicable. **Regulations/Standards:** (EU) 2023/1230 **Cases:** None
ELV&RRR Directive	The increasing use of complex composite materials also poses special challenges for the dismantling, reuse and recycling of end-of-life vehicles. Proposal for a regulation of the European parliament and of the council on circularity requirements for vehicle design and on management of end-of-life vehicles, amending Regulations (EU) 2018/858 and 2019/1020 and repealing Directives 2000/53/EC and 2005/64/EC.The range is M1, N1. **Regulations/Standards:** (EU) 2018/858, (EU) 2019/1020 **Cases:** None

European Union

MDR & IVDR	Medical device CE certification is to ensure that medical devices comply with the requirements of EU regulations, including safety, performance and quality standards. Medical device CE certification usually involves rigorous review of the product's design, manufacturing and quality management systems, and may require audit by a Notified Body. This certification helps to ensure the safety and effectiveness of medical devices, protect the interests of patients and users, and improve the overall level of the healthcare industry. **Regulations/Standards:** (MDR) 2017/745, (IVDR) 2017/746 **Cases:** None

Germany

Whole Vehicle and Components	The German Road Traffic Act (Straßenverkehrsgesetz - StVG) stipulates that all motor vehicles used on roads must be type-approved. The Federal Motor Transport Authority (Kraftfahrt-Bundesamt - KBA) grants type-approvals for complete and incomplete vehicles and for vehicle components (parts, systems, separate technical units) in accordance with national and international statutory regulations. The KBA also grants type-approvals in accordance with some other regulations that are not directly related to road traffic (e.g. exhaust gases emitted by mobile machinery). **Regulations/Standards:** Art. 30 StVZO, Art. 22 StVZO, eKFV **Cases:** Minju, HuaNuoDal
Small Electric Vehicle	The Federal Motor Transport Authority (Kraftfahrt-Bundesamt - KBA) developed and implemented Small Electric Vehicle Ordinance (Elektrokleinstfahrzeuge-Verordnung - eKFV) in 2019. eKFV incorporates the terms of the MobHV, adds provisions for electric balancing vehicles, and replaced MobHV after formal implementation. German eKFV was officially released and implemented on June 15, 2019. Manufacturers of electric balance vehicles must guarantee electric balance vehicles sold to Germany type approved, an ABE type approval certificate is obtained to ensure that consumers can register and use the vehicle legally. **Regulations/Standards:** eKFV **Cases:** None

France

Whole Vehicle	In France, all the new vehicles must obtain WVTA (Whole Vehicle Type Approval) before entering the market. As a member state of EC (European Commission), France accepts WVTA according to 2007/46/EC Directive. Meanwhile, manufactures can follow French national scheme to apply for national individual and small series type approvals. **Regulations/Standards:** Regulation (EU) 2018/858, Book III of Regulatory part of French Traffic Laws **Cases:** None

Norway

Whole Vehicle and Components	According to The Norwegian Public Roads Administration (NPRA) regulations, all imported vehicles must pass the type approval of Norway before they can enter the Norwegian market. There are different approval schemes for imported vehicles: EC Type Approval, Individual Approval and National Type Approval. EC Type Approval of vehicles: If the imported vehicle has been granted EC type approval, this is valid in Norway as well. EC type approval is issued to vehicle manufactures and does not depend of the importer. **Regulations/Standards:** 2007/46/EC, LOV-1965-06-18-4, FOR-2012-07-05-817 **Cases:** None

Ukraine

Whole Vehicle	According to the vehicle regulations formulated by the Ministry of Infrastructure of Ukraine, local manufactured or imported vehicles must obtain the Type of Approval Certificate before entering into market. Ukraine became a Contracting Party to the Geneva Agreement of 1958 in 2000, Ukraine is purposefully harmonizing its legislation with EU legislation and UNECE regulations regarding automotive safety. Ukraine accept vehicles that comply from Euro-2 to Euro-6. **Regulations/Standards:** Basic adoption of EU legislation and UNECE regulations **Cases:** None

