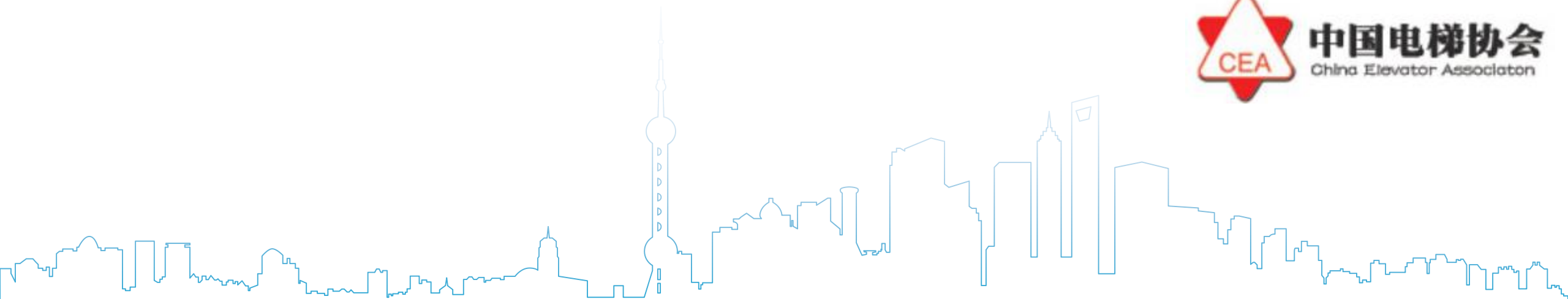




中国电梯协会
China Elevator Association



电梯标准发展动态

Survey of China Elevator-related Standards & Codes

China Elevator Association

The Status Quo of China Elevator Industry



- Unit Production of 2022
- Total: 1.1 million; decreasing 9.1% comparing with 1.21 million in 2022;
- Incl.Esc 85k, decreasing for 5 years from 120k; Total Export: 89k
- Multinationals: 60% in unit; 80% in sales, 90% in profit
- A truly global industry

- Typical Products: PMSM, Average 17 floors; 800/1000kg;

- Existing Installations: 9.5 million
- Registered Operating Installations: 8.8 million, +12%
- more than 80% of the installations operating less than 15 years

- Number of Players with Government Permits: 650
- Number of Maintenance companies: 16k
- Number of Employee: 1 million

- Good Future Prospects and Current Dillema

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CEN/TC 10 Standards

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Building design codes related to lifts

The Problems of Deploying the EN and ISO Codes

- Understanding The “New Approach”
 - Different philosophy, underlying logics, social background and governance
 - Different Legislation and Business Environment
- The Different History and Social Understanding of Codes
- EN and ISO code are at the class C level. Well application needs a lot of supporting Class B and A standards and good engineering practices
- Missing the quality requirement, especially Durability, Reliability, etc.
- The standard names have been misleading the industry and public
- Lack of professional buyers and engineering consultancy
- Lack of Good Market Surveillance, especially Conformity Assessment Capabilities
- No design and manufacturing, as well as Installation and maintenance guidelines
- Component standards

