

Chinese Standardization Development

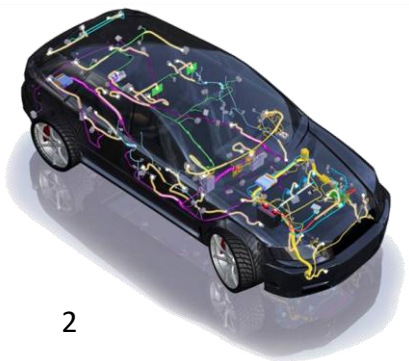
René Rongen – NXP Semiconductors

AEC RW Hsinchu - October 2026



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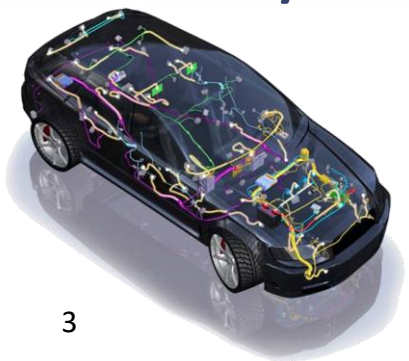
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Motivation

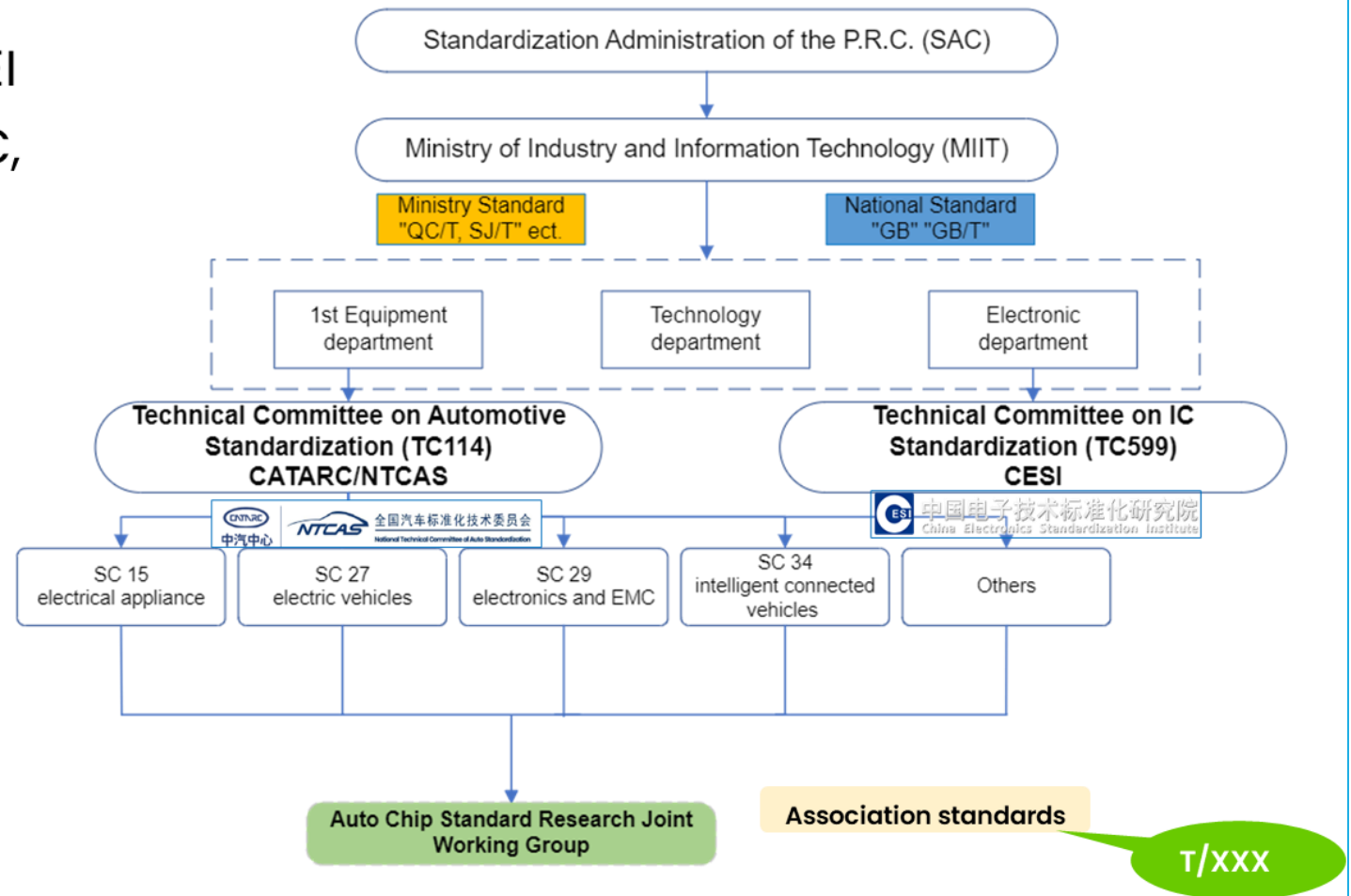
Why is this important for AEC?

