



GSC | 22
MONTREUX, SWITZERLAND



CCSA Activities

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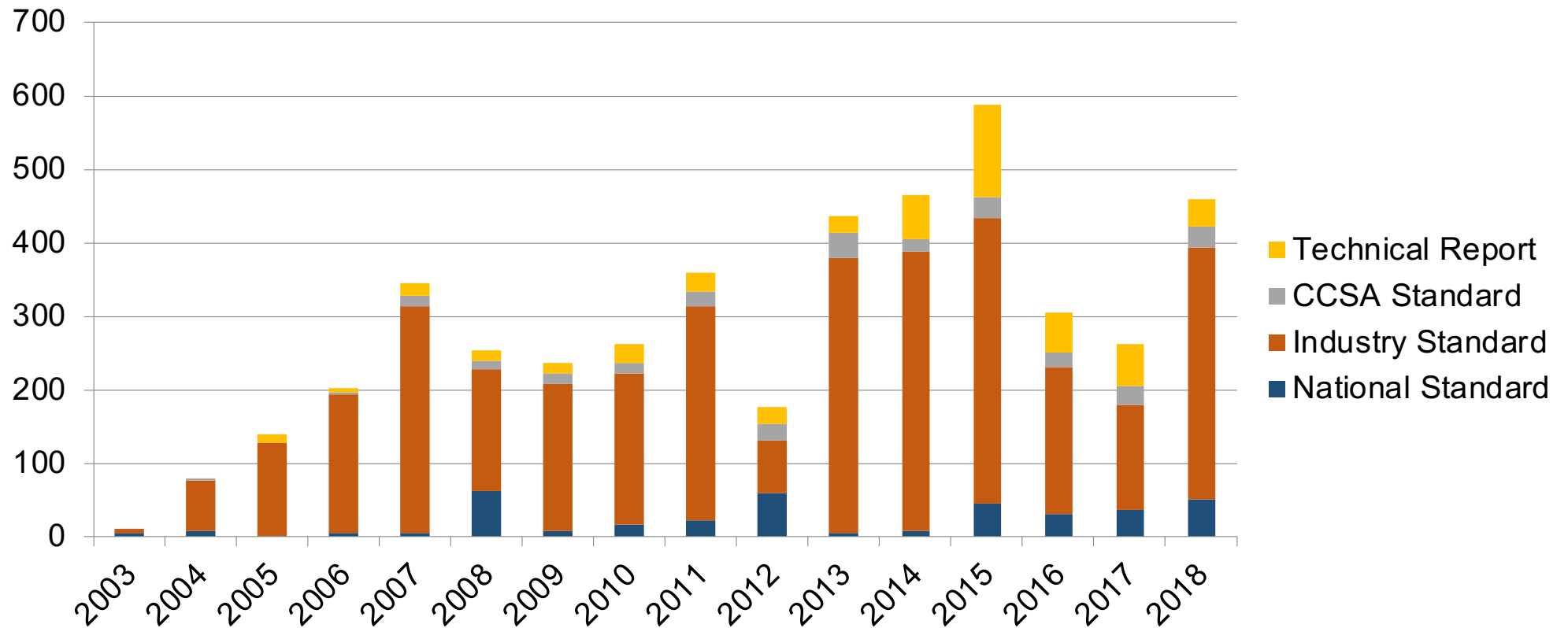
Montreux, 26th March, 2019