Brazil

Whole Vehicle	Brazilian vehicle type approval is regulated by two governmental departments, namely IBAMA (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis) and SENATRAN (Secretaria Nacional de Trânsito), of which IBAMA is responsible for environmental protection while SENATRAN is responsible for vehicle safety. Only when a vehicle type obtains both LCVM certificate (Licença para Uso da Configuração de Veículo ou Motor - LCVM) from IBAMA and CAT certificate (Certificado de Adequação à Legislação de Trânsito - CAT) from SENATRAN, it is deemed to have been certified and qualified to be commercialized in Brazilian market. CATA as SENATRAN officially licensed agency is located in Sao Paulo, Brazil, CATA provides CAT application and vehicle registration service for vehicle manufacturers. ATIC provides Brazilian type approval services for domestic OEMs in cooperation with Brazilian certification body CATA. **Regulations/Standards:** SENATRAN Ordinance No. 990/2022, IBAMA Ordinance No. 167/1997, IBAMA Ordinance No. 17/2002, ABNT NBR 15145/04, ABNT NBR9714/99, etc. **Cases:** BYD, GAC, smart, Launch Design
Automotive Components and Goods	Our INMETRO certification service scope covers LED Light Sources, Road Lamps, Automotive Parts, Motorcycle Parts, Bicycle Parts, Dangerous Goods Transportation, Child Seats, Photovoltaic Products, Pressure Vessels, Household Appliances, Children's Toys and Supplies, Building Structure, Personal Protective Equipments, Explosive Atmosphere, Medical Equipments etc.. ATIC has been authorized by major Brazilian local certification bodies (OCPs) to perform INMETRO certification activities such as factory audits, sampling, and product testing in China and Asia Region. **Regulations/Standards:** Ordinance n. 368 of 08/09/2021, Ordinance n. 495 of 12/12/2021, Ordinance n. 9 of 17/01/2022 etc. **Cases:** CITIC Dicastal, ASBS, Xinyi Glass, POMLEAD, New Continent Tire
Agricultural and Road Machinery	In 2011, IBAMA issued the CONAMA Resolution 433/2011 to regulate agricultural and road machinery entering Brazilian market. IBAMA will issue LCVM certificate (Licença para Uso da Configuração de Veículo ou Motor - LCVM) to the manufacturer after testing and certification according to this ordinance. **Regulations/Standards:** CONAMA Resolution 433/2011, CONAMA Resolution 490/2018 & 492/2018, CONAMA Resolution 493/2019, ABNT NBR 15145:2004, ISO 362-1:2015, etc. **Cases:** Lonking, LOVOL
Telecom	The Brazilian National Agency of Telecommunications (ANATEL) is a special authority created by the general telecommunications law and the ANATEL conformity mark makes the product more reliable and safer for the society. Product manufactured in Brazil and other countries must be homologated by ANATEL prior to sales into the Brazilian market. ATIC works with Brazilian ANATEL certification bodies (OCDs) through which ANATEL certificates of conformity are issued, providing ANATEL one-stop certification services. **Regulations/Standards:** ANATEL ACT n° 7280/2020 **Cases:** FinDreams Technology, HMN Technologies, Jy-cables

Brazil

Explosion-proof Equipment	Explosive Atmosphere is an environment which contains gas, vapour, dust or fibers with oxygen, in such proportion that a spark from electric circuit or heating from a device may cause an explosion. Electrical equipment installed in these environments must be eliminated or isolated the source of ignition. Related electrical equipments need to comply with the Brazilian INMETRO Ordinance no. 115: 2022 and pass mandatory INMETRO certification in order to legally enter the Brazilian market. **Regulations/Standards:** INMETRO Ordinance no. 115: 2022 **Cases:** KAIFA, JIANGNAN EXPLOSION-PROOF ELECTROMECHANICAL
Metrology	Legal Metrology Board of INMETRO (DIMEL) is responsible for the development of Brazilian metrological regulations and measurement standards to ensure the safety and accuracy of product measurement, as well as the measurement accuracy is not falsified, to protect consumers, all products involving Brazilian metrology regulations and standards, except In addition to the Brazilian INMETRO/ANATEL certification, the Brazilian metrology requirements must also be met. **Regulations/Standards:** Resolution Conmetro no.11 of 10/12/1988, Resolution Conmetro no. 13 of 12/20/2006, Ordinance no.114 of 06/29/1998, Decree No. 6.275 of 11/28/2007, Resolution Conmetro no.08 of 12/22/2016 **Cases:** KAIFA
Occupational Safety and Health	Brazilian Regulatory Standards (as know as NR) are designed to regulate and provide guidance on mandatory procedures related to occupational safety and health to protect workers' rights. These standards are cited in Chapter V, Title II, of the Consolidation of Labor Laws (CLT), were approved by Ordinance No. 3214 on June 8, 1978, and are obligatory for all Brazilian companies governed by the Labor Law and are periodically reviewed by the Ministry of Labor and Employment. **Regulations/Standards:** Ordinance No. 3214 **Cases:** 3S INDUSTRY, Chengdu technofrp
Photovoltaic Products	On March 21, 2022, the Brazil National Institute of Metrology, Quality, and Technology INMETRO issued Ordinance no. 140/2022. From 24 months from the effective date of this Ordinance, all photovoltaic products entering the Brazilian market need to pass relevant testing and be registered with INMETRO according to the requirement of the new ordinance. From 36 months from the date of publication of this Ordinance, establishments that carry out distribution or trade activities must sell, in the national market, only equipment for the generation, conditioning and storage of electric energy in photovoltaic systems in accordance with the provisions contained in this Ordinance. **Regulations/Standards:** Ordinance no.140 **Cases:** Hanwha Solar