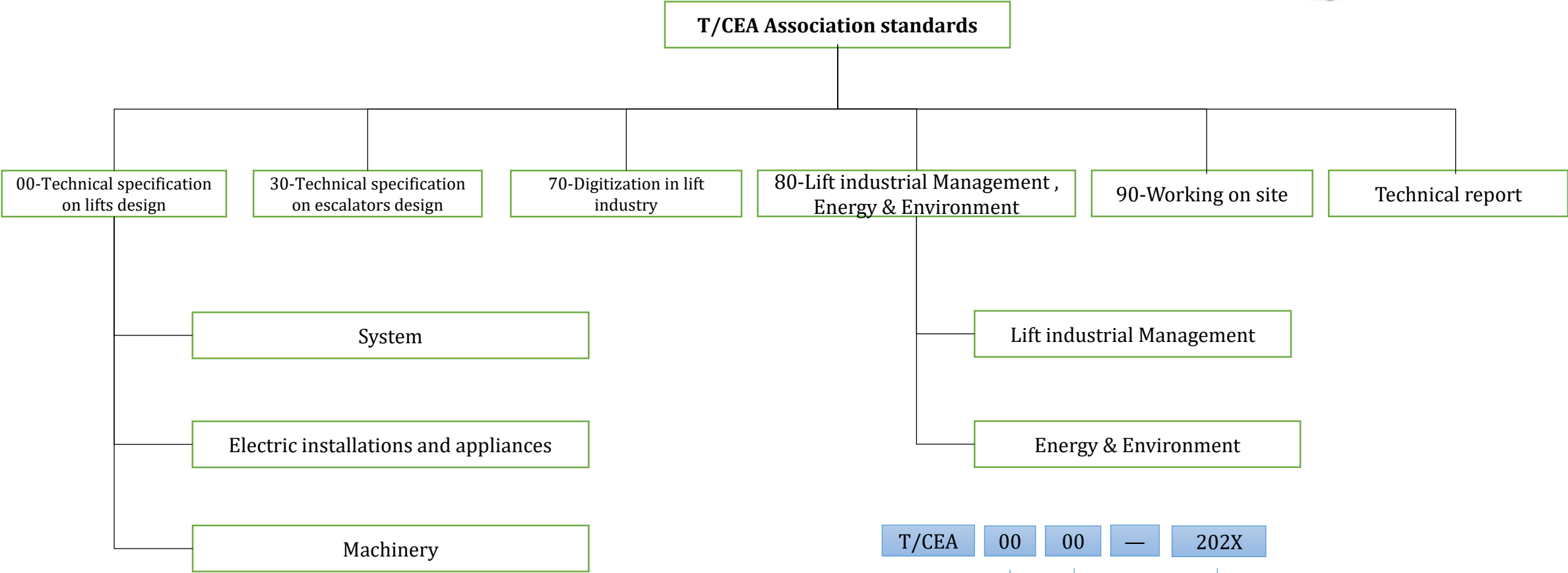
The Roles and Categories of CEA Standards

- The New National Standardization Law recognizes the legal status of association standards and encourages the capable associations to develop the voluntary standards according to the market needs
- CEA is writing many standards to support the good deployment of EN and ISO codes in China
- Categories of CEA Standards:
 - EHS : working safety standardization & Job Safety
 - design and manufacturing, as well as Installation and maintenance guidelines
 - Cybersecurity
 - Component and test standards; Brake,cable, rope and its terminals...
 - Business Environment, Purchasing and bidding documentations
 - Elevator Quality Assurance System and outsourcing standards
 - Standards in the Buyers' Perspectives, HD escalator

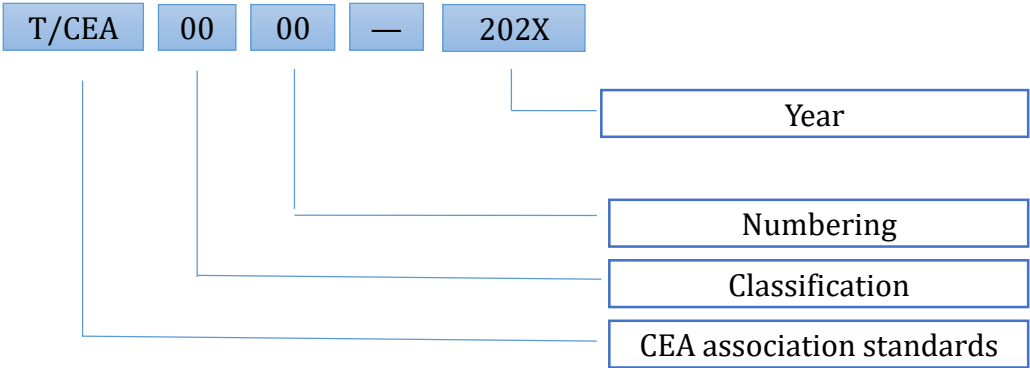
The Categories of CEA Standards

- Social Responsibility
 - Working Safety and Health
 - Eco-Design & Environment
 - Rescue & Equipment Companion Documentation
- Product Standards covering all the possible technical aspects
 - On RAMSED, Reliability, Availability, Maintainability, Safety, Environment and Durability
 - Supporting the implementation of National Standards with higher or more detail requirements
 - Market Urgently Need Standard Vacancies
- Manufacturing Process
 - Low cost, high quality and interchangeability
- Cybersecurity IOT and Big Data: Safety, Security and Privacy Protection and Intelligent Equipment and Device Interoperability Protocol