Content

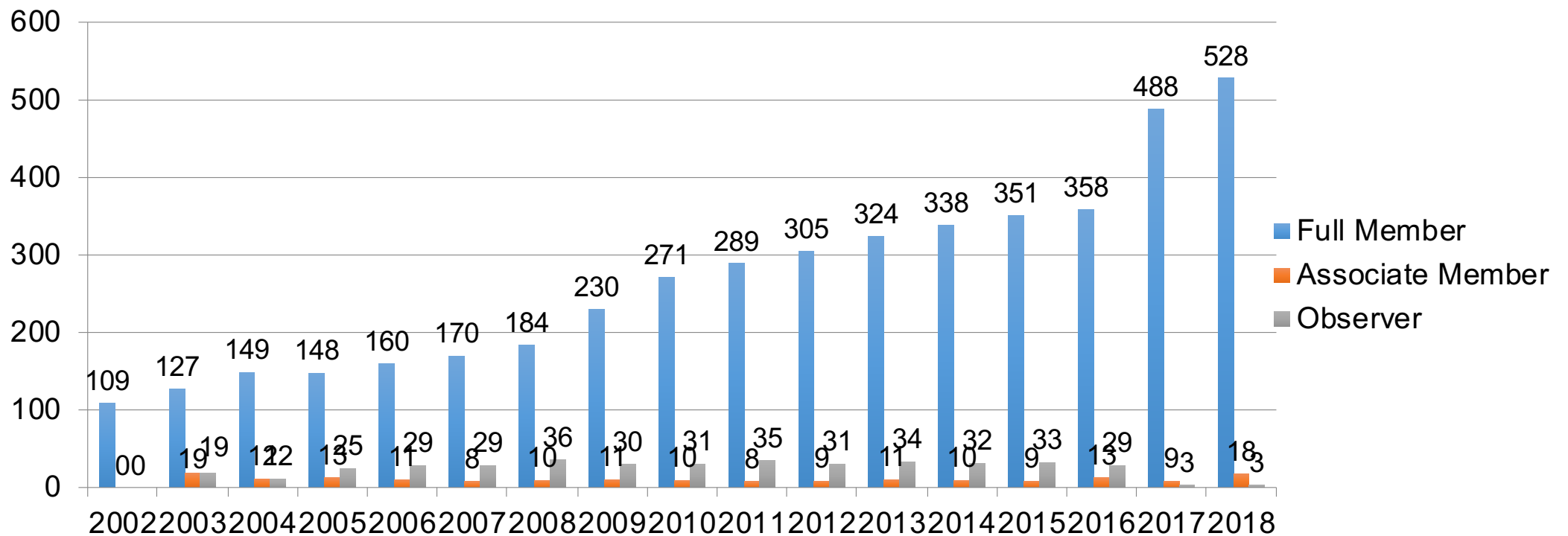
- CCSA updates
- Strategic Thinking
- Strategic Actions
- Hot standardization topics

