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Preface

This document is the first deliverable of CHOICE project task 2.2 Bringing together European and Chinese Industrial Associations. This task will, at the end of the second year of the project, have delivered a final version of an online database of relevant Chinese and European ICT industrial associations.

This document is a report on the progress towards an online database of relevant Chinese and European ICT industrial associations. It maps Chinese industrial associations to European industrial associations in ICT. It does this by providing details of the Chinese industrial associations and other relevant bodies that are a Chinese priority for collaboration with their EU counterparts related to EU-China collaborative ICT R&D&I. Other such Chinese bodies that are not a Chinese priority for such collaboration that map to European industrial associations in ICT are then summarised so that a complete mapping of Chinese industrial associations and related bodies to European industrial associations in ICT can be made. Mappings are made based on the best matches in terms of the subject matter covered by the associations; in each case the best match based on this criterion is identified and highlighted by being given in bold type. If a mapped Chinese association is not a priority for collaboration it is identified by being given in italics. The Chinese selection of Chinese bodies that are a priority for collaboration with EU counterparts reflects the relevant policy guidance provided on behalf of the Chinese government on how the aims of the "Twelfth Five-Year" National Strategic Emerging Industry Development Plan are to be achieved. An overview of the policy guidance relevant to ICT R&D&I is given in section one of CHOICE deliverable D2.4: Handbook for China ICT Industrial Support Services. Based on this mapping opportunities to foster interaction between the associations in China and Europe are identified. A DVD of the modest database that exists on the basis of the mapping presented in this report accompanies the report.

This report is structured in four parts. In the first part details are provided of the Chinese industrial associations and other relevant bodies in ICT that are a Chinese priority for collaboration with their EU counterparts related to EU-China collaborative ICT R&D&I. This part of the report was developed by Torch High Technology Industry Development Center, The Ministry of Science and Technology, China. These bodies are considered by TORCH to be in a position to promote excellent Chinese collaborative ICT R&D&I with the EU. The second part of the report summarises other such Chinese bodies that are not a Chinese



priority for such collaboration. This part of the report was developed by Brunel University London. The third part of the report summarises European industrial associations and other relevant European bodies in ICT so that mappings of European Public-Private Partnerships, Technology Platforms, industrial associations and related bodies to their Chinese counterparts in ICT can be made in part 4 of this report. Conclusions drawn from the mapping regarding opportunities to foster collaboration ICT R&D&I are then presented which include actions on the project, the final section of the report is a status report on these actions.



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Part 1 Chinese priority associations for EU-China collaboration on ICT R&D&I

1. China Semiconductor Industry Association

(CSIA, 中国半导体行业协会)

• Website: http://www.csia.net.cn/

• Contact info.

The association has 5 branches:

IC Branch

Contact: Shula RUAN Tel: 86-510-81190090 Fax: 86-510-81190107

Address: Room 109, 1st building of Wuxi National Industrial Design Park, 599 West

Construction Road, Wuxi, Jiangsu Province

Zip code: 214020

Discrete Semiconductor Devices Branch

Contact: Yong LI Tel: 86-311-87091519 Fax: 86-311-87091477

Address: 46th branch of 179 mailbox, Shijiazhuang, Hebei Province

Zip code: 050002 Email: <u>csiadd@126.com</u>

Semiconductor Packaging Branch

Contact: Geying LI Tel: 86-10-82356605 Fax: 86-10-82356605

Address: 411 Room of Liangzixinzuo Building, Zhichun Road, Haidian District, Beijing

Zip code: 100083

Email: china.ep@163.com

IC Design Branch

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Contact: Yingming ZHANG Tel: 86-21-6160 9878—240

Fax: 86-21-6160 9876

Address: 2nd floor, 01st zone, 1388th Zhangjiangjidiangang Zhangdong Road, Pudong New

Area, Shanghai Zip code: 201203

Email: zym@csia-iccad.net.cn

Semiconductor Industry Support Branch

Contact: Wenfang XIN Tel: 86-10-82087088-647 Fax: 86-10-62355381

Address: 2nd Xinjiekouwai Street, Beijing

Zip code: 100088

Email: xinwf@gritek.com

• Key responsibilities

The association was founded on 17th Nov. 1990 and it is a voluntary, nationwide, and non-profit social organization, consisting of companies and experts engaged in integrated circuits, discrete semiconductor production, design, research, development, operation, application, and teaching. The association carries out activities regarding China's Semiconductor Industry while strictly complying with the country's constitution, laws, regulations and policies; it provides member services, industry services and government services; it plays the role of a bridge and link between the government and its members; it maintains the legitimate interests of its members and the industry and promotes the development of the semiconductor industry.

Key responsibilities:

- 1) Implement the relevant government policies and regulations, propose economic advice and policy recommendations for the development of technology and equipment in the industry to the government;
- 2) Information consulting work: Investigate, research, and forecast the industry and market; according to authorization, generate industry statistics, provide timely industry status investigation reports, identify market trends, make economic forecasts regarding the industry to its members and the government, provide policy-orientation, information-orientation, and market-orientation.



- 3) Extensively carry out activities of economic and technological exchanges and academic exchanges. Commissioned by the government or based on market and industry development needs, organize seminars and exhibitions for domestic and overseas new products and new technology in the industry, so that enterprises can explore domestic and international markets.
- 4) Carry out international communication and cooperation. Develop connections with foreign organizations, promote industrial development and internationalization. As a member of the World Semiconductor Council, organize the members to participate in World Semiconductor Council activities to promote China and the global semiconductor industry to develop mutually beneficial and win-win partnerships.
- 5) Assist the Government in making (revising) industry standards, national standards and recommendations. Promote the implementation of the standards.

• Superior of CSIA

Ministry of Industry and Information Technology

• Leadership of CSIA

Honorary chairman: Peiyan ZENG, Weizhi QU, Zhaoji LI, Zhongwen GOU, Zhongyu YU

• Member status

520 members in total, some of the member companies are listed below:

- ♦ Ningbo Hualong Electronics CO., LTD http://www.nbhldz.com
- ♦ Beijing Sevenstar Electronics CO., LTD http://www.sevenstar.com.cn
- ♦ General Research Institute for Nonferrous Metals http://www.grinm.com
- ♦ Grinm Advanced Materials CO., LTD http://www.gritek.com
- ♦ Beijing Institute of Chemical Reagents http://www.bicr.com
- ♦ Beijing Jinglianfa Digital Control Technology CO., LTD http://www.jinglianfa.com
- ♦ Tianjin Jingling Microelectronics Material CO., LTD http://www.jingling.com.cn
- ♦ Hangzhou Haina Semiconductor CO., LTD http://www.hainasemi.cn



2. China Robot Industry Alliance

(CRIA, 中国机器人产业联盟)

• Website: http://cria.mei.net.cn/

Contact info.

Tel & Fax: 86-10-68594830

Address: 46th Sanlihe Road, Xicheng Dist. Beijing, 100823

Email: CRIA@mei.net.cn

• Key responsibilities

CRIA is a non-profit organization composed voluntarily of enterprises, manufacturers, universities, research institutes, regional or local robotic associations, related organizations as well as government-sponsored organizations in the fields of R&D, manufacturing, application and services of the robot industry in China. Founded on April 21, 2013, it has 104 members so far. The Secretariat of CRIA is located at CMIF which is also the location of the CRIA's headquarters.

CRIA's aim is by following the nation's industry policies and market demands to set up a cooperation platform for the industry, colleges and universities, research institutes and users in order to strengthen the members' abilities in R&D, manufacturing, integration, applications and customers services, to extend the application of robots in various fields and to improve the robot industry chain in China, so as to promote the health development strength and competitiveness of the domestic robot industry.

CRIA's major mission is to implement the state's industrial policies and measures, to strengthen exchanges and cooperation regarding technology, promote the market and intellectual property rights among members and international cooperation, to push forward collaboration between the industry, colleges and universities, research institutes and users, to be a vehicle for self-discipline on the part of the robot industry and avoid redundant projects, to provide a platform for information exchange, application promotion, education and training, to organize exhibitions and conferences, in order to facility the efficient use of resources accelerate cooperation between the robot industry and other industries and popularize the application of the robot technology and products.



• Superior of CRIA

National Development and Reform Commission

Ministry of Industry and Information Technology

Ministry of Science and Technology

• Leadership of CRIA

Executive Chairman and Secretary General: Xiaogang SONG

Deputy Secretary General: Xinmin ZHAO, Zhiju YAO

Member status

104 in total, some of the member companies are listed below:

- ♦ Beijing Ziguang Intelligent Robot System CO., LTD http://www.robotunis.com/
- ♦ Dalian Jialin Machine Manufacture CO., LTD http://www.jiatian.net.cn/
- ♦ Beijing Bochuangxingsheng Technology CO., LTD http://www.up-tech.com.cn/
- ♦ Guangdong Welling Motor Manufacture CO., LTD http://www.welling.com.cn/s/index.php
- ♦ Qingdao Chuangxiang Robot Manufature CO., LTD http://www.incrobot.com/



3. China Software Industry Association

(CSIA, 中国软件行业协会)

• Website: http://www.csia.org.cn/htm/index.html

• Contact info.

