

Smart Roads in China

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Security Level:



Overall Government Targets - Connected and Automated Mobility

NDRC



中华人民共和国国家发展和改革委员会
National Development and Reform Commission

MIIT



中华人民共和国工业和信息化部
Ministry of Industry and Information Technology of the People's Republic of China

MOT



中华人民共和国交通运输部
Ministry of Transport of the People's Republic of China

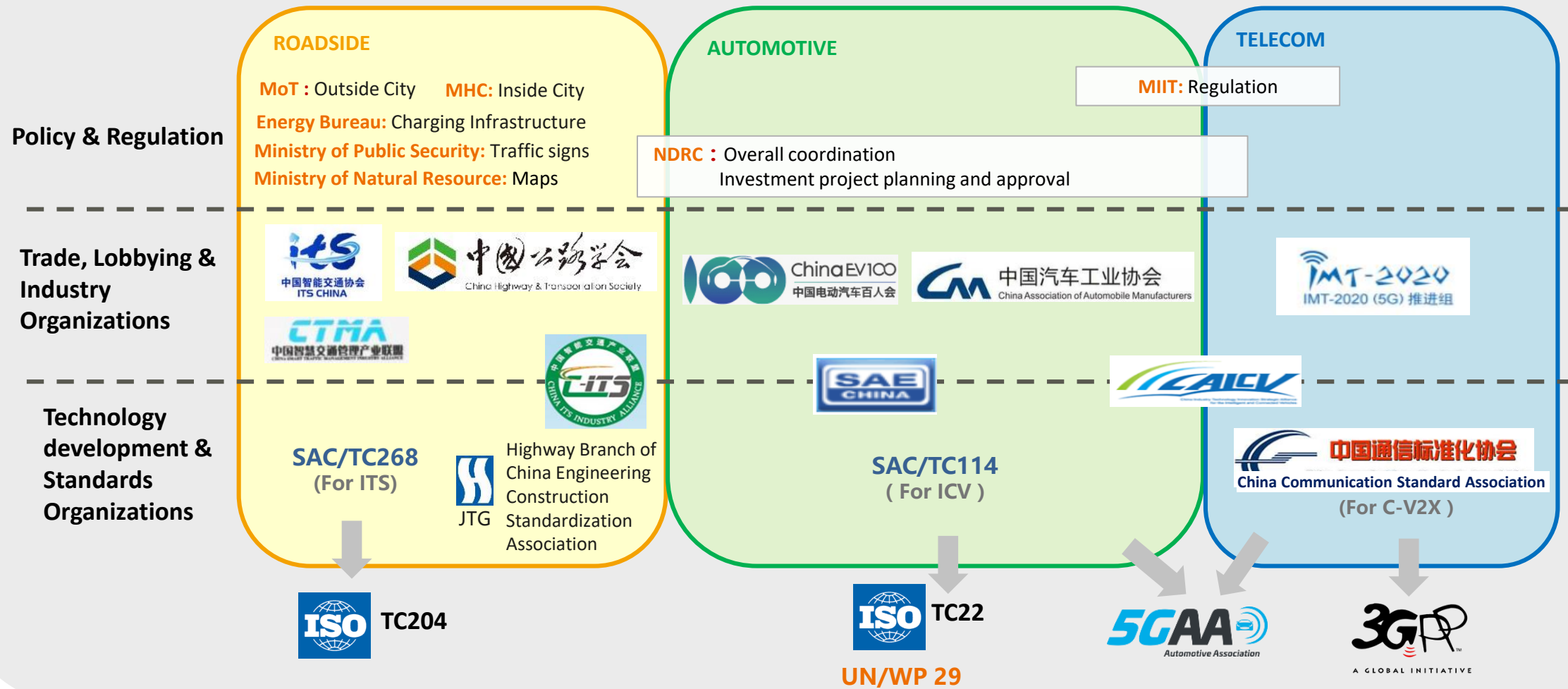
2025

- ✓ Industry ecosystem established, regulations in place
- ✓ Level 3 market penetration 30%
- ✓ Level 4/5 commercially available in selected geographical areas
- ✓ C-ITS, 5G C-V2X and smart road infrastructure deployment along highways and in cities well underway.

2030

- ✓ Level 3 market penetration 70%
- ✓ Level 4/5 in general use along highways

Industry Landscape



Smart Road Infrastructure Standardization



JTG/T

中华人民共和国行业推荐性标准 JTG/T XXXX.X—20XX

公路工程适应自动驾驶附属设施总体技术规范

General technical specifications for highway auxiliary facilities adapted
to automated driving

(征求意见稿)

20XX—XX—XX 发布 20XX—XX—XX 实施

中华人民共和国交通运输部发布

“General technical specification for highway auxiliary facilities adapted to automated driving”

- Scope: System architecture and technology requirements for roadside equipment and services.
- Draft completed and open for comments, to be finalized Q4 2020
- Led by the National Highway Research Institute



RloH



ICT Industry



Navigation Companies



Universities

- ‘Smart road levels’ (corresponding to ISAD) planned to be standardized during 2021 through SAC TC204.