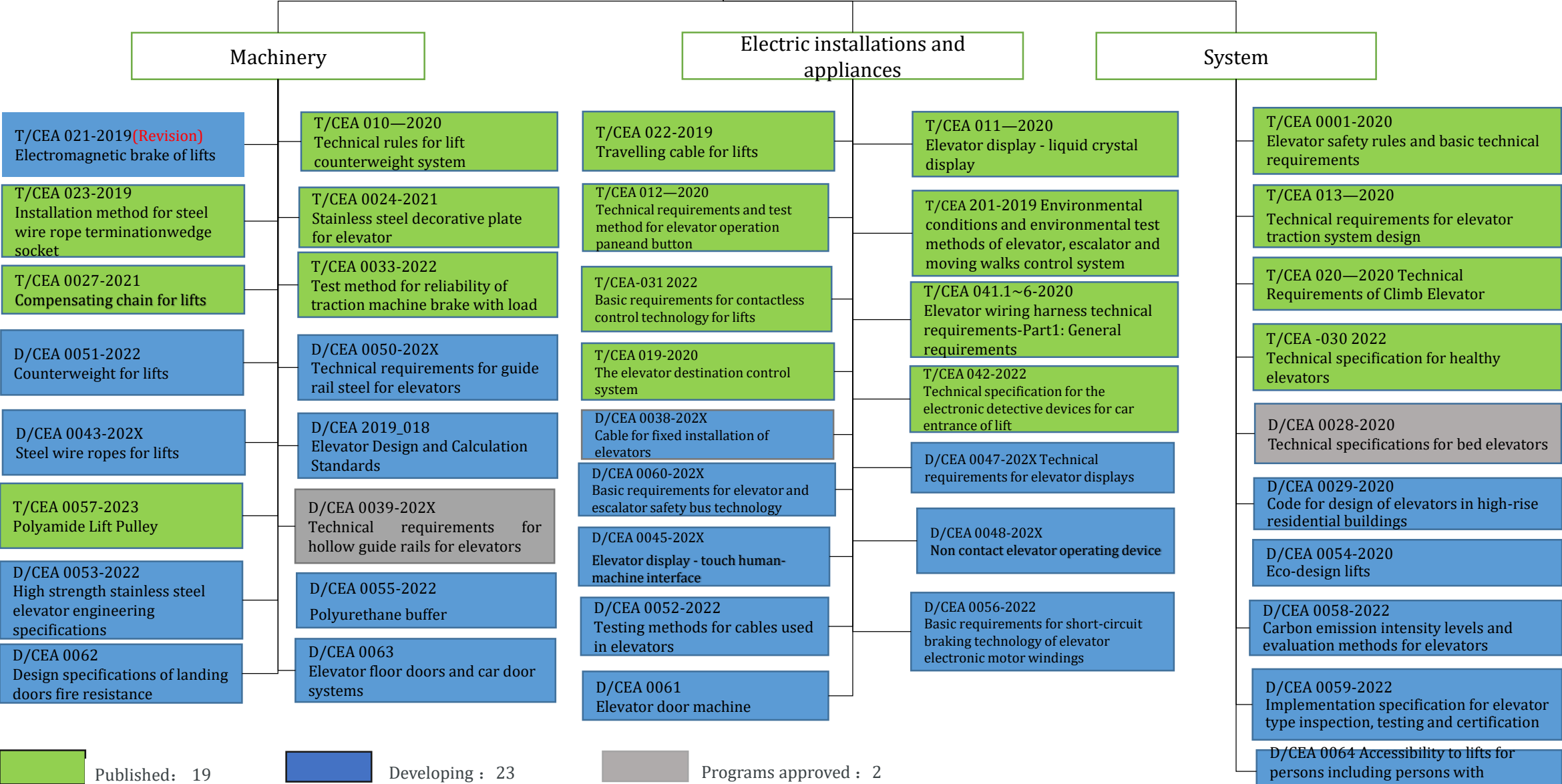
CEA Standards structure and coding rule