Tel: 86-10-51527160 Fax: 86-10-62186579

Address: 55th China Software Building, Xueyuan Road South, Haidian Dist., Beijing, 100086

• Key responsibilities

- 1) Learn, promote and implement the national policies that encourage the software industry;
- 2) Organize China International Software Expo;
- 3) Carry out "Software Product Authentication" and "Software Enterprise Authentication";
- 4) Carry out credit rating work for China software service companies;
- 5) Make the annual software industry statistical yearbook;
- 6) Carry out credit rating of China software and service companies;
- 7) Recommend excellent software products, cultivate excellent brands of China software;
- 8) Organize China software industry development & business innovation summit;
- 9) Organize China industry software development summit;
- 10) Prepare and publish "China Software Industry Development Report";
- 11) Prepare and publish "China Software Enterprise Encyclopedia";
- 12) Construct the official website of CSIA: the window of China software;
- 13) Edit and publish "Software Industry News";
- 14) Strengthen international communication and cooperation, promote the internationalization of the China Software industry;
- 15) Undertake tasks entrusted by the government, participate in planning software industry development;
- 16) Organize various seminars, training activities, serve enterprises and the software industry;
- 17) Establish industry standards, promote genuine software, create a fair competitive environment for industry development;
- 18) Act as a nongovernmental coordinating institution for software exports, promote software exports;
- 19) Organize excellent software talent contests;
- 20) Strengthen organization construction, adapt to situation development, promoting all-round service.



• Superior of CSIA

Ministry of Industry and Information Technology

Leadership of CSIA

Chairman: Xiaofan ZHAO

Secretary General: Duying XIE

• Member status

The number of member companies is over 1000. The members consist of the majority of software companies, and most of the top 100 enterprises of the China software and information service industry. The membership also includes research institutions, universities, etc., a very wide range.



4. Shanghai Integrated Circuit Industry Association

(SICA, 上海市集成电路行业协会)

• Website: http://www.sica.org.cn/

• Contact info.

Tel: 86-21-50805257 Fax: 86-21-50805259

Address: Room 209 No.500 Bibo Road, Pudong New Area Shanghai PRC., 201203

E-mail: contact@sica.org.cn

• Key responsibilities

The Shanghai Integrated Circuit Industry Association (SICA) is a nongovernmental organization composed of 5 committees on IC design, manufacturing, testing & packaging, smart cards, materials & equipment, and other related enterprises of this industry. SICA was founded on April 19th 2001.

SICA's tenet: under the laws and regulations of China, work as the bridge between the government and enterprises, carrying out the function of an "industrial service, promoting industrial self-discipline, industrial representation, and industrial correspondence"; supporting and assisting the healthy development of the companies of the IC industry, dedicating itself to the development and prosperity of the IC industry in Shanghai.

SICA's operation: researching and analysing the industry; evaluating and testing IC products; providing IC technical training; publishing; attracting investment by holding exhibitions or conferences; promoting IC products; media-consulting; promoting technical cooperation and communicating within China and abroad; implementing functions authorized by the government.

• Superior of SICA

Shanghai Economic and Information Technology Commission

Shanghai Administration of Societies



• Leadership of SICA

President: Wenbiao FU

Secretary general: Shoulei JIANG

• Member status

417 in total, some of member companies are listed below:

- ◆ Shanghai Huahong (Group) Co.Ltd. (上海华虹(集团) 有限公司)
- ♦ Shanghai Huahong NEC Electronics Company, LTD. (上海华虹NEC电子有限公司)
- ◆ ADVANCED SEMICONDUCTOR MANUFACTURING CORPORATION OF SHANGHAI(上海先进半导体制造股份有限公司)
- ◆ SHANGHAI GRACE SEMICONDUCTOR MANUFACTURING CORP. (上海宏力半导体制造有限公司)
- ♦ Shanghai SIM-BCD Semiconductor Manufacturing Co., LTD. (上海新进半导体制造有限公司)
- ♦ Semiconductor Manufacturing International Corporation (中芯国际集成电路制造(上海)有限公司)
- ◆ SHOUGANG NEC ELECTRONICS CO.,LTD. (首钢日电电子有限公司)
- ◆ TSMC (China) COMPANY LIMITED (台积电(中国)有限公司)
- ♦ HeJian Technology Co., Ltd (和舰科技(苏州)有限公司)
- ♦ Ningbo BYD Semiconductor Co., Ltd (宁波比亚迪半导体有限公司)



5. China Communications Standards Association

(CCSA, 中国通信标准化协会)

• Website: http://www.ccsa.org.cn/

Contact info.

Tel: 86-10-62302730, 86-10-62304228

Fax: 86-10-62301849

Address: 52th Huayuan North Road, Haidian Dist., Beijing, 100191

• Key responsibilities

China Communications Standards Association (hereafter referred to as CCSA) is a non-profit legal entity organization established by enterprises and institutes in China for carrying out standardisation activities in the field of Information and Communications Technology (ICT) across China.

The membership of CCSA is open to corporate bodies only, including R&D institutes, design institutes, manufacturers, operators, universities and other societies.

CCSA is committed to making a contribution to the development of ICT industry in China by establishing an enterprise-based and market-oriented working system that incorporates the industry, universities and R&D institutes and conducts communications standardisation activities following the principles of "Openness, Fairness, Justness and Consensus".

CCSA is committed to conducting standardisation activities in the field of ICT under the guidance of the authorities, i.e. the Ministry of Industry and Information Technology, and other authorities concerned. Its main activities are:

- 1) To promulgate the state laws, regulations and policies on standardisation; to deliver opinions and requests of its members to the relevant authorities in order to facilitate communication between its members and the authorities;
- 2) To conduct studies and surveys on the standardisation system, to propose R&D projects on communications standardisation; to organize its members to conduct, standards



drafting, comments collecting, coordination, reviewing, standards compliance testing, and interoperability testing;

- 3) To promote the implementation of communications standards through activities such as the promulgation of communications standards, consultation, services and training;
- 4) To organize domestic and international exchanges and cooperation in ICT and standardisation; to collect and analyse information relating to domestic and international communications standards to support R&D activities in communications standards;
- 5) To undertake work related to standardisation commissioned by the authorities, members of CCSA or other organizations.

• Superior of CCSA

Ministry of Industry and Information Technology

Leadership of CCSA

Honorary Chairman: Gaofeng ZHU, Zhiyuan SONG

Chairman: Hequan WU

• Member status

The CCSA has 302 members in total, some of its member companies are listed below:

- ♦ 1. Shenzhen Gold Power Tech Co.,Ltd
- ♦ 2. ZTE Corporation
- ♦ 3. Zhuhai hansen technology Co., ltd
- ♦ 4. Zhongtian Broadband Technology Co.Ltd.
- ♦ 5. ZHEJIANG ZHAOLONG CABLE CO.,LTD
- ♦ 6. ZHEJIANG TENGEN ELECTRICS CO.,LTD.
- ♦ 7. ZheJiang FuChunJiang Communication Group Co.,Ltd.
- ♦ 8. Zhejiang Ebang Communication Co.,LTD
- ♦ 9. ZHEJIANG 8TELECOM CO.,LTD



6. The National Remote Sensing Center of China

(NRSCC, 国家遥感中心)

• Website: http://www.nrscc.gov.cn/nrscc/en/organization/

• Contact info.

Tel: 86-10-58881180, 86-10-58881183

Fax: 86-10-58881179

Address: No. 8A, Liulinguan Nanli, Haidian Dist., Beijing, 100036

Email: public@nrscc.gov.cn

• Key responsibilities

With support from relevant government departments, the NRSCC has made great progress in promoting the development of national earth observation and navigation technologies, as well as their applications in social development and economic construction. It has greatly promoted the development of remote sensing, geographic information systems and navigation and positioning technologies and their key applications.

NRSCC devotes itself to strategic planning in the domains of earth observation and navigation and takes responsibility for formulating annual plans, annual inspections, midterm inspections, checking before acceptance and summarising the achievements of R&D projects under its management. In the process, the NRSCC has strengthened intra-field and inter-fields integration of relevant achievements, and promotion of their applications.

Since the launching of the negotiations on China-EU cooperation in the Galileo Project in 2002, the NRSCC has been the agency responsible for China's cooperation with European counterparts, actively communicating with and coordinating relevant departments of both the European Union and China, and implemented relevant projects with high standards. The NRSCC implemented market surveys, training and personnel exchange activities on the platform of the Joint Training Center of China-EU Navigation Technology, which provides a good technology foundation and harmonious international environment for development of the satellite navigation technologies of China.

According to the instruction from previous Premier Li Peng in 1996, the NRSCC has represented the State Science and Technology Commission and its after-body the Ministry of



Science and Technology to report remote sensing information on disasters, agriculture, ecology and the environment directly to the General Office of the State Council (GOSC) for 15 years, and been highly appreciated by national leaders. The NRSCC organized remote sensing dynamic monitoring of the 1998 huge flood disaster and the 2008 devastating earthquake in Wenchuan, Sichuan Province.

