



**中国汽车技术研究中心有限公司**

China Automotive Technology and Research Center Co., Ltd.

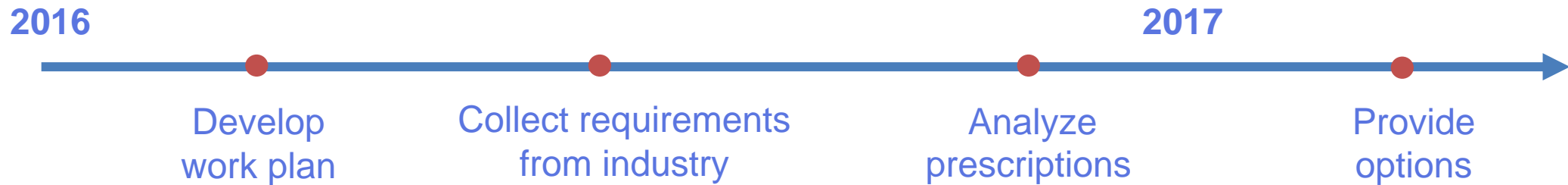
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**Applicability Analysis of Regulations and Standards for ICVs  
Practice in China, 2017**

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The National Technical Committee of Automotive Standardization launched this task in 2016, and released the report in 2017.

## Timeline:

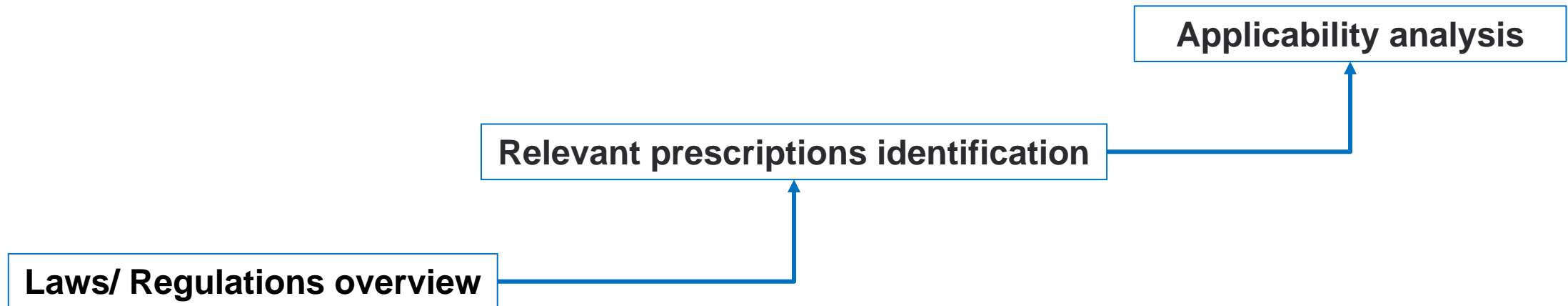


## Contents:

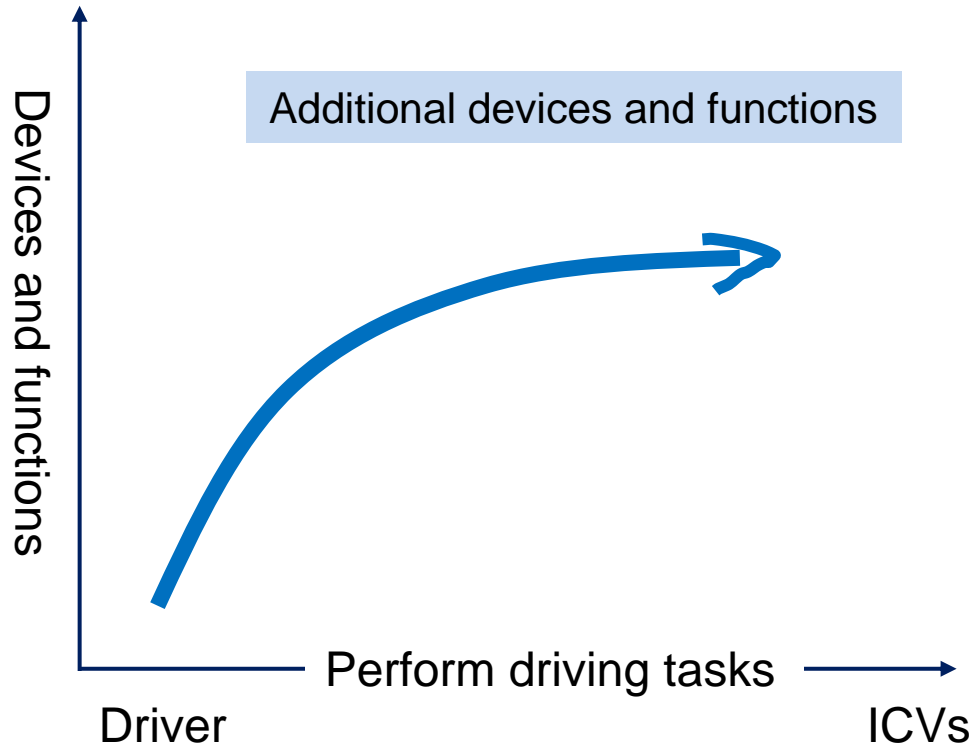
- Analyze the applicability of regulations, and mandatory national standards in China for ICVs.
- Identify the prescriptions that prohibit/ restrict (directly and indirectly) the development of ICVs.
- Propose amendatory options to these prescriptions.