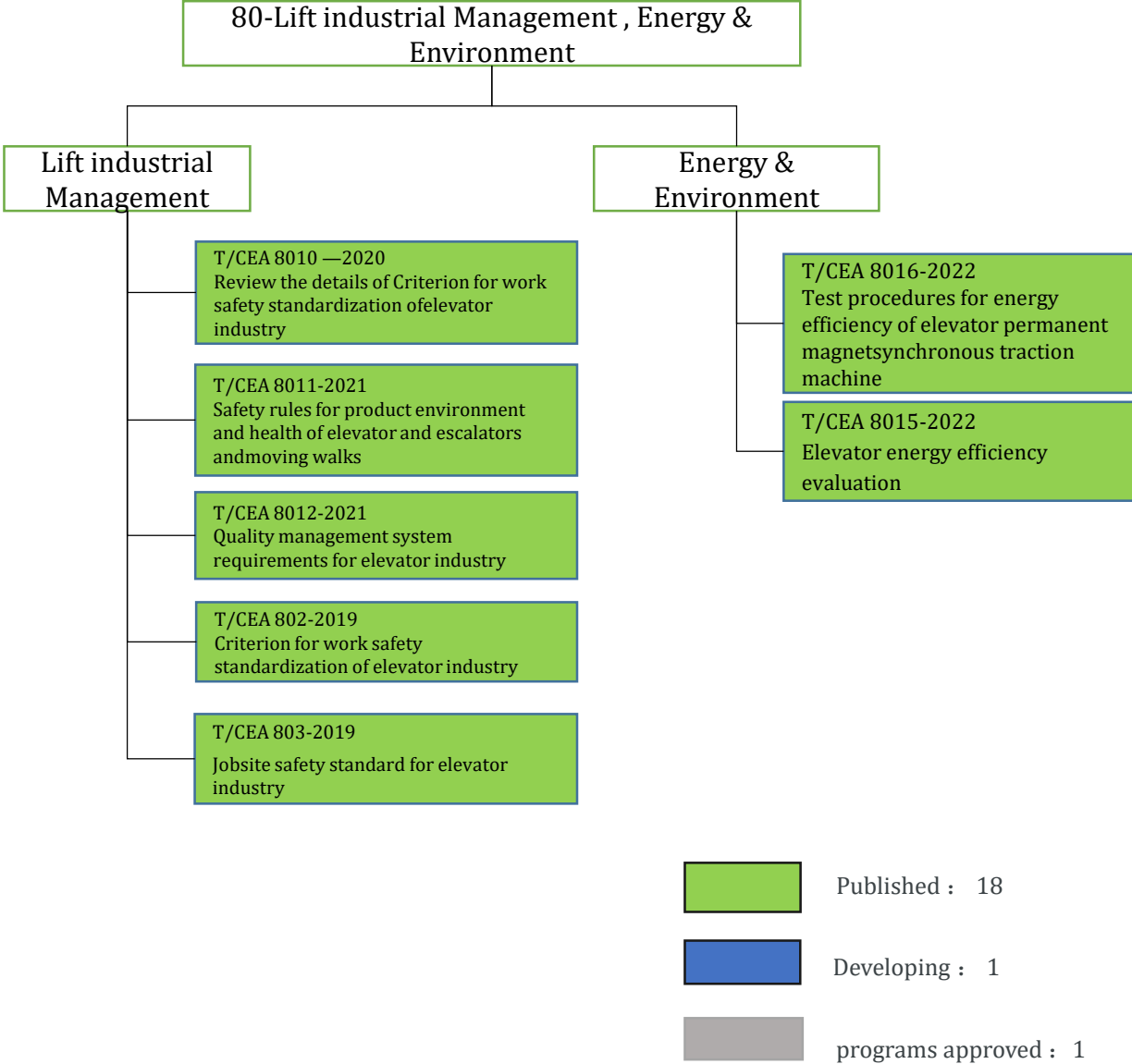
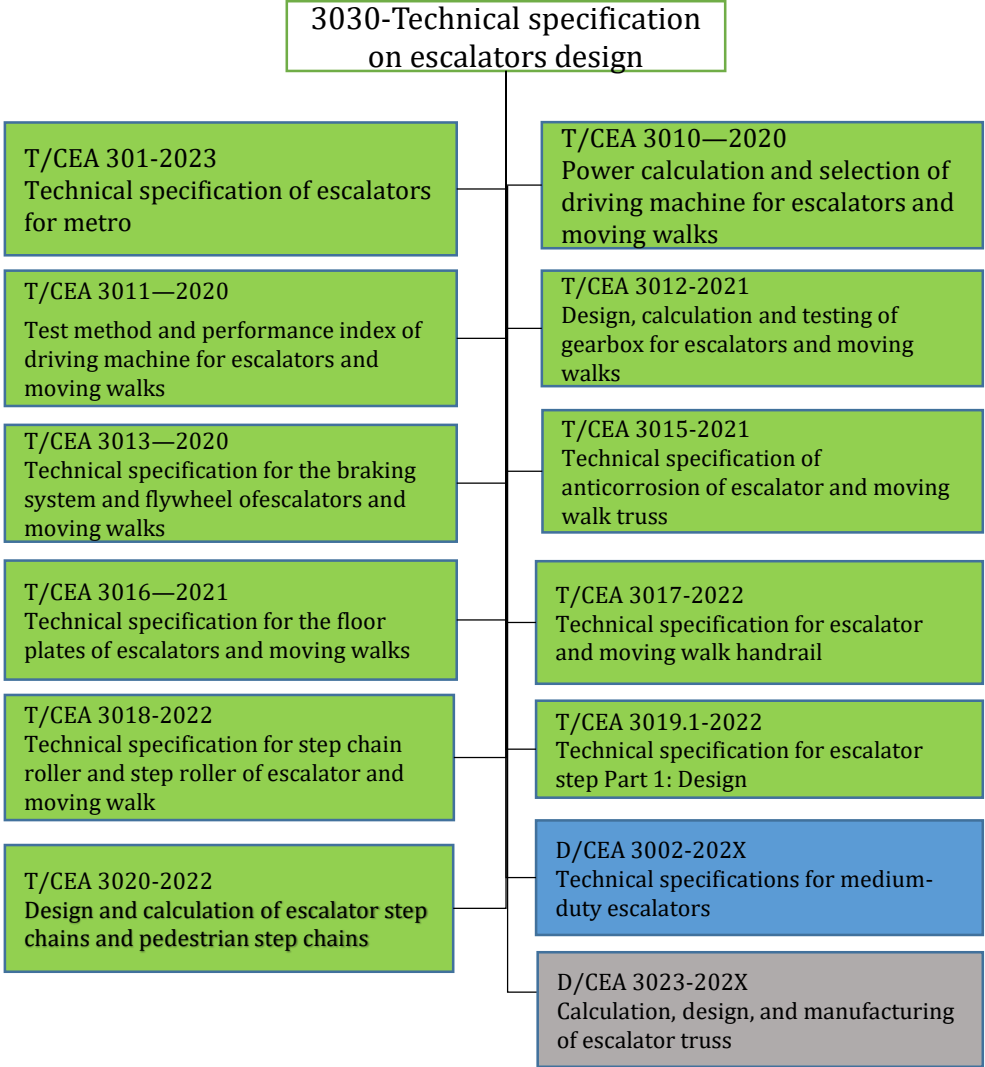