Since 1996, the NRSCC has carried out assessment of the space information system software of China, according to the accreditation request of China National Accreditation Service for Conformity Assessment, and played a key role in development of China's space information system software industry.

The NRSCC has built broad and close international cooperation relations with over 20 countries and international organizations. China is one of the co-chairs of GEO and the NRSCC takes charge of the secretariat affairs of China for GEO. The NRSCC was the Chinese implementation body of the MOST-European Space Agency Dragon Project and achieved significant international impact through its implementation. The NRSCC is also an official member of CEOS and the China contact point of UNESCAP. Through cooperation and exchange in science and technology, the NRSCC has contributed a lot to the development of earth observation and navigation technology in China.

Superior of NRSCC

Ministry of Science and Technology

Leadership of NRSCC

Director-General: Xiaohan LIAO Deputy Director-General: Guifei JING



7. China Mobile Communications Association

(CMCA, 中国移动通信联合会)

• Website: http://www.cmca.org.cn/company.asp?action=5

• Contact info.

Tel: 86-10-88452630

Fax: 86-10-88452655

Address: 16FA, East Area of Shijijinyuan Restaurant, Banjing Road, Haidian Dist., Beijing,

100097

Email: dqp@cmca.org.cn

• Key responsibilities

CMCA was founded on 16th Sep. 2000, its key responsibilities include:

- 1) Implement national industrial policy, research the relationship between the industry and the government's macro control of it, coordinate the relationship between the industry at home and abroad and the domestic market, and promote the competitiveness of the domestic industry groups;
- 2) Promote the common development of the manufacturing and the operator industry;
- 3) Strengthen connections between enterprises, promote communication and cooperation between enterprises, promote various cooperation modes between enterprises, promote information sharing and mutual benefit among peers;
- 4) Build a bridge for communication with international bodies, promote the import of foreign talent and advanced technology, improve the entire technology level and competitiveness of the domestic mobile communication business;
- 5) Promote the perfection of the service provided by the industry, organise learning of international business operations, promote the improvement of business management and



the service level, and increases in business operation efficiency and the business strength. Cultivate management and technical talent for business at home and abroad.

Superior of CMCA

Ministry of Industry and Information Technology

• Leadership of CMCA

Honorary Chairman: Ji LIU

Chairman: Xinli ZHENG

• Member status

CMCA members include: telecom operators such as *China Mobile Communications Corporation*, *China United Telecommunications Corporation*, and *China Telecom Corporation*; national mobile communication backbone manufacturers, operation companies, Chinese mobile communication companies well-known overseas; enterprises and people who care about and promote the development of the China mobile information industry including the government policy research department, finance community, technology community, media community, consumer groups and individuals.



8. China Information Technology Security Evaluation Center

(CNITSEC, 中国信息安全测评中心)

• Website: http://www.itsec.gov.cn/export/sites/itsec/english/

• Contact info.

Tel: 86-10-82341188, 86-10-82341118

Fax: 86-10-82341100

Address: 1st building, 8th Shangdi West Road, Haidian Dist., Beijing, 100085

Key responsibilities

The China Information Technology Security Evaluation Center is a leading Information Security Evaluation authority approved by Chinese government with the main function of providing IT security evaluation services. Its responsibilities are as following:

- ◆ Conducts vulnerability analysis
- ♦ Enables evaluation of security risks
- Provides IT security evaluation and testing services
- Provides evaluation services for information security professionals
- ◆ Delivers IT security consulting, engineering supervision and R&D services

With the support of national dedicated funds, as a key infrastructure of the National Information Assurance framework, CNITSEC has acquired and mastered edge testing technologies and equipment of vulnerability analysis and evaluation. It is well-equipped with a Vulnerability Foundation Research Lab, Application Software Lab, Products Security Evaluation Lab, System Vulnerability Lab and Evaluation Tools Lab that ensure CNITSEC's quality evaluation services. Besides, CNITSEC has built a group of professionals and seasoned technical experts specialized in risk evaluation of critical infrastructure systems for party and government organizations.

Since it was founded in 1997, CNITSEC began to grow almost immediately. In accordance with the laws and regulations of People's Republic of China, CNITSEC meets its commitment to providing security assurance and improving infrastructure systems reliability.



Up to now it has successfully completed several tasks and projects such as National Science & Technology Research, China's National Science Fund, 863 973 Plans, many of which have been prized by the competent authorities. The Center has also greatly promoted the shaping and development of China's national security standards.



9. China Optics and Optoelectronics Manufacturers' Association

(COEMA, 中国光学光电子行业协会)

• Website: http://www.coema.org.cn/English/

• Contact info.

Tel: 86-10-84321499

Fax: 86-10-84321499

Address: No.11 Research Institute, No.4 Jiuxiangiao Road, P.O. box 8511 Beijing China,

100015

Email: coema@coema.org.cn

• Key responsibilities

China Optics & Optoelectronics Manufactures Association (COEMA) was established in early 1987 and approved by the State Council, it is a social organization voluntarily sponsored by enterprises, institutions engaging in optics and optoelectronic science research, manufacturing, teaching and studying throughout the country, it was a civil organization approved by Civil Administration of China. COEMA plays an advisory and assistance role for government administration of the optics and optoelectronics industries.

COEMA is administered and guided in business by Ministry of Industry and Information Technology, and supervised by the Civil Administration of China. Its key responsibilities are listed below:

- 1) To assist government to promote economic system reform of the China Optics & Optoelectronics Manufacturers (COEM), help council members transfer business mechanisms, and adapt to the development of the socialist market.
- 2) To carry forward investigation of COEM and undertake marketing research, provide the



government with proposals for the developing planning of COEM; carry out market forecasting providing information to government and council members.

- 3) To organize international and domestic exhibitions, seminars, academic exchanges, and conferences; provide dedicated new products and technology promotion and application; publish periodicals and newspapers, record industry contents in various albums; enlist council members to temper the domestic market, organize international exchanges, carry forward international cooperation, push COEM development and progress.
- 4) To strengthen the vigour and vitality of enterprises, expand the market, play an advisory and assistance role to government administration of COEM, promote the technology and industry development of China Optics & Optoelectronics Manufacturers.

• Superior of COEMA

Ministry of Industry and Information Technology

• Leadership of COEMA

General Secretary: Mrs. Lin Wang, Email: (wl@coema.org.cn)

Deputy Secretary: Mr. Hongtao Suo, Email: (suohongtao@coema.org.cn)

• Member status

There are 712 members of COEMA, divided into seven branches in accordance with the following fields of specialisation: lasers, infrared technology, optical elements & optical instruments, optoelectronic devices, optoelectronic diode display screens, liquid crystal and laser holography branch. Its member institutions include not only high-tech enterprises such as BOE Technology Group Co., Ltd., SVA Electron Co., Ltd., Shenzhen Tianma Microelectronics Co., Ltd., Shanghai Nicera Sensor Co., Ltd., China Daheng Laser Engineering CO., Ltd. but also nationally important science research institutes, such as North China Research Institute of Electro-Optics, No.33 Institute, Beijing Tsinghua National Liquid Crystal Technology Engineering Research Center, No.8358 Institute of China Aviation Industry General Corporation, Fujian Institute of Research on The Structure of Matter, CAS etc.



10. China Electronics Standardisation Association

(CESA, 中国电子工业标准化技术协会)

• Website: http://www.cesa.cn/default.aspx

• Contact info.

Tel: 86-10-68207848/7847/0655

Address: 27th Wanshou Road, Haidian Dist., Beijing, 100036

• Key responsibilities

- 1) Extensively keep in touch with the national electronic information industry standardisation bodies and standardisation workers, report the desires and requirements of enterprises to the government, meanwhile deliver the comments of the government to enterprises, assist the government in well conducting electronic information industry standardisation work;
- 2) Research and investigate common issues in electronic information industry standardisation, promote standardisation achievements, organize the academic and technical exchanges in electronic information industry standardisation;
- 3) Research and investigate standardisation related work, so as to provide suggestions to the government on standardisation guidelines and policy making;
- 4) Entrusted by the government to coordinate the resolution of significant technical problems related to electronic information industry standardisation, or provide related suggestions;
- 5) Explore the standardisation work in the information technology area;
- 6) Publicise national standardisation principles, policies and laws, popularize standardisation knowledge, train standardisation personnel, co-organize the publicity and implementation work of significant standardisation projects;
- 7) Develop information resources for electronic industry standardisation, edit and publish standardisation books, audio-visual materials, organize standardisation technical consulting services;



- 8) Reflect the views and recommendations from standardisation workers, maintain the legitimate interests of standardisation workers; organize various activities for members, recommend or reward excellent academic papers and scientific works on standardisation, organize recognition and reward for the advanced units and individuals involved in the standardisation work of the association;
- 9) Launch international standardisation academic exchange activities in the field of information technology.