- AEC has observed that for the creation of Automotive National and Industry Standards in China, contents from various AEC standards are being used and translated, while breaking the coherence between those standards.
- This means that by the time the GB(/T) documents will be published the content may already be out-of-date. Therefore, "transparent referencing" is a must.
- Therefore, AEC proposed to meet with a delegation of SAC/TC599 to discuss how to build a working relationship.
- Objective is to define an approach that assures exchange between AEC and the SAC/TC599 as well as technical alignment.



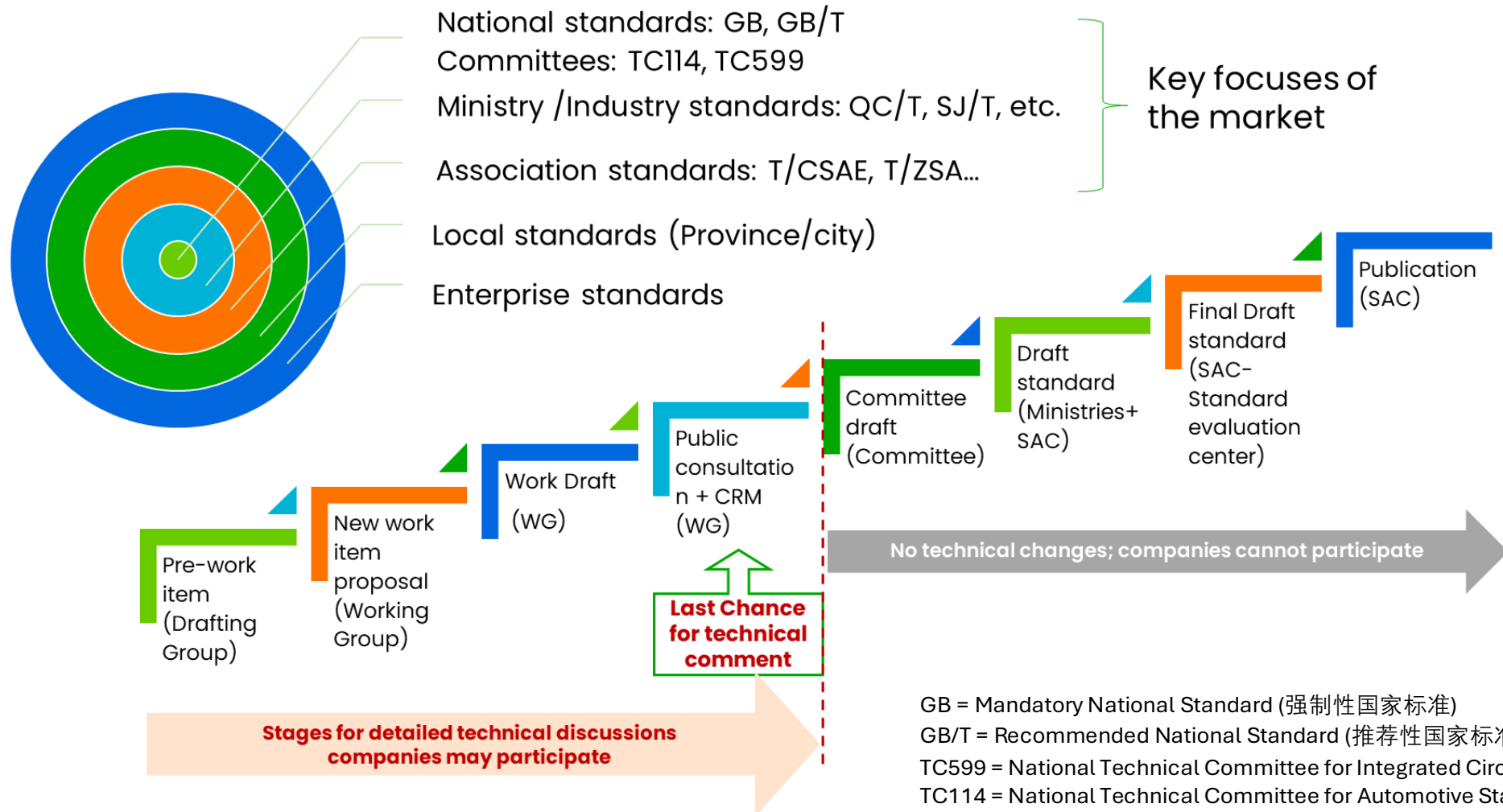
Automotive Semiconductor Standardization Stakeholders

- National and industry standard players: CESI, CATARC/CASRI, CEPREI
- Association standard players: NEVC, CACA, CACC, CAAM, CESA, CSAE, CAICV etc.