CCSA Updates – Standards Output

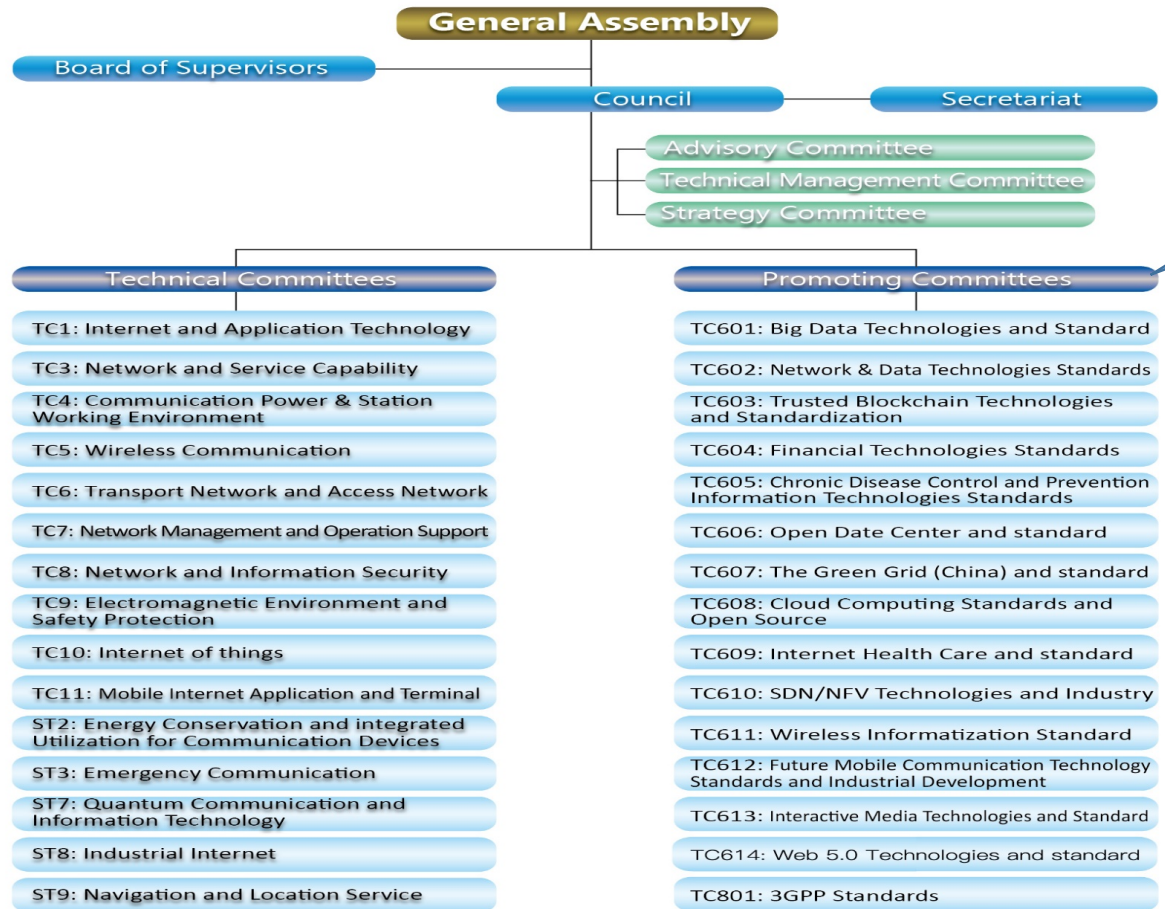


CCSA Updates - Members

Chart of membership (2002 – 2018)



CCSA Updates - Structure



NEW





Strategic thinking: the AIoT era is at hand

- Large-scale IoT application or digital transformation in vertical industries is the biggest new business opportunities for ICT industry.
- The development and promotion of IoT-related standards, esp. the application-layer standards, poses great challenges to us, so we should think out countermeasures to facilitate such work.
- The AI technology with deep learning ability empowered by advanced ICT technology will once again rapidly change our business and life;
 - The industry has invested heavily and has achieved remarkable results.
 - It's really unknown where such changes will lead us to.
- What are the requirements and challenges for standardization in AI technology itself and AI-enabled intelligent system?



Strategic Actions

■ Inclusive mechanism

- CCSA has established technical standard promotion committees. They are set up by a number of like-minded (often cross-industry) enterprises and institutions and can have their own organizational systems and mechanisms to develop deliveries. The brand form of such deliveries is XXXX of CCSA-SWG.name.
- Theoretically, within CCSA there can be different technical standard promotion committees who develop identical or similar standard deliveries with CCSA prefix and different SWG suffixes. Such deliveries will be adopted by various companies (vertical industries) .
- These technical standard promotion committees are similar to (IoT-related) industry alliances and fora.
- The fundamental reason for this mechanism is that many of the application-oriented standards needed by the digital transformation of various industries might be developed by the alliances established by cross-industry leading companies based on their practice in major engineering projects. If traditional SDOs want to maintain their value in such important standardization activities, they should consider inclusive mechanism.

■ The standardization mechanism of application-oriented standards related to industry transformation

- It is beneficial that leading companies in application industries develop application-oriented standards not only to the effectiveness but also to the end-user promotion and application of such standards.
- Then it's necessary to consider revising or including the development mechanisms of such standards.



Strategic Actions

■ Survey: The fundamental goal is to explore what job we should focus on with the rapid and large-scale development of AIoT business application.