• Superior of CESA

Ministry of Industry and Information Technology

• Leadership of CESA

Honorary Chairman: Hongkun LIU

Chairman: Yan HU

Member status

CESA has 240 member organisations in total, some of member companies are listed below:

- ♦ International Business Machines Corporation (China) Investment Co., Ltd.
- → The soldiers Communication Technology Co., Ltd.
- ♦ Nokia (China) Investment Co., Ltd.
- *♦ Hisense Group Co., Ltd.*
- ♦ Haier Group's R & D center
- ♦ Sony (China) Co., Ltd.
- *♦ Jiangxi KingGrid Technology Co., Ltd.*
- *♦ Panasonic (China) Co., Ltd.*
- ♦ Shenzhen ANSIN Network Systems Limited
- *♦ China Electronic Chamber of Commerce*



11. Beijing Electronic Commerce Association

(BECA, 北京电子商务协会)

• Website: http://www.beca.org.cn/

• Contact info.

Tel: 010-63435415 Fax: 010-51814650

Add: Room 312,C1 Lianhuachi Dong Road, Xicheng Dist.Beijing, 100045

E-mail: beca9999@gmail.com

Key responsibilities

The Beijing Electronic Commerce Association (BECA) was founded in 2002. The scope of the Beijing Electronic Commerce Association includes R&D on the direction of the ecommerce industry in Beijing and making policy, assisting the Government in formulating industry standards, and planning Beijing's e-commerce development.

It is active in the field of electronic commerce providing information, advice, training, and legal services. It participates in exhibition organization to help e-commerce enterprises to develop domestic and international markets.

It engages in horizontal exchanges with domestic and foreign enterprises to implement community organizations and economic and technical cooperation.

BECA is approved and registered by the Beijing Municipal Caste authority department. BECA is incorporated as a non-profit institution.

Its key responsibilities are:

♦ Investigation

BECA studies in Beijing electronic commerce industry developments, programming correlative policy, technology, and industrial market trends. BECA helps government frame



and revise relevant layout of Beijing municipal electronic commerce developments and industry standards.

♦ Serving

BECA actively promotes information, consultation, professional training, and legal services in the field of electronic commerce. BECA organizes membership enterprises to participate in exhibitions, and helps enterprises develop business in China and abroad.

♦ Self-discipline

BECA sets up and improves the industrial regulation & rules of Beijing municipal electronic commerce, to guide the development of electronic business enterprises development.

♦ Exchange

BECA engages in transverse communication with relevant institutions and enterprises in China and abroad aimed at improving economic and technical cooperation.

• Superior of BECA

Beijing Municipal Commission of Commerce

Leadership of BECA

Honorary Chairman: Yan LU Chairman: Tongxin DING

Member status

BECA has 94 member organisations in total, some of its member companies are listed below:

- ♦ Beijing Express Channel Food Logistics Co., Ltd
- ♦ Beijing Changping New Century Shopping Mall
- ♦ Beijing Xiaomi Technology Co., Ltd
- ♦ Beijing Zhongwangshenzhou Technology Co., Ltd
- ♦ Beijing Co-Mall Software Technology Co., Ltd
- ♦ Beijing SinoTsing Information Technology Academy



12. China Computer Industry Association

(CCIA, 中国计算机行业协会)

• Website: http://www.chinaccia.org.cn/index.htm

• Contact info.

Tel: 86-10-57757112, 86-10-57757149

Fax: 86-10-68865288

Address: Room 211, No. 21A, Shijingshan Road, Shijingshan Dist., Beijing, 100049

Email: ccia@chinaccia.net.cn

• Key responsibilities

The China Computer Industry Association (CCIA) was established on April 17, 1987 in Beijing and registered with the Ministry of Domestic Affairs in April, 1991 as a commonalty.

China Computer Industry Association is a social organization organized and participated in by enterprises and institutions which are engaged in scientific research, development, production, and application of computers and related products. Now, there are more than 190 registered members in the association. It also has five regional social organization members in Shenzhen, Shanghai, Jiangsu, Zhejiang, and Henan. Registered members of the five organisations total more than 600.

The principle and purpose of the China Computer Industry Association is: Observing the Constitution, Laws, regulations, and policies of the state, respecting social morality, the China Computer Industry Association serves its members and the government; safeguards the lawful rights and interests of its members; and carries out work under the principles of "fairness, unity, service"; serves as a bridge and link between government and enterprises and institutions; to promote the development of China's computer industry.

The competent authority of the China Computer Industry Association is the Ministry of Industry and Information Technology.

China Computer Industry Association is one of the authoritative mass organizations of the information industry in China. Most of its members are manufacturers of computers and related products. Many well-known computer companies are members of the association.



Statistics show that their computer output value accounts for 60% of the total computer industry output value in China. There are nineteen members among the top hundred electronic enterprises. Their sales account for 23% of sales of the top one hundred, and 37% of total sales of computers on the domestic market.

The membership of China Computer Industry Association is showing a tendency to developmental pluralism. Joint-ventures, foreign capital enterprises, and enterprises jointly managed by China and foreign countries, in the association account for 27% of its membership, injecting new vitality into the development of the China Computer Industry Association.

• Superior of CCIA

Ministry of Industry and Information Technology

• Leadership of CCIA

Honorary Chairman: Zhi WANG, Qi ZHANG, Maochao ZENG

Chairman: Ming LU

• Member status

CCIA has 600 plus member organisations, some of its member companies are listed below:

- ♦ Beijing Computer Factory No. 1
- ♦ VIA Technologies (China) Co., Ltd.
- ♦ Shenzhen MingHua AoHan Technology Co., Ltd.
- *→ Tianjin Samsung Electronics Display Co., Ltd.*
- ♦ Jilin North Display Digital Electronics Co., Ltd.
- ♦ Beijing KeChuang JingCheng Barcode Technology Co., Ltd.
- *♦ East China Institute of Computing Technology*
- ♦ Dandong JinLong Technology Development Co., Ltd.
- ♦ Shenzhen KangGuan Computer Technology Co., Ltd.
- ♦ WeiGuanTechnology (Shenzhen) Co., Ltd.



13. China Electronic Components Association

(CECA, 中国电子元件行业协会)

• Website: http://www.ic-ceca.org.cn/

• Contact info.

Tel: 86-10-68638939, 86-10-68638969

Fax: 86-10-68637639

Address: Room 311, Zhongchu Building, Shijingshan Road, Beijing, 100049

• Key responsibilities

- 1) Plays the role of a bridge and link between the government and enterprises. Actively reports the industry and association member's desires and requirements to the government, assists the government in managing the electronic component industry;
- 2) Carries out the industry investigation and research. Actively proposes suggestions on industry development and legislation etc. to the government, participates in formulating and revising the preliminary investigation and interim evaluation of the industry development;
- 3) Strengthening industry self-discipline around standardizing the market order, vigorously promoting industry integrity building, regulating the behaviour of members, coordinating member relations and safeguarding a fair competitive market environment;
- 4) Fulfilling the mission of its services business, conducts industry statistics compilation, grasps the development dynamic of the industry at home and abroad, collects and publishes industry information; publishes newspapers and establishes its website in accordance with the relevant regulations, carries out consulting services on technology, economy, management, market etc., organize training of talents, technology, management, and laws & regulations;
- 5) Assists enterprises in exploring markets. Carries out economy and technology exchanges and cooperation at home and abroad, contacts with relevant international organizations, holds exhibitions entrusted by the government or according to market and industry development needs; actively participates in coordinating foreign trade disputes, organizes member companies carrying out anti-dumping, countervailing and other safeguards related work, maintains the normal import and export order;



6) Approved by the related department of the government, organizes new product identification, R&D outcome reviews, industry standard formulation, and quality supervision etc.

• Superior of CECA

Ministry of Industry and Information Technology

• Leadership of CECA

Honorary Chairman: Weizhi QU, Xinkui LV

Chairman: Xueli WEN



14. Technology Innovation Strategic Alliance of Internet of Things Industry

(物联网产业技术创新战略联盟, TTSAIoTI)

• Website: http://www.china-iot-alliance.cn/member.asp

• Contact info.

Tel: 86-10-64303105

Address: Building 202, A10, Jiuxiangiao North Road, Chaoyang Dist. Beijing, 100015

Email: public@china-iot-alliance.org

• Key responsibilities

The key mission of the alliance is to: extract the significant requirements of the IoT; regarding the key issues of IoT innovation, organize enterprises, universities and institutions to carry out some important technology innovation and research activities; promote the significant technology breakthroughs; build key technology, products and standards of the industry; support and lead the development of the industry; realise the promotion and application of IoT technology in China and the global market; improve the entire competitiveness of China's IoT industry.

Its key responsibilities are:

- 1) Research the industry innovation strategy, provide a decision-making reference for the government about relative policy making and successful implementation of significant projects;
- 2) Promote and dominate the enaction of IoT technology standards;
- 3) Carry out project cooperation, organize the implementation of significant technology innovation projects and special industrialization projects;
- 4) Integrate the advantages of the alliance members, carry out joint technology research;
- 5) Drive resource integration of the upstream and downstream of the industry chain, achieve industry cluster development;



- 6) Integrate the power of industry-university-research to establish compact independent innovation platforms;
- 7) Actively promote technology exchange and cooperation inside and outside the alliance;
- 8) Promote the intellectual property strategy implementation for alliance members.