## 23 laws and regulations:

- Related to vehicle, telecommunication, transportation, surveying and mapping, etc.
  - In terms of technology, ICVs need to meet the prescriptions of product manufacturing of vehicles, electronic technique and telecommunication, etc.
  - In terms of driving environment, ICVs need comply with laws and regulations on transportation, surveying and mapping, etc.



## 79 mandatory national standards for vehicles (excluding motorcycles).



- If prescriptions stipulate that driving tasks must be performed directly or indirectly by human drivers:
  - Additional devices and functions are **prohibited or restricted**.
- If the prescriptions allow vehicles to perform all of/ part of driving tasks:
  - Devices and functions equipped for human drivers might be **redundant**. Prescriptions only for human drivers to perform driving tasks will also become **redundant**.

# A typical example



Standard	Title	Overview
GB 17675-1999	Steering system of motor vehicles--Basic requirements.	<ul style="list-style-type: none"> <li>• First published in 1999, modified 70/311/EEC.</li> <li>• GB 17675-1999 specifies the basic requirements for the design and installation of automotive steering system structures.</li> <li>• GB 17675-1999 applies to categories M and N.</li> </ul>
<b>Associated standards</b>		
GB 11157-2011	The Stipulation Protecting Drivers from Being Injured by Motor Vehicle Steering Mechanism.	.....
GB/T 4782-2001	Road vehicles—Controls, indicators and tell-tales.	.....
<b>Prescriptions involved</b>		
Standard	Prescription	Interpretation
GB 17675-1999	2.2 Steering control mechanism	A mechanism directly operated by the driver to control the direction of the vehicle.
	.....	.....
GB 11157-2011	3.1 The steering wheel must be left.	The vehicle must not only have a steering wheel on the structure, but also be left mounted
	3.3 Steering operating device	A mechanism directly operated by the driver to control the direction of the vehicle.
.....	.....	.....
<b>Conclusion</b>		
Restricting the automatic steering function.		
.....		

- The applicability of prescriptions in the existing mandatory standards to the requirements of ICVs can be divided into two categories: **prohibition and redundancy**.
- Propose amendatory options, including **exemption, interpretation and amendment** to the identified prescriptions.

GB 17675-2021

## Applicability analysis table (an example)

Standard	Title	Applicable type			Driving Tasks				Level involved				Category		Amendment
		M	N	O	information perception	condition monitoring	speed control	direction control	L2	L3	L4	L5	redundancy	prohibition	Y/N
GB 17675-1999	Steering system of motor vehicles--Basic requirements	M	N		No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
.....															
.....															

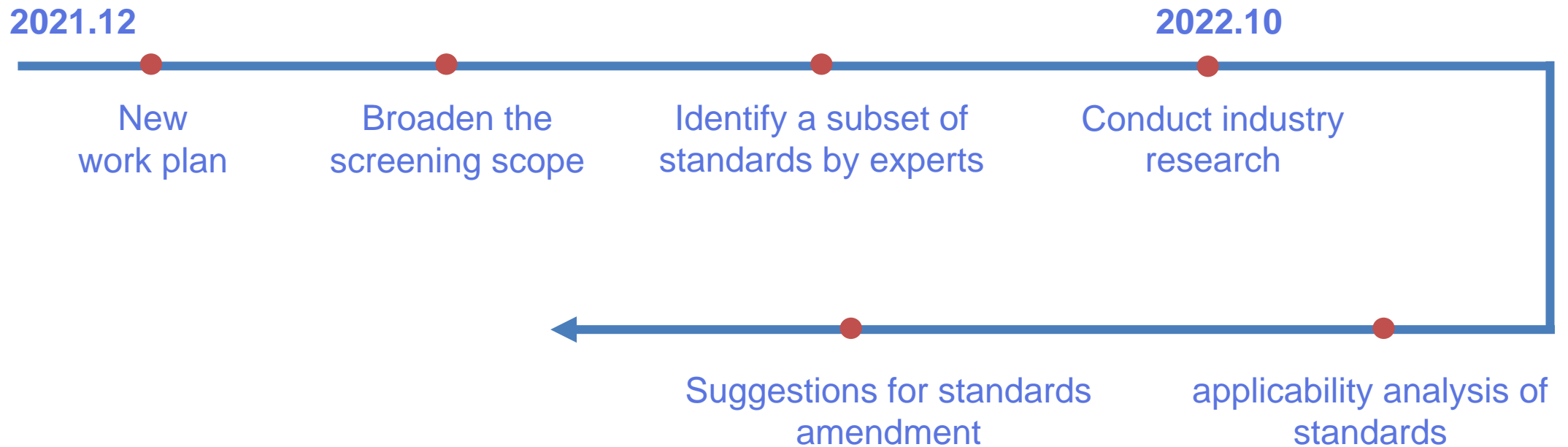
## Comprehensive suggestions

- Provide exemption for ICVs in mandatory national standards related to market access.
- Introduce the principles of “functional equivalence” and “effect equivalence”. On the premise of not reducing the functional effect of the vehicle system, it is acceptable to adopt new techniques and devices to vehicles.

# New applicability analysis task



A new applicability analysis task started at the end of 2021. The screening scope was expanded to include **National standards (mandatory and recommendatory) and trade standards**.



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