Brazil

LED Light Source	On February 16, 2022, the National Institute of Metrology, Quality and Technology - INMETRO granted Ordinance no. 69, which approve the Conformity Assessment Requirements for LED Lamps intended to enter Brazilian market. Twenty-four (24) months from the date of publication of this Ordinance, LED Lamps with device incorporated to the base shall be traded by wholesalers and retailers in the Brazilian market solely in conformity with the requirements herein approved and duly registered with INMETRO. The certificates granted under the old INMETRO Ordinance on March 13, 2015 No. 144 should be subject to the transitional rules in this Ordinance, and the validity of the certificate should be adjusted based on the date of grant as a reference. From the date of certificate issue, the validity of the certificate is 4 years. **Regulations/Standards:** Ordinance no.69 **Cases:** Cnlight, Anhui SHILIN
Street Lamp	Brazil INMETRO (Brazilian National Institute of Metrology, Standardization and Industrial Quality) officially issued Ordinance No. 62 on February 17, 2022, which updated the Luminaires Requirements for Road Lighting. Ordinance No. 62 has come into effect on March 3, 2022, and replace Ordinance No. 20/2017. **Regulations/Standards:** Ordinance No. 62/2022 **Cases:** Zhongshan AiXuan, Foshan Ningyu
Medical Health	The National Health Surveillance Agency or ANVISA (Agência Nacional de Vigilância Sanitária) is the Brazilian regulatory agency that is responsible for the approval and supervision of food, cosmetics, tobacco, pharmaceuticals, health services, and medical devices. In Brazil, the production, import, storage, transportation and sale of these products are required to obtain the qualification certificate issued by ANVISA. ANVISA collaborates with customs and airports to approve the import and export of medicines, biological products, and biological samples. **Regulations/Standards:** RDC No.40, OF AUGUST 26, 2015, DRC No.185, OF OCTOBER 22, 2001, RDC No.7, OF FEBRUARY 10, 2015 etc. **Cases:** Santec Holding, PENTAX Medical

North America

Whole Vehicle	As provided by National Traffic and Motor Vehicle Safety Act, Clean Air Act, Motor Vehicle Information and Cost Savings Act, Motor Carrier Safety Improvement Act, and Americans with Disabilities Act, all motor vehicles and motor vehicle equipment prior to entering the U.S. market shall meet regulations and other related provisions established by the Department of Transportation (DOT), and the Environmental Protection Agency (EPA) regarding motor vehicle safety, pollutant emissions and fuel economy, and get certified or approved from such administrations. Regulations/Standards: FMVSS regulation Cases: BYD, Windrose

North America

Automotive Components - DOT	The Vehicle Safety Act requires that regulated items of motor vehicle equipment manufactured for sale in the United States be certified to comply with all applicable FMVSS. Motor vehicle equipment items that are not subject to the FMVSS do not require certification. However, such items may be found (by either NHTSA or the manufacturer) to have a safety-related defect, and if so, the manufacturer will have an obligation to furnish owners of the equipment with notification of, and a remedy for, the defect, usually at no charge to the consumer. **Regulations/Standards:** FMVSS regulation **Cases:** Windrose, ShengHuaBo Group, VAST
Automotive Components - AMECA	The North American Parts Compliance Program (ECP) promoted by AMECA (The Automotive Manufacturers Equipment Compliance Agency, Inc.) is a centralized, voluntary, one-stop process. It is a procedure for informing the government, industry and the general public that motor vehicle safety components have been tested in AMECA authorized laboratories and that they meet relevant standards. Products with an AMECA certificate will be more easily procured by North American buyers and users. AMECA provides product testing related services by authorizing third-party laboratories. Only test reports issued by AEMCA authorized laboratories will be approved by AMECA. **Cases:** ShengHuaBo Group, VAST
Safety Glass	The North American Safety Glass Certification Committee - SGCC was established to encourage the maintenance of the highest standards among safety glass manufacturers to enhance public safety, encourage and cooperate to develop safety glass performance standards, and plan, organize, guide, coordinate and maintain safety glass material certification procedures. Ensure that safety glass products meet the relevant standards or performance requirements adopted or approved by the Commission. For buyers and users, the SGCC certification mark means that the licensor (manufacturer) ensures that its safety glass material is produced in accordance with ANSI Z97.1 and/or 16 CFR 1201 and/or CAN/CGSB 12.1 standards. US federal regulations, numerous state regulations, city regulations, and building codes require ANSI Z97.1 and/or 16 CFR 1201 and/or CAN/CGSB 12.1 standards for safety glass materials installed in specific locations. **Regulations/Standards:** NSI Z97.1, 16 CFR1201, CAN/CGSB 12.1 **Cases:** None
Insulating Glass	The North American Insulating Glass Certification Board (IGCC) was established in 1977 to meet the expectations of insulating glass manufacturers, consumers and other interested parties to purchase insulated glass products for commercial and residential use nationwide. The ever-increasing demand for quality and performance. **Regulations/Standards:** ASTM E 2190 Standard Specification for Insulating Glass Unit Performance and Evaluation, Gas Content Initial and After Weathering (GCIA) **Cases:** None