• Superior of TTSAIoTI

Ministry of Science and Technology

• Member status

Some of TTSAIoTI's member companies are listed below:

- ♦ Huawei Technologies Co., Ltd
- ♦ China University of Mining & Technology
- ♦ Beijing University of Post & Telecommunication
- ♦ Jiangsu Sailian IT Industry Institute Union
- ♦ Nanjing Sample Technology Co. Ltd
- ♦ Beijing HUNRAY Technology Co. Ltd
- ♦ Beijing HuaYuanQiuShi Technology Co. Ltd



15. China Strategic Alliance of Smart City Industrial Technology Innovation

(中国智慧城市产业技术创新战略联盟, CSAoSCITI)

• Website: http://www.smartcityunion.cn/

Contact info.

Tel: 86-10-82317867

Address: Room 701, BoYan Building, #238 North 4th Ring Middle Road, Haidian Dist.,

Beijing,

Email: secret@smartcityunion.cn

• Key responsibilities

The key mission of the alliance is with the goal of breaking through common & critical technology and developing key technology competitiveness of smart city IT industry, integrate industry-university-research-application resources, establish the mechanism and channel communicated with the government, platform of talents training and international cooperation, promote self development of the member companies. Meanwhile, the alliance supports the construction and implementation of China independent technology and standard system of smart city, promote the realization of leap development of city informatization level, lead & guide the technical development trend of international relevant fields.

- 1) Around the common and critical technology issues, taking the smart city data processing as the core, organize enterprises, universities, and research institutions to develop technical cooperation, build the key technical competitiveness of smart city IT industry;
- 2) Publicize and execute the relevant policies, laws and regulations, establish the common strategy, together seek support of policy, law, regulation, funding, public opinion, report the wishes and requirements of alliance members to the related department of the government, create good social environment for industry development;
- 3) On the basis of complementary advantages, resources sharing, and fully developing the resource and capacity of alliance members, realize the effective division of labor and reasonable connection of innovation resource. Build public technical platform, execute intellectual property sharing;



- 4) Implement technology transfer, accelerate the commercialization of technical achievements, improve industry entire competitiveness;
- 5) Jointly cultivate talents, strengthen personnel's exchange and interaction, provide talents support for industry continuous innovation.

• Superior of CSAoSCITI

Ministry of Science and Technology

• Member status

CSAoSCITI has 57 member organisations in total, some of its member companies are listed below:

- ♦ Hubei Hexing Group
- ♦ China Academy of Telecommunication Research of MIIT
- ♦ Founder International Co., Ltd
- ♦ Digital China Co., Ltd
- ♦ Aerospace Hi-Tech Holding Group Co., Ltd
- *♦* Wuhan University
- *♦ Beihang University.*



Part 2 Overview of other Chinese national organisations supporting Chinese industry

16. Chinese ICT industry associations and alliances

Beidou satellite navigation application industry alliances¹

Since early 2012 the cities of Shanghai, Beijing, Nanjing, and Shenzhen, and the provinces of Sichuan and Guangdong have separately founded Beidou satellite navigation industry alliances or industrial zones.

The establishment of the navigation alliances or industrial zones is part of the Chinese government's plan to accelerate the adaptation of the Beidou Navigation Satellite System (BDS), domestically engineered by China. Its competitor, the US Global Positioning System, still holds the advantage in terms of cost, market scale and marketing.

China Association of Communications Enterprises²

China Association of Communications Enterprises was voluntarily formed by communications operators, information services providers, equipment manufacturers, construction, operation and maintenance of the network, network security and other communication industry-related businesses, institutions, and non-profit community organizations. It plays a bridging role to government services for its members to promote the development of the communications industry and information technology, and to promote industrialization and information integration. Its main functions include³:

- Providing advice and reference for government departments and enterprises
- Drafting or participating in the development of industry standards, research organizations, research and consulting, information reporting, industry statistics organizations,

http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20131128000071&cid=1102

² http://www.cace.org.cn/

³ http://www.cace.org.cn/new/content/2006-05/13/content 866410.htm



organizations and businesses for practitioners' qualification certification and inspection, and other qualifications

• Organizing foreign economic and technological exchanges and cooperation, coordination of foreign trade disputes

China Embedded System Industry Alliance (CESIA)⁴

China Embedded System Industry Alliance was the first non-governmental organization in China's embedded systems industry. It aims to build a complete embedded system industry chain, promote exchanges between enterprises and government as well as international counterparts, to increase the overall competitiveness of the industry.

China Electronic Appliance Corporation (CECC)

The China Electronic Appliance Corporation⁵ is a national body formed to promote and nurture the electronics industry in China. It is a trade association.

China High-Performance Computer Industry Alliance⁶

The China High-Performance Computer Industry Alliance was founded under the guidance of the Ministry of Industry and Information Technology. The alliance is aimed at promoting the cooperation of IT enterprises in fields such as host, chip, operating system, database, and middleware, establishing China's own high-end IT industry chain, and realizing the transformation and upgrading of its development. It vigorously promotes the application and promotion of high-end IT Products, as well as accelerating the proprietary progress of the national information strategy. The purpose of establishing a national host industry alliance was to establish cooperation and exchange mechanisms among members to set about the formulation of related standards for the industry.

⁴ http://www.techsecuritychina.com/2008/07/01/6943-china-embedded-system-industry-alliance-unveiled-in-beijing/

⁵ http://www.digitivity.com/association/china.html

⁶ http://www.inspur.com/inspur/495255/494903/508719/index.html



China Smart City Industry Alliance (CCIT)

The China Smart City Industry Alliance (China smart Cities IndusTry Alliance), abbreviated as CCIT⁷ was founded on 10 October 2013 to boost the development of smart technologies in China and help the country meet its urbanization challenges⁸. It a Chinese national Ministry of Industry and Information Technology (MIIT) approved agency the aims of which include developing industry standards with independent intellectual property rights and promoting the harmonious development of emerging smart industries.

The totality of its work is best viewed in the context of the hierarchy of Chinese industry associations focussed on Smart Cities which reviewed in CHOICE project internal report I-4 The current status of ICT R&D&I for Chinese Eco-Cities: The implications for EU-China collaboration in ICT R&D&I.

National Industry Alliance of Smart City Technology Innovation

The National Industry Alliance of Smart City Technology Innovation brings together expertise related to the urban industrial chain, including sensor design and manufacturing, data acquisition and processing, chip design and manufacturing and intelligent terminals, software and industry applications, planning and consulting, investment, and all aspects of competitive enterprises.

The overall objectives of the Alliance are through market demand traction, gathering smart city enterprises, universities, and research institutes, and industrial capital, to create a smart city technology innovation system and industrial base, to form a smart city industry chain and promote the rapid and orderly development of China's large-scale smart city industry, establish a well-known brand, build a national team, and nurture and strengthen member companies.

As the main technical innovation alliance in this area it has: developed an information platform of smart city technology standards; developed the smart city's diverse heterogeneous data acquisition, processing, and exchange technology; within the established urban infrastructure elements developed a monitoring and management platform and related construction specifications and procedures, developing a series of sensors that connect to the

⁷ www.ccit.org.cn

⁸ http://www.chinadaily.com.cn/bizchina/2013-10/10/content 17021380.htm



urban management and automation equipment. It has addressed challenges of large-scale production, and the operation and maintenance of urban management "big data" systems, including dynamic monitoring, information extraction, and the refinement of the application of information services.

At the 2nd Internet of Things (IoT) Symposium 16-17 April 2014 in Hong Kong officials from the Chinese government and the EU spoke about the development of smart cities using the IoT in China and the EU⁹. The secretary general of National Industry Alliance of Smart City Technology Innovation¹⁰ said the central government's objectives for smart cities are to enhance city planning, building and management stating that: "The Smart city is a new ecosystem of city management and public service delivery," The Alliance's smart city initiatives will aim to improve city traffic, city administration, energy supply, underground space utilization, water supply and other areas closely related to the well-being of the public. The three areas that have been the focus of largest number of smart city projects have been public information portals (79 projects), public infrastructure databases (72 projects), and egovernment (53 projects).

Shanghai Software Industry Association (SSIA)

The Shanghai [City] Software Industry Association (SSIA)¹¹ is one of the earliest established software industry associations in China. It has a particular interest in software quality management and process improvement, software services, software, intellectual property, embedded systems and software, open source software and educational software, reflecting the wide range of its member organisations' interests.

The Shanghai Software Industry Association has a role in software engineering practices and industry self-regulation. It studies software engineering specifications and standards. The association's "software price estimation methods" and "Software Product Specification", provide the basis for software industry standard development. The association organizes technical information and management experience exchanges between its members.

⁹ http://cw.com.hk/feature/china-eu-tackle-urbanization-challenges-smart-city-pilots

http://cylm.scitycn.org/en

¹¹ http://www.chinaccia.org.cn/



Shenzhen City Big Data Industry and Innovation Alliance

In January 2014 the Shenzhen City Big Data Industry and Innovation Alliance was launched, this Alliance is sponsored by the Technology Innovation Committee of the Shenzhen Government which comprises numerous key enterprises of the Big Data industry in Shenzhen City. The Alliance aims at promoting industry collaborations and Big Data technology developments and applications to promote Shenzhen City's pioneering position in China's Big Data industry¹².