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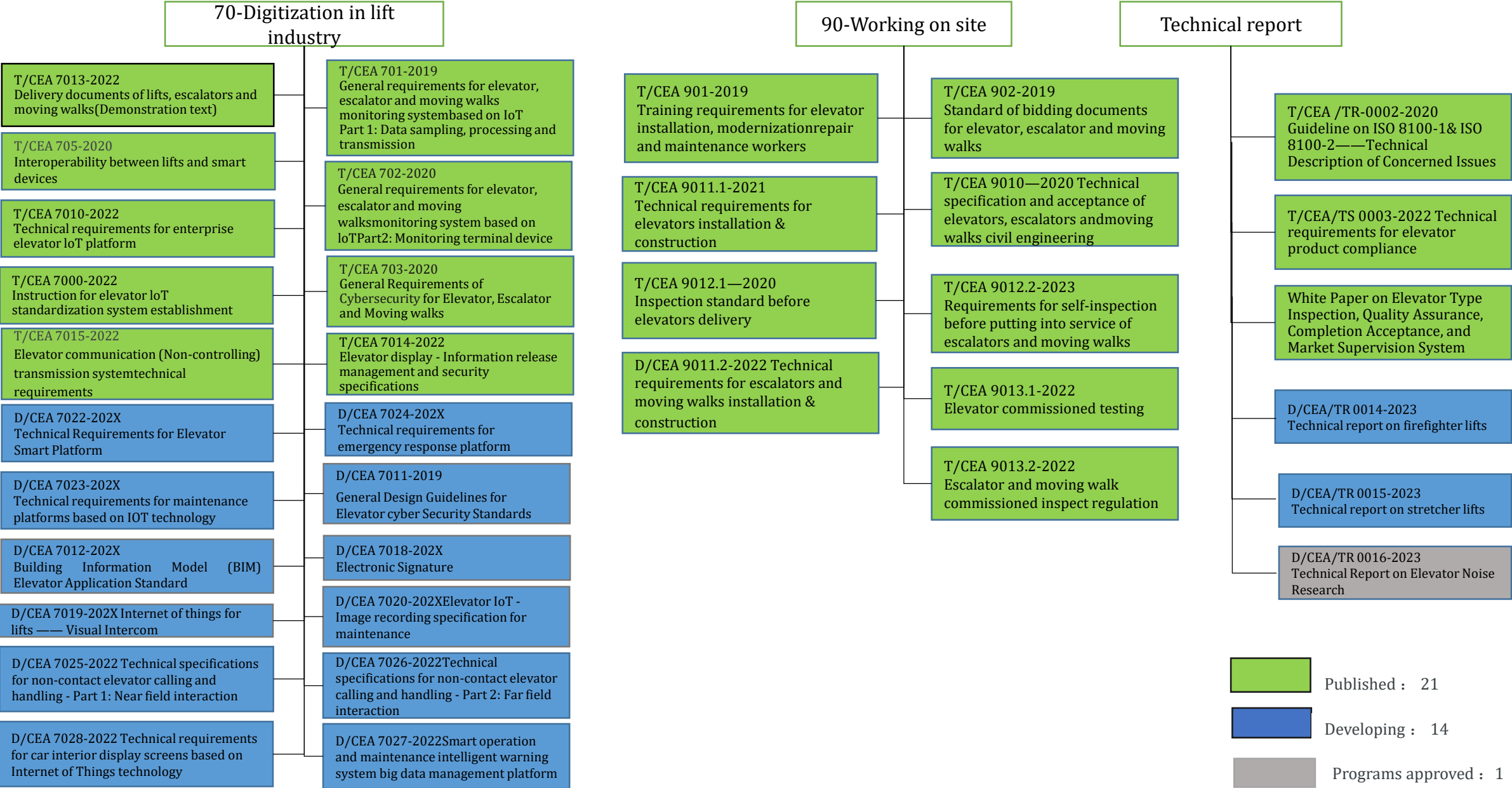
00-Technical specification on lifts design