North America

Helmet	Since its inception in 1957, the Snell Memorial Foundation has independently tested the manufacturer's helmets. Its first helmet protection standard was issued for motor racing in 1959. Subsequently, motorcycles, equestrian sports, bicycles, roller skates and skateboarding, snowboarding and skiing, and other specific helmet standards for karting were also released. These standards relate to performance, not to specific materials or designs, and the Foundation regularly uses them. Specially designed test equipment to upgrade the specifications of its helmet performance characteristics to keep up with advances in materials, helmet technology and design. **Cases:** None
Telecom	The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states, the District of Columbia and US territories. An independent U.S. government agency overseen by Congress, the Commission is the federal agency responsible for implementing and enforcing America's communications law and regulations. The FCC's rules and regulations are in Title 47 of the Code of Federal Regulations (CFR), which are published and maintained by the Government Printing Office. **Regulations/Standards:** Title 47 of the Code of Federal Regulations (CFR) **Cases:** BYD, Windrose, ShengHuaBo Group, VAST
ATV	All-Terrain Vehicle or ATV means any motorized off-highway vehicle designed to operate on 3 or 4 wheels, using four low-pressure or non-pneumatic tires, with a seat designed to be straddled by the operator, and with handlebars for steering control. **Regulations/Standards:** ANSI/SVIA1-2007, 40 CFR parts 1051/1060/1068, US 40 CFR 205, Subpart D **Cases:** None

Chile

Whole Vehicle	According to the MTT regulations, all motor vehicles must pass the 3CV certification and obtain the Chilean Vehicle Type Approval Certificate before entering the Chilean market. 3CV vehicle type approval consists of Safety Certification and Emission Certification, and adopts corresponding standards for each vehicle classification. There are three sets of certification systems for vehicles: light and medium-sized vehicles certification system, heavy-duty vehicles certification system and buses certification system. In order to ensure that the cars sold in the market meet the safety technical requirements and emission standards stipulated by MTT/MMA, 3CV will randomly check one or more cars for Verification of Conformity once the car enters the Chilean market. **Regulations/Standards:** DS 26/2000, DS 22/2006, DS 54/97, DS 211/1991, DS 94/1994, DS 145/2017 etc. **Cases:** BYD, smart, Launch Automotive

Mexico

NOM	The Mexican government has established relevant standards for various products in accordance with the Mexican Federal Metrology and Standardization Law. The main government agency for the certification management of various products, including automotive products, is the Ministry of Economy of Mexico. In addition to standard and regulation revisions, it is also responsible for the designation and accreditation of product certification bodies and laboratories. The Norma Oficial Mexicana - NOM standards are mandatory, at present, Mexico has established a relatively complete NOM certification system for limited product categories, including electronic, electrical, communication products, lighting devices, medical equipment, tires, toys, and battery-driven productsThe related products shall hold a NOM certificate for custom clearance, circulation and sales in the market. Mexico does not recognize other national certificates and only recognizes its own NOM certificate. **Regulations/Standards:** NOM-001-SCFI-2018, NOM-208-SCFI, NOM-030-ENER, NOM-024-SCF, etc. **Cases:** BYD, smart, Launch Automotive

Peru

Whole Vehicle	The MTC (Ministry of Transport and Communications) is responsible for legislation related to transportation and communication, coordinating international and national transport matters, and overseeing the certification of automobile types. MINAM (Ministry of the Environment) formulates and issues regulations concerning vehicle emissions, ensuring their proper implementation. The DGCT (National Vehicle Registry Office), as a subsidiary of the MTC, is the executing body for vehicle certification. According to Peruvian regulations, all motor vehicles entering the Peruvian market must undergo formal certification by the DGCT to obtain approval and a Peruvian Automotive Type Approval Certificate before being allowed to circulate in the Peruvian market. **Regulations/Standards:** DS-058-2003-MTC, DS-029-2021-MINAN, DS-019-2018-MTC **Cases:** BYD, smart, Launch Automotive

Argentina

Whole Vehicle	The Ministry of Productive Development of Argentina is the responsible authority to issue Model Configuration License (LCM) for new vehicles intended to drive on public roads to manufactures and importers to guarantee the compliance with safety regulations. The complete vehicle certification process in Argentina includes importer and Manufacturer Registration, vehicle Safety Certification, vehicle Emission and Noise Certification. In addition, CHAS certification is required for more than 20 aftermarket parts and components. **Regulations/Standards:** Transport and Road Safety **Cases:** BYD, smart, Launch Automotive

Argentina

Automotive Components	Argentine Ministry of Industry's Regulation No. 91 of 2001 and Regulation No. 66 of 2008 established the mandatory certification system (Certificate of Homologation of Auto Safety Part - Certificado de Homologación de Autoparte de Seguridad - C.H.A.S.) for Argentine automotive aftermarket parts and safety units, which is applicable for both imported or local produced products. Related aftermarket parts shall be certified and registered with the Argentine Ministry of Industry before being allowed to be sold in the Argentine market. **Regulations/Standards:** Argentine Ministry of Industry's Regulation No. 91 of 2001 and Regulation No. 66 of 2008 **Cases:** smart, Launch Automotive, Changzhou Dongchen