- The status quo of IoT digital transformation
- The factors influencing the rapid development of AIoT business applications
- The standards of high value in the AIoT era. The most appropriate mechanism of developing such standards, and the best ways of promoting them
- Subject of this survey: companies related to AIoT or digital transformation of vertical industries
- Survey questions: business priorities of the vertical industries, the bottlenecks and challenges in digital transformation, the standard requirements and preferences, etc.

■ To strengthen communication with vertical industries, esp. with IoT platform providers

Work program underway towards industry digitalization along with **key industry stakeholders**

An I.D.T. Eco. Survey

1. Outpost fight: Significant gain seen with existing technology and insignificant investment
2. Key I.D.T. Industry stakeholders
 - Leading vertical & I.D. Platform Co.
 - Leading ICT & I. D. Platform Co.
 - Leading internet & I. D. Platform Co.
 - I.D.T. Focused alliances
3. Key elements for success and / or pain points for I.D.T business
 - large and good profit opportunities
 - practical enabling technologies
 - specifications and standards and architectural design (homemade or adopted)
 - Ownership and use of relevant data
4. Possible relationship between "Common Standards and Architecture" and Commercial Engineering designers
 - 1. Adopted
 - 2. Use of it to make their own.
 - 3. Not use
5. Question
 - Is there anything we should do to maximize the value of "common standards and architectures" for commercial engineering design?

CCSA's Work Program

- The ultimate goal: The fastest success of I.D.T. business on a large scale
- Focused on helping solve key shortcomings or pain points
 - Inclusive system, absorb some I.D.T. focused industrial alliance as the special technology and standards promotion committees that enjoy a certain degree of autonomy within the CCSA.
- Working procedures for customized standards for vertical industries
- Participate in the production of public architectures and standards:
 - National level
 - Global level ,
- Support the promotion of important enabling technologies: i.e. Argile, time-sensitive, deterministic network
- Promotes communication and cooperation among I.D.T. Eco Stakeholder



Hot standardization topics – 5G

■ 5G industry standards

- 5G Technology R&D Trial (2016-2018) is a link to push forward the maturity of 5G industrial chain
- The 5G technical and test specifications formed the basis for industry standards
- Have 5G Vertical Industries Requirement Study and Call for 5G Applications: “Bloom Cup” 5G Application Project Contest

■ LTE-V2X

- LTE-V2X series standards including Network layer and Application layer
- Joint standards between CCSA ,ITSC and NTCAS(CATARC)
- Good collaboration in vehicle, ICT and transportation fields



Hot standardization topics - IoT

■ IoT

- Industrial Internet
 - Edge Computing-Consortium (Testbed)
- Internet of vehicles
 - Guidelines on China's IoV standard system published
- Home appliance
 - Standard setting mechanism led by vertical industry (Home appliance companies)
 - Fast distribution network, and the interconnection R/D between the back-end cloud systems of many manufacturers
 - **An End-user driven mode compared with Supplier (SDO) driven**



Hot standardization topics - AI

■ AI

- The values of standardization in the AI field
- Interoperability
 - The dialogue language between AI systems, which is the basis for mutual understanding of systems
 - Service Interoperability
 - Knowledge Interoperability
 - Data Interoperability
 - UI Interoperability
 - Device Interoperability (Internet of Things)
- Increase of application flexibility
- To accelerate the commercialization and industrialization of AI



Hot standardization topics

- Information security
- Quantum-ST7: The possible values of standardization
 - Clarification of new concept
 - To ensure QKD inter-operability
 - Security certification
 - To increase application flexibility
 - To accelerate the deployment of QKD technology
- Future Network: Network 5.0 Industry and Technology Innovation Alliance
 - To meet the network performance requirements of full application in the AIoT era
 - To consider better network architecture, network protocols and introduction of AI technology
 - In progress in ITU-T, ETSI, IETF and IEEE



Thank you for your attention!



Section title