CEA Association standards



CEA Association standards



SAC/TC 196 China National Standards



63 existing national standards and 11 new national standards

Note: check them on the National Standards Information Public Service Platform

✘As of the current year 2023, 11 national standards have been released.

Standards No	Name	Release	Implemented	Statue
GB/T 7025.1-2023	Lifts—Main specifications and the dimensions, arrangements for its cars, wells and machine rooms—Part 1: Lifts of classes I 、 II 、 III、 VI	2023-05-23	2023-05-23	implemented
GB/T 10058-2023	Specification for electric lifts	2023-09-07	2024-04-01	to be implemented
GB/T 10060-2023	Code for installation acceptance of electric lifts	2023-09-07	2024-04-01	to be implemented
GB/T 24475-2023	Remote alarm on lifts	2023-05-23	2023-12-01	to be implemented
GB/T 24476-2023	Internet of things for lifts, escalators and moving walks—Technical requirements of enterprise application platform	2023-05-23	2023-12-01	to be implemented
GB/T 24479-2023	Behaviour of lifts in the event of fire	2023-05-23	2023-12-01	to be implemented

SAC/TC 196 China National Standards



✘As of the current year 2023, 11 national standards have been released (continue)

Standards No	Name	Release	Implemented	Statue
GB/T 28621-2023	Safety rules for the construction and installation of new lifts in existing building	2023-09-07	2024-04-01	to be implemented
GB/T 42615-2023	Specifications for safety estimation of existing lifts	2023-05-23	2023-05-23	implemented
GB/T 42616-2023	Internet of things for lifts, escalators and moving walks—Technical specification of monitoring terminals	2023-05-23	2023-12-01	to be implemented
GB/T 42623-2023	Planning and selection of passenger lifts to be installed in office, hotel and residential buildings	2023-05-23	2023-05-23	implemented
GB/T 24804-2023	Rules for the improvement of safety of existing lifts	2023-09-07	2023-09-07	implemented

SAC/TC 196 China National Standards



The ongoing national standard programs for SAC/TC 196 include 5 items.

Programs Name	category	Statue
Specifications for safety estimation of existing escalators and moving walks	New Standard	Public inquiry
Lift machine	Revise	Under approval
Testing methods for electric lifts	Revise	Under approval
Safety rules for the construction and installation of service lifts	Revise	Under approval
Safety rules for the construction and installation of escalators and moving walks	Revise	Under approval

In August 2016, the Ministry of Housing and Urban-Rural Development issued the "Notice on the Reform of Standardization in Construction Engineering" (Jian Biao [2016] No. 166). The notice proposed the following goals for the reform of the construction engineering standardization system:

- Accelerate the formulation of fully mandatory standards and gradually replace the scattered mandatory provisions in existing standards with fully mandatory standards. The project titles of mandatory standards are collectively referred to as technical specifications.
- Prioritize the development of fundamental, general, and significantly influential specialized standards as recommended national standards, highlighting the basic requirements for public services. Recommended standards should not contradict mandatory standards.
- Encourage social organizations, such as associations and societies with legal person status and corresponding capabilities, to develop new technologies and standards that are missing in the market, based on industry development and market demand. These standards can be voluntarily adopted by the market. Group standards, after being selected through negotiations among relevant parties through contracts, can serve as technical references for construction activities.

Buliding Design Codes of China

Overview China construction legislation



Laws: Construction Law, Urban and Rural Planning Law, Law on Protecting Against and Mitigating Earthquake Disasters..

Administrative Regulations: Regulation on the Administration of Survey and Design of Construction Projects, Regulation on the Construction of Barrier-free Environments, Regulation on Energy Conservation in Civil Buildings, Regulation on the Administration of Earthquake Resistance of Construction Projects...

Department Rules of MOHURD: Provisions on the Supervision of Compulsory Standard for Project Construction, Measures for the Administration of Quality Testing of Construction Projects, Interim Provisions on the Administration of Fire Protection Design Review and Final Inspection of Construction Projects, Provisions on the Administration of Energy Conservation for Civil Buildings...

Rules on project construction issued by other ministries: Provisions on the Supervision and Administration of Fire Protection of Construction Projects (Ministry of Public Security), Detailed Rules for Formulation of Project Construction Standards in the Industrial Field (Ministry of Industry & Information Technology)...

Rules

Local Regulation: Measures for the Administration of Provincial Standards for Engineering Construction in Shanghai...

Documents issued by government departments and its affiliation : Jianke [2020] No.38 Notice on Further Strengthening the Management of Urban and Architectural Style (including restrictions on high-rise buildings, etc.); Jianke [2021] No.76 Notice on Strengthening the Management of Ultra-High-Rise Buildings in the Planning and Construction...