Colombia

Whole Vehicle	According to Colombian regulations, all motor vehicles entering the Colombian market must pass the SNCA system certification, obtain a Colombian type approval certificate, and be registered at the Colombian Single Transit Unit (RUNT) and Single Window for Foreign Trade(VUCE) before they can be circulated in the Colombian market. **Regulations/Standards:** DECRETO 1595 de 2015, Ley 769 de 2002, Decreto 1471 de 2014, Resolución 8321 **Cases:** BYD, smart, Launch Automotive

Canada

Whole Vehicle	Transport Canada (TC) is mainly responsible for road transportation and rail transportation in Canada. Vehicles and parts of the specified categories must be approved by TC when exported to Canada and comply with the Canadian Motor Vehicle Safety Act and safety regulations. The safety regulations are based on the Canadian Motor Vehicle Safety Standards (CMVSS). The Minister of Transportation is responsible for the management and enforcement of the Motor Vehicle Safety Law and designates inspectors to be responsible for certification-related matters. **Regulations/Standards:** Canadian Motor Vehicle Safety Standards (CMVSS) **Cases:** BYD, GWM
Snowmobile	The Canadian Motor Vehicle Safety Regulations developed by the Transportation Agency of Canada (CTA) and Transport Canada (TC) require that all general types of snowmobiles manufactured and sold in Canada comply with the requirements of SSCC/11. The U.S. Environmental Protection Agency and the Canadian Environmental Protection Agency set EPA certification requirements for snowmobiles. **Regulations/Standards:** SSCC/11 Supplement **Cases:** None

Ecuador

Automotive Components	The main tasks of National Transit Agency (ANT) of Ecuador, is formation and implementation of state policy in the spheres of transport, use of the airspace of Ukraine, road management, provision of postal services. According to the vehicle regulations of Ecuador, local manufactured or imported vehicles must comply with Ecuador Regulations and obtain the approvals before entering into market. The National Transit Agency (ANT), through the Directorate of Regulation of Land Transportation, Traffic and Road Safety in the head office, grants a certificate of the homologation of electric vehicles. **Regulations/Standards:** Adopting UNECE Regulation **Cases:** BYD, GWM

Panama

Whole Vehicle	The agency that regulates market access for automotive products in Panama is the Panamanian Transit and Land Transportation Authority (ATTT), the Ministry of Transportation, which is responsible for vehicle safety and environmental requirements. According to Panamanian regulations, starting February 9, 2025, all motor vehicles entering the Panamanian market must comply with minimum safety requirements, and manufacturers should prepare their own compliance materials (ECE certificate or FMVSS report) and submit certificates of technical mechanical inspection and pollution gas control before they can be circulated in the Panama market. **Regulations/Standards:** Act No. 656, Executive Order No. 38 **Cases:** BYD, GWM

Gulf Cooperation Council (GCC)

Whole Vehicle	Since January 1, 2005, the Gulf Standards Organization (GSO) has overseen GCC certification for motor vehicles and tire products in line with Gulf standards, with the certification recognized across all GCC member countries. Vehicles must also meet national regulations for member countries. **Regulations/Standards:** GSO Standards, <List of GSO Technical Regulations and standards for Motorcycles, Mopeds, Tricycle, ATV & UTV> **Cases:** FOTON, CLW Group, Baoneng Motor, Guowei Motor

United Arab Emirates

Whole Vehicle	The UAE Cabinet Resolution No. (12) of 2018, issued by the Prime Minister, prohibits the import or sale of 14 categories of automotive spare parts unless they are registered under the UAE's ECAS (conformity assessment scheme) and have obtained a certificate of conformity. **Regulations/Standards:** GSO 2025 model year, UAE.S/GSO 1712 **Cases:** FOTON

Saudi Arabia

Whole Vehicle	According to Saudi Arabia's "Saudi Product Safety Plan" (SALEEM) by SASO, a Shipment Certificate of Conformity (SCoC) must be applied for on the SABER platform before any products enter the country, as it is required for customs clearance. SABER the registration of conformity certificates for local suppliers and manufacturers. **Regulations/Standards:** SASO Regulations **Cases:** FOTON, CLW Group

Turkey

Whole Vehicle	Turkey is a party to the UN WP29 1958 Agreement with the mark E37 and can issue E-Mark certificates. At the same time, Turkey applies the EU harmonization regulations, recognizing the validity of the e/E-Mark certificate issued by EU member states. Turkish automotive product type approval body is the Turkish Ministry of Industry and Technology. The General Directorate of Industry (SGM) under the Ministry of Industry and Technology of Turkey is the type approval authority. For the import of vehicles with e/E-Mark certificates, the Turkish Standards Institute (TSE) under the Ministry of Industry and Technology is directly responsible for the implementation.