"As a national strategic emerging industry, Big Data has received great attention from the Chinese government. The "Twelfth Five-year Plan for the National Development of Strategic Emerging Industries" clearly advocated the research and development of mass data storage, processing technology, and industrialization. The "Internet of Things Five-Year Plan" lists information processing technology as one of the top technology innovation initiatives. Smarter Cities are leveraging Big Data technology to improve infrastructure, planning and management, and human services with the goal of making cities more desirable, livable, sustainable, and green. Some specific focus areas include mass transit, utilities, environment, emergency response, big event planning, public safety, social security, and healthcare."

Shenzhen Electronics Industry Association

The Shenzhen¹³ Electronics Industry Association¹⁴ was established to safeguard the legitimate rights and interests of its member companies to provide services to its members, to promote the development of Shenzhen's electronics industry; to act as a bridge and a link between government and enterprises and assist the Government to carry out macromanagement of the industry. It is involved in industry-self regulation activities.

Its tasks include assisting the Government in formulating industry development plans, participating in the consideration of major projects in the industry; conducting industry research, monitoring industry trends, offering advice and recommendations to the government on behalf of the industry; quality diagnosis, certification, consulting services, for

http://www.prnewswire.com/news-releases/china-information-technology-inc-chairs-the-shenzhen-city-big-data-industry-and-innovation-alliance-240458841.html

¹³ Guangdong Province

¹⁴ http://www.szeia.com/sc/association/about.asp



the enterprise outbound overseas personnel certification procedures; providing policy, economic, technical, scientific and technological information to its member companies.

Smart City Development Alliance

This is a recently established Chinese national smart city alliance the "Smart City Development Alliance", a signing ceremony for which was held concurrently with China International Urbanization Forum 2014 in Shanghai on April 19, 2014¹⁵. Formed by the National Development and Reform Commission (NDRC)¹⁶ this alliance helps promote urban governance, city management and public service innovation.

¹⁵ http://www.chinadaily.com.cn/m/beijing/zhongguancun/2014-05/05/content_17483684.htm

http://www.chinabusinessreview.com/smart-city-development-in-china/



17. Chinese ICT Evaluation Centres

Beijing [City] Information Security Evaluation Center 17

The Beijing Information Security Evaluation Center (Beijing Information Security Test and Evaluation Center) is Beijing municipal government approved.

China Software Evaluation Center¹⁸

This Center is of major national importance to ICT businesses in China. Its main roles are:

- The reliability of electronic systems business description which includes:
 - o IOT program design, verification, evaluation services
 - Cloud Computing Design and Evaluation
 - o Data Center (room) Evaluation Services
- Product Evaluation and Information Systems which includes:
 - o National e-government system application software acceptance testing
 - Power Information System Test
 - National Science and Technology Special Assessment Service
- Information Security Evaluation which includes:
 - Electronic authentication of public services
 - o Government information security research and policy advice auxiliary
 - Personal Information Protection Standards Compliance Assessment
- Military software and system evaluation
- Industrial control system reliability evaluation

¹⁷ http://www.bjtec.org.cn/cenep/html/index.html

¹⁸ http://www.cstc.org.cn/



- Mobile Internet applications software evaluation
- Photovoltaic (PV) products and systems evaluation

Importantly for CHOICE the Center plays a significant role in smart cities development in China. It has responsibility for City top-level design and evaluation of Smart City Consulting, environmental / health planning and evaluation of Smart City Seminar series, Project Management.

Its responsibilities are very wide ranging and encompass: Education sector supervision and counselling; Government Information Technology Project Management; E-Science project supervision; ITSS conformity assessment and consultation; IT Services / Security Management System Consulting; Computer Information System Integration Qualification Accreditation and Information Systems Project Management Qualification Accreditation; the Government website performance evaluation group.

Guangdong [Province] Information Technology Security Evaluation Center¹⁹

Guangdong Provincial Information Security Evaluation Center is a Guangdong Provincial People's Government approved independent institution.

Shanghai [City] Information Security Testing Evaluation and Certification Center 20

Is a Shanghai municipal government approved center.

¹⁹ http://www.gditsec.org.cn/

http://www.shtec.gov.cn/



Shenzhen City Information Technology Security Evaluation Center²¹

Shenzhen Information Security Evaluation Center (Shenzhen Information Engineering Quality Supervision and Inspection Station) (referred to as SISTEC) is an independent institution which is Shenzhen Municipal Office approved.

State Information Center Software Testing Center²²

National Information Center Software Testing Center is a National Development and Reform Commission approved national home-level software products and information systems professional evaluation agency, with national measurement certification.

The Center provides, evaluation services: a cloud services platform, information systems auditing, software reliability assessment; personnel training and other professional information; technical services for government, research institutions and enterprises to provide overall technical service solutions.

The National Evaluation Service System has regional centers in Chongqing, Guangdong, Sichuan, Fujian, Shenzhen, Shanghai, Shandong, Yunnan, Jiangsu, Tibet, Hebei, Hubei, Liaoning, Zhejiang, Inner Mongolia and other regions, under the unified management of the Center.

On 9 July 2014 the Center hosted the Smart City Development Research Center of China 2014 annual meeting.

²¹ http://www.stc.org.cn/pczx/main/portal/login/index.aspx

²² http://www.stc.sic.gov.cn/



18. Chinese Software and Integrated Circuit Promotion Centre

The Ministry of Industry and Information Technology Software and Integrated Circuit Promotion Center (CSIP)

CSIP is China's national software and integrated circuit public service platform²³.

It major responsibilities are to²⁴:

Provide support and guarantees for major technology items of national core electronic elements, high-end general chips, and fundamental software products.

Promote R&D and application of advanced technologies and common technologies in relevant fields, and engage in scientific achievement transforming, promotion, and importantly for CHOICE technical exchange and consultation with domestic and overseas partners.

Engage in construction of a national industrial public service platform and industrial public service system for software and integrated circuit industries, and provide a public, neutral, and open service for the development of the software and integrated circuit industries and enterprises of the nation.

Engage in industry and informatization related fields' soft science research, such as strategic research and IPRs warning research, and provide supportive services for government's decision-making and industry development.

Be responsible for the training of high-end and critical talent related to the industry and informatization fields.

Undertake other issues ordered by the Ministry of Industry and Information Technology of the People's Republic of China.

²³ http://www.miit-csip.org.cn/CS<u>IPEnglish/CSIPEnglish_Aboutus/DevelopmentHistory/</u>

²⁴ http://www.miit-csip.org.cn/CSIPEnglish/CSIPEnglish Aboutus/CSIPIntroduction/



19. Chinese ICT standards associations

China High-Performance Computing standardisation committee²⁵

The High-Performance Computer Standardization Committee (HPCSC), an independent special interest group devoted to developing in-country resources for high-performance computing which consists of volunteers from domestic and foreign enterprises, institutions, standardization bodies and individuals engaged in standardization work in the field of electronic and IT technologies. The association is a direct affiliate of the Chinese Electronics Standardization Association, under the supervision of the Ministry of Industry and Information Technology.

China Society for Urban Studies (CSUS)

The leading government body responsible for the development of a national Eco-city standard is the China Society for Urban Studies (CSUS). Most research around China's EcoCities standard focuses upon Key Performance Indicators, several of which have been established by CSUS against which the performance of Eco-Cities, once constructed, will be evaluated.

Progressing Eco-city Policies into Main-stream Practice – Action Research on Policy, Financing and Implementation Strategies for Low Carbon Cities in China was a project supported by the UK Foreign & Commonwealth Office and China's National Development & Reform Commission that reported its results in July 2012²⁶.

The project reviewed the Chinese national standard for Eco-cities standard and its KPIs. An implementation tool was developed in the project to support the Eco-City Assessment and

https://ssiforum.org/index.php?option=com_content&view=article&id=49:server-system-infrastructuresm-forum-announces-liaison-agreement-with-the-high-performance-computer-standardization-committee-of-china&catid=9:press-releases&Itemid=18

²⁶ Progressing Eco-city Policies into Mainstream Practice in China, The UK-China Ecocities & Green Building Group, July 2012. (http://ols.cbbc.org/eco-cities/progressing%20eco%20city%20policies.pdf)



Best Practice standards developed by CSUS. The tool comprises a framework with sets of high-level, strategic questions that aid decision making at the planning and master plan design stages.

The project determined that the 'hardware' of Eco-city urban planning and design should include SMART infrastructure which utilises Information and Communications Technology (ICT) to enable virtual connections, reduce physical urban loads, and in combination with face-to-face interaction promote quality of life. Although SMART can be adopted loosely as a label, Eco-city relevant technologies can be clearly defined, critically appraised and selectively adopted.



Part 3 Overview of EU organisations that support EU industry at an EU level

20. European industrial associations

ARTEMIS Industry Association http://www.artemis-ia.eu/about_artemis.html

Advanced Research & Technology for EMbedded Intelligence and Systems

"ARTEMIS Industry Association is the association for actors in Embedded & Cyber-Physical Systems within Europe. As private partner, the association represents its members - industry, SMEs, universities and research institutes - in Electronic Components and Systems (ECSEL) Joint Undertaking²⁷.