Courtesy Jane Li, Technical Regulatory Senior Engineer @ NXP

Standard Creation & Publication



Courtesy Jane Li, Technical Regulatory Senior Engineer @ NXP

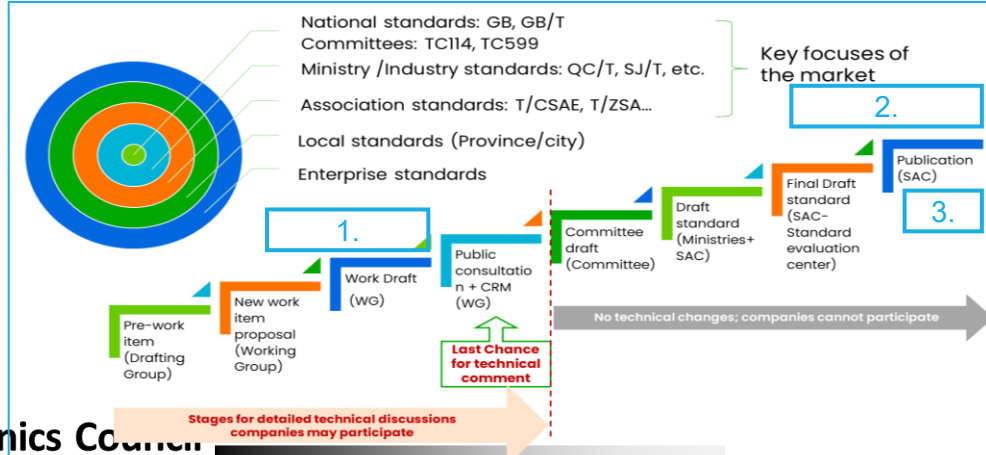
Status & Outlook: Product Quality/Reliability Standards

Current status China standards	➤ TC114 (Auto STD – Most members are Car OEMs and TIs) 2. [201-1]* General specification for environment and reliability of automobile chips - Reliability requirements & test methods annex in product standards: reliability for EV chips [201-16], EV BMS AFE, control chip, CAN/LIN, PHY, Switch... ➤ TC599 (IC STD – Semiconductors) (<i>CN Counterpart of IEC TC47 D,F</i>) 2. [201-2] Stress testing requirements of automotive integrated circuits 2. [201-3] Stress testing requirements of automotive discrete devices 3. [201-6] GB/T 48166-2026 Stress test qualification for automotive multichip modules (MCM) 1. [201-4] Automotive optoelectronic semiconductors stress testing requirements 1. [201-10] Guidelines for automotive integrated circuits electrical characterization 1. [201-11] Guidelines for zero defect of automotive semiconductor chips 1. [201-12] Automotive semiconductor Pb-free devices reliability testing requirements 1. [201-13] Automotive semiconductor devices using copper (Cu) wire interconnections reliability testing requirements * Standard category label in CN national auto chip standard system
Comparison to International standards	• TC114 – “201-1, 201-16” referencing TC599 “201-2, 3, 6” directly; some industry standards incorporating AEC Q100, JEDEC/IEC, AQC324 etc. with proposing test methods may deviate and new test items (e.g. LTSL, LTOT, LTOL for power modules) • [201-2, 3, 6] adoption of AEC Q100, 101, 104 – copyright issue • [201-4, 10~13] Taking AEC Q102, 003, 004, 005, 006 as references (modifications may apply) – copyright issue

National standards (GB/T):

1. 201-1: ~ Final draft standard stage (public consultation in Feb 2026)
2. 201-6: ~ Published GB/T 48166-2026
Trigger for AEC to reach out to TC599 (public consultation in Aug 2024).
201-2, 3: ~ Final draft standard stage (public consultation in Aug 2025).
3. New projects: GB/T 201-4; GB/Z* 201-10~13