Turkey

Whole Vehicle	**Regulations/Standards:** • Regulation on type approval and market surveillance and inspection of motor vehicles and trailers, their parts, systems and separate technical units (MARTOY) • Regulation on type approval and market surveillance and inspection of agricultural and forestry vehicles (TORTOY) • Regulation on type approval and market surveillance and inspection of two- or three-wheeled motor vehicles and four-wheeled motorcycles (MOTOY) **Cases:** BYD

Israel

Whole Vehicle	Israeli Ministry of Transportation and Road Safety, abbreviated as MOT, and was established in 1948. The Ministry of Transport and Road Safety is responsible for the planning, development and arrangement of integrated transportation infrastructures and systems, in order to ensure the safety of mobility and logistics services, which will contribute to economic and social growth in Israel. **Regulations/Standards:** IMR 2024 **Cases:** Dayun Auto, XPENG, GEELY

South Africa

NRCS Certification	The National Regulator for Compulsory Specifications (NRCS) was established on 1 September 2008, in accordance with the provisions of the National Regulator for Compulsory Specifications Act, (Act no.5 of 2008) (NRCS Act). It's within the area of responsibility of the Department of Trade and Industry (DTI). The NRCS's certification scope includes promoting public health and safety, environmental protection and ensuring fair trade. This mandate is achieved through the development and administration of technical regulations and compulsory specifications as well as through market surveillance to ensure compliance with the requirements of the compulsory specifications and technical regulations. The South African Bureau of Standards (SABS) is a national legal institution established under the National Standards Act of 1945 and amended by the latest edition of 2008. It is a neutral third-party certification body in South Africa, responsible for system certification and product certification in South Africa. **Regulations/Standards:** NRCS Act **Cases:** BYD

Nigeria

SONCAP Certification	Two major schemes of the Standards Organization of Nigeria (SON) for determining conformity to standards are:Mandatory Conformity Assessment Program (MANCAP): this is a mandatory program which ensures that all locally manufactured products conform to the relevant Nigerian Industrial Standards (NIS) prior to sale or export. SON Conformity Assessment Program (SONCAP): SONCAP checks goods pre-shipment to ensure that imports into Nigeria are in conformity with the applicable NIS or approved equivalents. **Regulations/Standards:** Nigerian Industrial Standards (NIS) **Cases:** None

Kenya

PVoC Certification	The Kenya Bureau of Standards (KEBS) began implementing the Pre-Export Standards Compliance Verification Program (PVoC) on September 29, 2005, a conformity assessment and verification process for specific commodities for each exporting country to ensure imported products. Quality and health and safety of Kenyans and environmental protection are in accordance with Kenyan technical regulations and mandatory standards or approved equivalent standards. All goods in the PVoC catalogue must be issued with Certificate of Conformity (CoC) before shipment, and products not included in the PVoC inspection product list are subject to port of destination inspection. **Regulations/Standards:** Pre-Export Verification of Conformity (PVoC) **Cases:** None

Egypt

Whole Vehicle	When foreign automotive manufacturers intend to export complete vehicles to Egypt, there are clear regulations for the type approval of certain vehicle models. To export vehicles to Egypt, automotive manufacturers for certain models not only need to obtain the CoC (E-Mark) certificate from the relevant authorities but also must undergo scrutiny from various departments or agencies, including the General Organization for Export and Import Control (GOEIC), the Egyptian Organization for Standardization and Quality (EOS), Egyptian Customs, among others. **Regulations/Standards:** Standard No. 8153 / 2018, Standard No. 8322 / 2020, Standard No. 8433 / 2021, Standard No. 4505-1 / 2005, Standard No. 4505-2 / 2005, Law number 4 OF 1994, Egypt Telecommunication Regulation Law Law No. 10 of 2003, UN Regulation No. 48 **Cases:** BYD

Australia

Whole Vehicle and Components	The Road Vehicle Standards Rules 2019, which cover the operational aspects of the RVSA, were made in February 2019. The RVSA will replace the existing Motor Vehicle Standards Act 1989 (MVSA) and deliver an updated and modernized system to regulate the first provision of road vehicles to the Australian market. In Australia, the entire process from application to obtaining an Identification Plate is called Certification. The entire certification process is managed by Australian Department of Infrastructure, Transport, Regional Development and Communications. **Regulations/Standards:** ADR Regulations **Cases:** CHERY, BYD, PANMI, SAPW, GAC, smart, JMC, VAST
Child Restraint System	Australian mandatory standards have specific requirements for the design, construction, safety performance, instructions for use, labeling and packaging of automotive child restraint systems. According to Australian mandatory standards (AS/NZS 1754: 2013), child restraint system means the devices which used with adult safety belts to restrain child passengers to reduce their risk of physical injury or death in an accident. **Regulations/Standards:** AS/NZS 1754: 2013 **Cases:** None
Measurement Instruments	Unless a class of instrument has been specifically exempted, the national legislation requires that every measuring instrument that is in use for trade be of a pattern approved by the Chief Metrologist. A certificate of approval is issued for each instrument pattern after it has satisfactorily completed its approval testing and assessment. It is an offence for an instrument which is not of an approved pattern (or specifically exempted from this requirement), to be used for trade purposes. The NMI can provide information on whether the instrument comes under the definition of in use for trade. The NMI has also established a nationwide network of trade measurement inspectors to supervise traders and service license holders. Regulations/Standards: NMI Regulations Cases: None
Electrical	Australia and New Zealand have jointly formed an ERAC Electrical Regulatory Committee and an E3 Energy Efficiency Plan. ERAC is responsible for the certification management of basic safety, telecommunications, radio, electromagnetic energy, and ECM projects for Australia and New Zealand electrical appliances. Only after meeting the above requirements can the compliance mark RCM be added to products. The E3 program is responsible for managing the minimum energy consumption requirements for Australian and New Zealand electrical products. **Regulations/Standards:** AS/NZS 4417.1, AS/NZS 4417.2, AS/NZS 3820, Telecommunications Act 1997, Greenhouse and Energy Minimum Standards Act 2012 (GEMS Act), etc. **Cases:** BYD