ARTEMIS Industry Association continuously promotes the R&I interests of its members to the European Commission and the Public Authorities of the participating states. It continues the work of the European Technology Platform ARTEMIS and is therefore responsible for the ARTEMIS Strategic Research Agenda (SRA) on Embedded & Cyber-Physical Systems, which reflects the Research & Innovation (R&I) needs of the industry. The association strongly believes that the continued success of the Embedded & Cyber-Physical Systems sector in Europe depends on one coordinated, pan-European strategy.

ARTEMIS Industry Association is a membership organisation with more than 180 members and associates from all over Europe. The multidisciplinary nature of the membership provides an excellent network for the exchange of technology ideas, cross-domain fertilisation, as well as for large innovation initiatives."

http://www.ecsel.eu/web/index.php



Cable Europe http://www.cable-europe.eu/about-us/

"Cable Europe is the trade association that connects leading broadband cable TV operators and their national trade associations throughout the European Union.

Cable Europe is a not-for-profit, non-commercial professional membership organisation. Cable Europe membership is open to broadband cable TV operators and national cable associations within the European Union.

The European cable TV industry provides high speed broadband internet, digital TV services, and telephony to more than 76 million customers."

"Regulatory & Public Policy

The regulatory and public policy activities of Cable Europe aim to promote and defend the industry's policies and business interests at European and international level.

Cable Europe is an engaged member of the technology policy community and an active player in the domain of related regulation.

The liberalisation of the European telecoms sector, current relevant legislation and future EU policy endeavours are key concerns of European cable operators"

The key areas of Cable Europe's lobby activities are: Audiovisual, Competition Law, Copyright, Data Retention, Network Related Items, and Privacy.

DIGITALEUROPE http://www.digitaleurope.org/

"DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies.

We ensure industry participation in the development and implementation of EU policies.

DIGITALEUROPE's members include 58 corporate members and 36 national trade associations from across Europe."



With such a broad remit the actual work of DIGITALEUROPE is carried out through its Policy groups which cover: Digital Economy, Environment, Technical & Regulatory, and Trade. The remit of each these groups is so large that their work is carried out through their Working groups which are listed below.

- Digital Economy: Consumer policy, Copyright, Intellectual property rights, Market regulation, Privacy and security
- Environment: Chemicals, Ecodesign, Resource efficiency. Waste
- Technical & Regulatory: Broadcast, e-Inclusion, Market Access, Mobile Terminals, R&D, Smart Grids, Spectrum, Standards and Interoperability
- Trade: Customs related issues, International Agreements, Market access to Third Countries

European Competitive Telecommunications Association (ECTA)

http://www.ectaportal.com/en/HOME/Welcome/

The mission of EICTA is: "To promote and foster a regulatory environment for the European Communications Sector which ultimately supports free market competition and leads to political, social and economic benefits for all Europe's businesses and consumers.

Aims & Objectives

- Assist and encourage market liberalisation and competition
- Represent the telecommunications industry to key government and regulatory bodies
- Maintain a forum for networking and business development throughout Europe
- Assist new market entrants through pro-competitive policies
- Continually reflect the dynamic nature of the telecommunications industry"



European Digital Media Association (EDIMA)

http://www.europeandigitalmediaassociation.org/

"EDiMA, is the European trade association representing online platforms. It is an alliance of new media and Internet companies whose members include Allegro Group, Amazon EU, Apple, eBay, Expedia, facebook, Google, Microsoft, Nokia, Yahoo! Europe. EDiMA's members provide Internet and new media platforms offering European consumers a wide range of online services, including e-content, media, e-commerce, communications and information/search services.

- EDiMA supports policy initiatives that are pro-consumer and promote innovation and growth in the new media sector.
- EDiMA believes that all stakeholder interests in the value chain should be considered when formulating policy for the new media sector. Ensuring that everyone benefits from the cultural and economic opportunities offered by the new media sector enables the new media sector to continue as a driver for cultural diversity and economic growth in the EU.
- EDiMA advocates policies to ensure that barriers to pan-European E-commerce are addressed and consumers can benefit from cross-border commerce."

European Satellite Operators' Association (ESOA) https://www.esoa.net/

ESOA was formed to: "represent the interests of the industry with key European organisations, including the European Commission, Parliament, Council and the European Space Agency as well as other international organisations. ESOA's goals include ensuring that satellites benefit from the appropriate political, industrial and regulatory environment to fulfil their vital role in the delivery of communications."

"ESOA is often consulted as reference point for the industry by policy-makers, national and international regulators, other industrial groups, associations and academics for information concerning facts and views of the industry or with requests to cooperate on specific issues. It often participates in conferences representing the space or satellite operator's industry.

As the provision of satellite communications through ESOA members in fact implies global coverage, ESOA also has Co-operations with other organisations on issues that affect members' business outside Europe."



European Semiconductor Industry Association (ESIA)

http://www.eeca.eu/esia/home

ESIA represents the European semiconductor industry in Brussels. "Its mission is to represent and promote the common interests of the Europe-based semiconductor industry towards the European Institutions and stakeholders in order to ensure a sustainable business environment and foster its global competitiveness."

"Semiconductor products are the key enabler for improved energy consumption and performance across a wide range, of everyday technology applications in society. These applications in the field of industrial operations, consumer electronics, healthcare, security and energy devices have contributed to improved energy efficiency for positive societal change."

"The industry was ranked as the most R&D intensive sector by the European Commission in 2011 and supports around 200,000 jobs directly and more than 1,000,000 indirect jobs in Europe."

European Telecommunications Network Operators Association (ETNO) https://www.etno.eu/

ENTO's activities are predominantly issue-based. When an issue arises a working group set up to it. ETNO working groups cover topics ranging from Research and Development to various EU policy matters. A working group is normally dissolved once its tasks have been completed.

The working groups of ETNO currently cover:

Competitive Markets, Digital Society, Research & Innovation, Corporate Responsibility, Digital Single Market, Data Protection, Trust & Security, Spectrum Policies, Employment, Health & Safety, Fraud, Cybercrime and Network Security, Benchmarking, CERT, Energy Task Force, Internet Governance, Naming, Addressing and Numbering Issues, Tax Issues, Communications Managers, External Trade Issues, ITU



Internet service providers association in the European Union (EuroISPA) http://www.euroispa.org/

"EuroISPA is a pan European association of European Internet Services Providers Associations (ISPAs). It is the world's largest association of Internet Services Providers (ISPs), representing over 2300 ISPs across the EU and EFTA countries – including ISPs from Austria, Belgium, the Czech Republic, Finland, France, Germany, Ireland, Italy, Norway, Romania and the UK.

The association was established to represent the European ISP industry on EU policy and legislative issues and to facilitate the exchange of best-practices between national ISP associations."

EuroISPA was established to achieve several important objectives including:

"To protect and promote the interests of Europe as a whole within the global Internet, securing a premier position for Europe in the key industry of the new Millennium.

To help deliver the benefits of this new technology of liberation and empowerment to individuals, while at the same time, meeting the legitimate concerns of parents and others responsible for the more vulnerable members of society.

To encourage the development of a free and open telecommunications market"



21. EU Public-Private Partnerships

5G Infrastructure Public-Private Partnership (5G PPP) http://5g-ppp.eu/

"Initiated by the EU Commission and industry manufacturers, telecommunications operators, service providers, SMEs and researchers. The 5G PPP will deliver solutions, architectures, technologies and standards for the ubiquitous next generation communication infrastructures of the coming decade."

"The challenge for the 5G Public-Private Partnership (5G PPP) is to secure Europe's leadership in the particular areas where Europe is strong or where there is potential for creating new markets such as smart cities, e-health, intelligent transport, education or entertainment & media. The 5G PPP initiative will reinforce the European industry to successfully compete on global markets and open new innovation opportunities."

Electronic Components and Systems (ECSEL) Joint Undertaking (JU) http://www.ecsel.eu/web/index.php

ECSEL is the Public-Private Partnership (PPP) targeted with keeping Europe at the forefront of technology development in Electronic Components and Systems, a pervasive Key Enabling Technology:

"A smartphone, a smart card, a smart energy grid, a smart city, even smart governance; everything "smart" is based on integrating semiconductor chips running embedded software. They provide the fabric on which the internet runs; they give life to portable phones and tablets; they drive driverless cars and trains, fly airliners, drones and satellites. In modern times, no national economy can win in the global competition without mastering this technology, with unparalleled systemic and strategic impact."²⁸

The objectives of the ECSEL JU include:

²⁸ http://www.ecsel.eu/web/JU/local index.php



"Contribute to the development of a strong and globally competitive electronics components and systems industry in the European Union;

Ensure the availability of electronic components and systems for key markets and for addressing societal challenges, keeping Europe at the forefront of technology development, bridging the gap between research and exploitation, strengthening innovation capabilities and creating economic and employment growth in the Union;

Build a dynamic ecosystem involving Small and Medium-Sized Enterprises (SMEs), strengthening existing clusters and creating new clusters."

The Members of the ECSEL JU are:

"The European Union (through the Commission); Member States and Associated Countries to the Framework Programme Horizon 2020 on a voluntary basis; Three associations (EPoSS, AENEAS and ARTEMIS Industry Association) representing the actors from the areas of micro- and nano-electronics, smart integrated systems and embedded/cyber-physical systems."