Standards

Mandatory National Standards

Voluntary National Standards

Voluntary Sector Standards

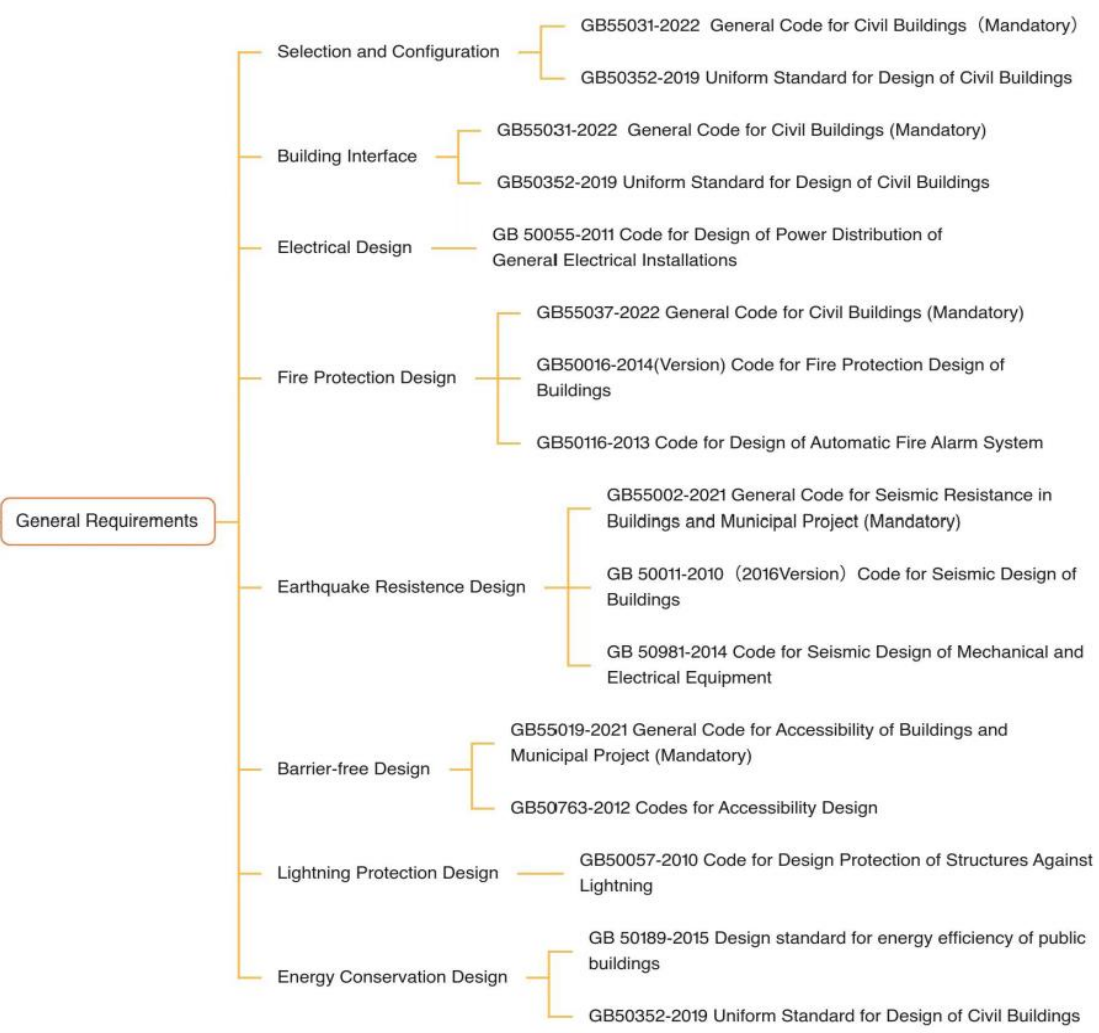
Voluntary Provincial Standards

Voluntary Association Standards

Buliding Design Codes of China



In construction engineering standards, elevators, escalators, and moving walkways are treated as electromechanical equipment installed in buildings. These standards encompass various aspects such as the selection and configuration of vertical transportation systems, electrical subsystems, fire safety, seismic resistance, accessibility, energy efficiency, and lightning protection, and set forth



Thank you !