*GB/Z: Guidance Technical Document of National Standards



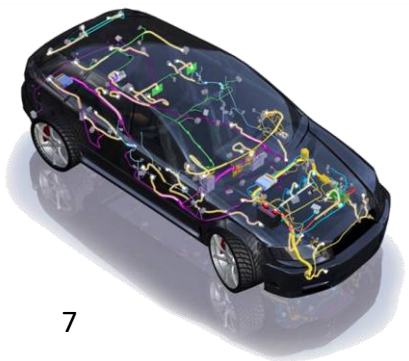
Automotive Electronics Council
Component Technical Committee

Courtesy Jane Li, Technical Standards Manager@ NXP

AEC Strategy

Status of Contacts with TC599 - Summary

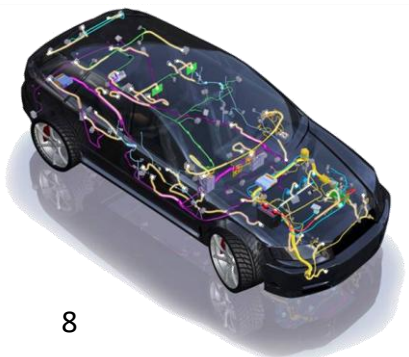
- After AEC sent a letter to TC599 to invite for a discussion on potential collaboration, a few meetings have been organized.
- Ways of working on document creation, receiving inputs, document approval process and publication have been exchanged.
- No meeting since May 2026, apart from contact between TC 599 secretary and AEC Vice President.



AEC Strategy

Status of Contacts with TC599 - Participants

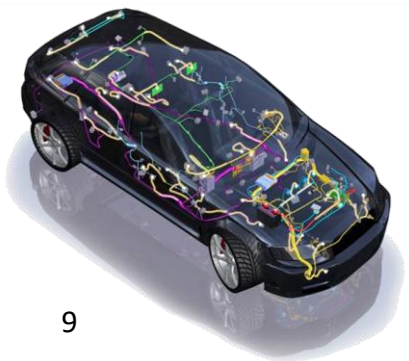
Name	Organization
Yanghuichen Lin	<i>TC599 Contact</i>
Qiu Zhang	<i>TC599 Secretary</i>
Yin Mengdi	<i>TC599 Automotive Reliability Standards</i>
Nan Jiang	<i>TC599 CESI</i>
Mike Buzinski	<i>AEC-chair / Microchip</i>
Rene Rongen	<i>AEC-vicechair / NXP</i>
Ulrich Abelein	<i>AEC-executive committee / Infineon</i>
Bassel Atala	<i>AEC-executive committee / STMicroelectronics</i>
Maurice Brodeur	<i>AEC-executive committee / Analog</i>
Carsten Ohlhoff	<i>AEC-executive committee / Aumovio</i>
Zhongning Liang	<i>AEC-executive committee / NXP</i>
Meng Tian	<i>AEC-member / Gigadevice</i>
Jenny Du	<i>AEC-member / Borgwarner</i>



AEC Strategy

Status of Contacts with TC599 – Questions to AEC

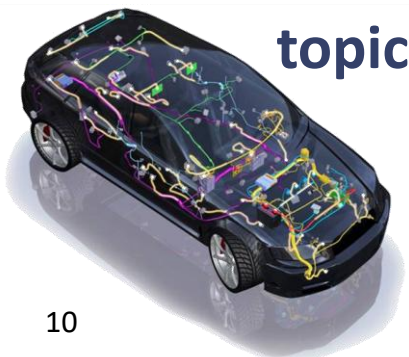
- What is the AEC roadmap in terms of adding other BLR test methods (AEC-Q007 - next to BL TC)?
- Regarding MEMs (AEC-Q103 series): What is the AEC roadmap for these standards? There seems to be particular interest in a standard for accelerometers.
- Concerning SiC and GaN (Wide Band Gap): Please share the most recent time schedule on both standards (that will be appendices to AEC Q101).
- Regarding AEC-Q101 (Discretes): A couple of comments and questions to AEC-Q101 were raised by TC599; a complete list will be shared with AEC for comment.



AEC Strategy

How to proceed?

- **Concerning TC599: sign an MoU and then further discuss co-operation as well as exchange roadmaps.**
 - This implicitly means that AEC needs to make a roadmap; as we currently do not have it.
- **Concerning TC114: initiate a similar discussion.**
- **Overall key topic: avoid “conflicting requirements” in documents published by AEC and TC599 / TC114.**
- **Request: we need volunteers from AEC member companies that are also active in TC599 / TC114 to join an AEC Task Force around Chinese Standardization Activities when it comes to technical discussions around specific standards/ topics in near future.**



AOB and Q&A