New Zealand

Whole Vehicle	All vehicles entering New Zealand must be checked, certified, registered and licensed before you can use them on the road. This process is called Entry Certification. Some requirements must be met before the motor vehicle enters New Zealand, and some require periodic inspections and relevant certifications (WoF/CoF) during use. **Regulations/Standards:** Land Transport Rule **Cases:** GAC, smart, JMC
Electrical	Australia and New Zealand have jointly formed an ERAC Electrical Regulatory Committee and an E3 Energy Efficiency Plan. ERAC is responsible for the certification management of basic safety, telecommunications, radio, electromagnetic energy, and ECM projects for Australia and New Zealand electrical appliances. Only after meeting the above requirements can the compliance mark RCM be added to products. The E3 program is responsible for managing the minimum energy consumption requirements for Australian and New Zealand electrical products. **Regulations/Standards:** AS/NZS 4417.1, AS/NZS 4417.2, AS/NZS 3820, Telecommunications Act 1997, Greenhouse and Energy Minimum Standards Act 2012 (GEMS Act), etc. **Cases:** BYD

Public Transport Standardized On Road Test Cycles

SORT	As electric buses or plug-in hybrid buses gradually become more popular, UITP founded E-SORT in 2017, the aim of the current project "E-SORT" is to measure, in a reproducible way, the energy consumption and the zero emissions range of a bus. ATIC can provide multi-location (test site, manufacturer's test site) SORT or E-SORT testing and issue official test reports based on manufacturers' requirement. **Cases:** BYD, ZXAUTO

Environmental product declaration

EPD	An EPD is a certified Environmental Product Declaration, which reports environmental data over the life cycle of products in accordance with the international standard ISO 14025. Environmental Product Declarations (EPDs) present relevant and verified environmental information about goods and services from a life cycle perspective. **Regulations/Standards:** ISO 9001, ISO 14001, ISO 14040, ISO 14044, etc. **Cases:** BYD

Global Solutions	
Automotive Wheel	Automotive wheel acts as a rigid wheel that fixes the inner edge of the tire, supports the tire and is loaded together with the tire, its performance is critical to the vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world have mandatory certification requirements for the wheels in the aftermarket. **Cases:** CITIC Dicastal, Wanfeng Group, POMLEAD, LIZHONG WHEEL, Longkou Hyundai Sungwoo
Automotive Lighting	Motor vehicle lighting and signaling devices are one of the active safety components of motor vehicles, and their performance is critical to vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world have mandatory certification requirements for automotive lighting and signaling devices. **Cases:** VAST, Brano, FSL, Koito, Valeo, Jiali Automobile Lamp, Changzhou Yongguang
Motorcycle Helmet	Motorcycle helmets have a very important protective effect on drivers and occupants in traffic accidents. Therefore, most countries in the world require motorcycle drivers and occupants to wear helmets and require mandatory certification of helmets. **Cases:** Jinhua Kesuda, LIVALL
Automotive Tires	Motor vehicle tires are one of the most important safety components of motor vehicles, and their performance is critical to vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world established mandatory certification schemes for tires **Cases:** Long March, SNCTIRE
Automotive Traction Battery	Automotive traction batteries are one of the most important safety components of motor vehicles, and their performance is critical to vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world have mandatory certification requirements for automotive traction batteries. **Cases:** CATL, SVOLT, FinDreams Technology, Forsee Power
Automotive Brake Components	Motor Vehicle Brake Components are one of the most important safety components of motor vehicles, and their performance is critical to vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world have mandatory certification requirements. **Cases:** ITT, AP Racing, Lotus, Airui, Jinli Group
In-vehicle Radio Device	With the development of ICT technology, automobiles are moving towards the direction of so called Intelligent Connected Vehicles. By carrying advanced devices such as on-board sensors, controllers, actuators, etc., and integrating modern communication and network technologies, information exchange and sharing between vehicles, roads, people, and clouds, therefore complex environment perception, intelligent decision-making, collaborative control and other functions are realized. Many countries and regions require mandatory certification for these devices or systems. **Cases:** FinDreams Technology, HMN Technologies, JY-cables