Road Infrastructure Technology Providers

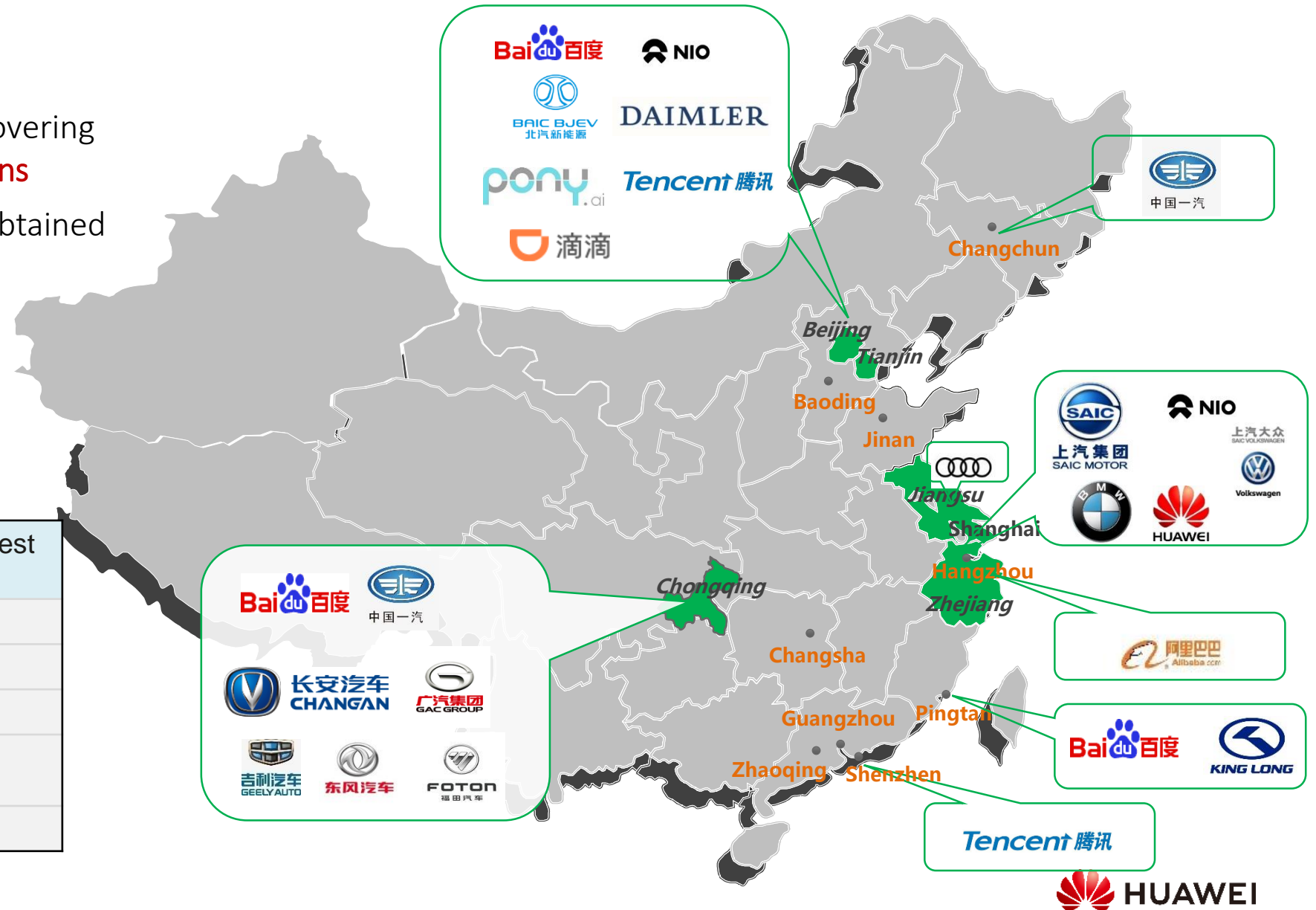
Cloud service providers	 阿里巴巴 Alibaba.com	 HUAWEI	 Tencent 腾讯	 Bai du 百度	 inspur 浪潮	
High-precision maps	 Bai du 百度	 NAVINFO 四维图新	 高德地图 amap.com	 EMG 易图通		
Edge Intelligence	 HUAWEI	 阿里巴巴 Alibaba.com	 inspur 浪潮			
Communication	 HUAWEI	 大唐电信 大唐电信科技产业集团	 NEBULA LINK 星云互联	 GENMICT 全通	 万集科技 HUAWEI TECHNOLOGIES	 Neusoft
Awareness	 aihua TECHNOLOGY	 HIKVISION Camera technology	 镭神智能 LeiShen Intelligent System LiDAR	 HUAWEI LiDAR & Camera technologies		
Positioning	 千寻位置 Qianxun SI	 北斗星通 BDStar Navigation				

Issued Road Test Licenses

By April, 2019

- **109 test licenses** issued covering **16 cities & highway sections**
- Currently **29 companies** obtained licenses.

Main Cities	Number of test licenses
Beijing	59
Chongqing	12
Shanghai	7
Pingtian (Commercial Vehicles)	7
Changsha	4



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