Global Solutions	
Automotive Seating System	There are compulsory certification requirements for automotive seats and headrests, bus seats, school bus seats, agricultural vehicle seats, etc. in all major automotive markets. For automotive seats, it is generally necessary to use the whole vehicle to perform safety tests such as seat strength, energy absorption, seat anchorages strength and luggage impact etc. For bus seats and school bus seats, many countries also have specific mandatory regulations therefore specific homologation procedure shall be applied **Cases:** VISCOUNT HI-TECH, JYJX, Huaze Electronic
Child Restraint System	The Child Restraint System is one of the important safety protection system for child occupants, various international organizations or countries have put forward different technical requirements and conformity assessment methods for Child Restraint System. **Cases:** LERSA
Automotive Safety Glazing	Automotive Safety Glazing are one of the important safety components of motor vehicles, and their performance is critical to vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world have mandatory certification requirements for automotive safety glazing. **Cases:** Xinyi Glass, Fuyao Glass, Trinasolar, TM Glass
Audible Warning Devices	Audible warning device (also referred to as horns) which is intentionally operated by a driver, emit an acoustic signal which is intended to give audible warning of the presence of a vehicle in a dangerous road traffic situation. In order to ensure vehicle safety and road traffic safety, many countries around the world have mandatory certification requirements for the audible warning device in the aftermarket. **Cases:** FinDreams Technology
eCall	eCall is a system that provides an automated message to the emergency services following a road crash which includes the precise crash location. The in-vehicle eCall is an emergency call (an E112 wireless call) generated either manually by the vehicle occupants by pushing a button or automatically via activation of in-vehicle sensors after a crash. When activated, the in-vehicle eCall device will establish an emergency call carrying both voice and data directly to the nearest emergency services (normally the nearest 112 Public Safety Answering Point, PSAP). **Cases:** FinDreams Technology
Automotive Devices	Devices for indirect vision is one of the most important safety components of motor vehicles, and their performance is critical to vehicle safety. In order to ensure vehicle safety and road traffic safety, many countries around the world established mandatory certification schemes for devices for indirect vision. **Cases:** BYD

Part 03 Testing

ATIC

In most of the cases, our experts witness testing in more than 120 partner labs as well as manufacture's facilities globally according to different certification schemes or homologation procedures. We select laboratory based on efficiency, professionalism and costs.

EV/HEV, Battery, e-Motor	1. Homologation testing acc. to GB/EU/ECE/AIS /FMVSS/SAE/KMVSS etc. 2. Validation Test 3. Test & Improve
ADAS & Autonomous Driving	1. Intelligent Speed Assistance (ISA) 2. Advanced Emergency Braking System (AEBS) 3. Driver Drowsiness and Attention Warning (DDAW) 4. Driving Assistance Functions (ACSF A, ACSF B1, ACSF C, CSF, ESF, RMF) 5. ELKS, ALKS 6. Automated Driving System (ADS)
Cybersecurity	1. UN R 155, ISO/SAE 21434 2. Penetration Testing 3. Functional & Interface Testing 4. Fuzz Testing 5. Vulnerability Scanning
Automotive Components	1. Battery System, e-Motor, E/E Components 2. Lighting Device, Rear Mirror&CMS 3. Tire and Wheel 4. Safety-Belts, CRS, Seating System 5. Brake Lining/Disc/Drum, Fluids, Hose, Axle 6. Helmet 7. eCall, In-Vehicle Radio Device 8. Glazing Material
Global Road Test	1. Proving Groud Test ATIC works with global automotive laboratories, where labs offer the infrastructure and ATIC manages the projects. Our services include test witnessing, report preparation, and type approval applications. In countries and regions with particular requirements, ATIC teams up with local institutions for one-stop testing and homologation solutions.

Part 03 Testing

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Global Road Test	2. Real-World Driving Reliability Test ATIC European team is well-equipped with advanced vehicle testing equipment and conducts tests on EU public roads. ATIC team manages projects, issues test reports, applies for type approvals, and offers customer support. 3. Road Adaptability Test ATIC collaborates with global organizations and experts specialising in automotive testing, inspection, and certification. Our road testing services Europe, Southeast Asia, South America, North America, the Middle East, and Russia. 4. Track Lap Speed Test ATIC can assist clients in renting world-famous circuit venues and arranging to test with experienced drivers. ATIC aims to ensure a comprehensive evaluation of vehicle performance in a safe and professional environment. Our services include: circuit-leasing, driver recruitment and training, vehicle maintenance andmodification, reporting and certification. **Cases:** BYD

Part 04 Inspection

ATIC

ATIC provides one-stop services including factory audit and sampling, inspection, witness test, used-car inspection, digital quality management system, and more.

Factory Audit and Sampling	ATIC professional auditor team has been authorized by more than 20 authorities or certification bodies worldwide to provide professional and efficient factory audit, sampling and witness testing services for domestic, Asian and European manufactures using ATIC Digital Reporting System.
Inspection	Pre-shipment inspection (PSI) for automotive components, lighting appliances, electrical and electronic products, sampling and testing.
Used-car Inspection	Provide professional third-party vehicle condition assessment and technical inspection during the used-car transaction process, and issue inspection reports for used car value assessment and insurance assessment.
Digital Quality Management System	Tailor-made light weight digital quality management system for manufacturing companies, digitalization of quality management system through forms, processes, approvals, and databases to improve quality and efficiency.