ENIAC Joint Undertaking (JU) http://www.eniac.eu

"The ENIAC Joint Undertaking (JU) is a public-private partnership focusing on nanoelectronics that brings together ENIAC Member/Associated States, the European Commission, and AENEAS (an association representing European R&D actors in this field)."

The objectives of the ENIAC JU are to²⁹:

- "a) Define and implement a Research Agenda
- b) Award funding to participants
- c) Mobilise both public and private efforts to increase overall R&D investments
- d) Achieve synergy and coordination of European R&D efforts

²⁹ http://www.eniac.eu/web/JU/missionandgoals.php



e) Promote the participation of SMEs"

"The ENIAC Joint Undertaking supports R&D activities through open and competitive calls for proposals while ensuring with the independent evaluation and selection of proposals, allocation of public funding to selected proposals, and the funding of projects." ³⁰

euRobotics AISBL (Association Internationale Sans But Lucratif)

http://www.eu-robotics.net/

"euRobotics AISBL (Association Internationale Sans But Lucratif) is a Brussels based international non-profit association for all stakeholders in European robotics. euRobotics builds upon the success of the European Robotics Technology Platform (EUROP) and the academic network of EURON, and will not only continue the cooperation but will also strengthen the bond between members of these two community driven organisations. Thus, leading towards the establishment of only one sustainable organisation for the European robotics community as a whole.

One of the association's main missions is to collaborate with the European Commission (EC) to develop and implement a strategy and a roadmap for research, technological development and innovation in robotics, in view of the launch of the next framework program Horizon 2020. Towards this end, euRobotics AISBL was formed to engage from the private side in a contractual Public-Private Partnership with the European Union as the public side."

"The objectives of euRobotics are to boost European robotics research, development and innovation and to foster a positive perception of robotics. It aims at: strengthening competitiveness and ensuring industrial leadership of manufacturers, providers and end users of robotics technology-based systems and services; the widest and best uptake of robotics technologies and services for professional and private use; the excellence of the science base of European robotics."

³⁰ http://www.eniac.eu/web/calls/local_index.php



Photonics²¹ http://www.photonics21.org/

"Photonics21 represents the European photonics community of industry and research organisations. Our members develop a common photonics strategy for future research and innovation in Europe."

From³¹: "The "Photonics 21 Association" - a legal entity under Belgium law - was formed to become the private contract partner in a contractual Public Private Partnership (PPP) arrangement with the EU Commission in the frame of Horizon 2020."

"As one of six Key Enabling Technologies (KET's) in Europe Photonics plays a major role for driving growth and employment in Europe and contributes to solve the major societal challenges such as aging society, energy efficiency, inclusion and smart living."

³¹ http://www.photonics21.org/AboutPhotonics21/Photonics-PPP.php



22. European Technology Platforms

European Technology Platform for High Performance Computing (ETP4HPC)

http://www.etp4hpc.eu/

An industry-led initiative, The European Technology Platform (ETP) for High Performance Computing (HPC), is an industry led initiative targeted with defining research priorities for the development of a globally competitive HPC technology ecosystem in Europe. "It will propose and help to implement a Strategic Research Agenda, while acting as the "one voice" of the European HPC industry in relations with the European Commission and national authorities."

It is notable that the website of ETP4HPC states that³²: "To sustain its competitiveness, Europe needs to enhance its innovation capabilities using HPC. However:

Today, HPC is mostly used in large HPC research centres and some large enterprises. It needs to become much more pervasive across the entire industry, including Small and Medium Enterprises (SMEs).

While Europe represents a significant portion of the world's available HPC resources, only a fraction of that technology and infrastructure is developed in Europe.

Other regions invest considerably more in new technologies, architectures and software for HPC systems, gaining a substantial competitive edge over Europe."

European Technology Platform on Smart Systems Integration (EPoSS)

http://www.smart-systems-integration.org

"EPoSS is an industry-driven policy initiative, defining R&D and innovation needs as well as policy requirements related to Smart Systems Integration and integrated Micro- and

³² http://www.etp4hpc.eu/about-us/who-we-are/



Nanosystems. EPoSS is contributing to EUROPE 2020, the EU's growth strategy for the coming decade, to become a smart, sustainable and inclusive economy.

EPoSS provides a common European approach on Innovative Smart Systems Integration from research to production, defines priorities for common research and innovation in the future, formulates commonly agreed road maps for action, provides a Strategic Research Agenda, mobilises public and private resources, and supports its members in coordinating their joint research efforts and improving communication amongst the members as well as towards the European Commission."

The EPoSS members are a group of major industrial companies and research organizations from more than 20 European Member States.

Integral Satcom Initiative (ISI) http://www.isi-initiative.org

"ISI is the European Technology Platform on Satellite Communications, whose membership embraces major part of relevant private and public stakeholders from Satellite Communications (SatCom) and Space sector in Europe."

From³³: "ISI addresses broadcasting, broadband, and mobile satellite communications, as well as their convergence, in integration within the global telecommunication network infrastructure. ISI supports all forms of space communication and space exploitation."

"ISI intends to collaborate and cooperate with the European Commission, the European Space Agency (ESA), the EU and ESA Member States and Associated States, the National Space Agencies, International Organizations, User fora, and other European Technology Platforms. ISI fosters international cooperation under a global perspective."

"Representative sectors of interest include ICT, Space, Security, Transport, Development, and Environment."

"ISI addresses the integration of satellite communications with navigation, Earth observation, and Air Traffic Management systems. Specific attention is devoted to Galileo and GMES. Data relay systems and the use of Unmanned Aerial Vehicles are in the scope of ISI, as well."

³³ www.isi-initiative.org/isi-vision-statement



"ISI contributes to the harmonization of the European and International regulatory framework for satellite communications, helping in the removal of barriers. ISI works for the allocation of sufficient spectrum for all satellite communication applications and services. ISI favours the consideration of a regulatory framework for complementary ground components (CGC). ISI promotes open standards and international standardization approaches. ISI fosters wide adoption of common standards to enlarge markets, reduce costs and tariffs, facilitate interoperability and roaming, and ensure fair competition for the benefit of citizens, user communities and governments."

Net!Works http://www.networks-etp.eu/home.html

Net! Works is the name and brand of the eMobility European Technology Platform.

"In the context of future broadband communications, fixed and mobile systems will increasingly cooperate and converging. Therefore, we are currently establishing a closer cooperation with the Photonics21 ETP, because optical communication will provide the backbone for broadband mobile systems.

ICT will increasingly be used as a key enabler for other industry sectors and areas of our society. We will contribute to societal challenges such as energy, climate change, transport, health and the ageing population. In particular, in the area of electro-mobility (electric cars), the term "eMobility" is increasingly being used to refer to the domain of electric vehicles. Therefore, the eMobility ETP changed its name to Net!Works reflecting the convergence of fixed and mobile systems, as well as, distinguishing our area from electro-mobility."

The Net!Works Technology Platform had in September 2013 884 members. In the category "Research Domain" there were 321 members, including 157 industry members and 317 SME members.

From³⁴: "The Net!Works Technology Platform membership gives all member organisations the possibility to influence where the research related to future communication systems in the area of mobile and wireless is going within the EU's Framework Programme 7 and beyond."

³⁴ http://www.networks-etp.eu/about-networks/membership.html



"Members also have the chance to contribute and provide feedback to the Strategic Research Agenda."

New European Media (NEM) http://www.nem-initiative.org/

The NEM Initiative was founded with the aim of fostering the convergence between consumer electronics, broadcasting and telecoms in order to develop the emerging business sector of networked and electronic media. In order to respond to the new needs and requirements of the Horizon 2020 programme, the NEM initiative enlarged its focus towards the creative industries and changed its name (form Networked and Electronic Media) to New European Media.

"The NEM constituency includes all major European organisations working in the networked and electronic media area, including content providers, creative industries, broadcasters, network equipment manufacturers, network operators and service providers, academia, standardisation bodies and government institutions. Those actors share a common Vision and have been producing a Strategic Research and Innovation Agenda (SRIA)."

The NEM is currently focussed on the following areas: Digital Content, Distributed Media Applications, Future Media Delivery Networks and Network Services, New User Devices and Terminals.

Networked European Software and Services Initiative (NESSI)

http://www.nessi-europe.eu/

"NESSI is a European Technology Platform active in Information and Communication Technologies for contributing to the research and innovation space of Software and Service."

"It provides a platform for the community from industry and academia."



From³⁵: "NESSI promotes that software, services, and data are key enablers to help resolve European societal and economic challenges across all sectors, both private and public, such as manufacturing, transportation, energy, and healthcare."

"NESSI's first objective is to engage with European (ICT) Industry and to promote the need for dramatic changes due to new ICT eco-systems and innovations which are a pre-requisite for Europe to stay competitive globally. Innovation will take place in infrastructure, software, platforms, products, services, processes and information. Individual technologies will advance in areas such as servicification of products, platforms interoperability, real-time data analytics, Software-as-a-Service (SaaS) and virtualisation and these will all be supported by new advanced innovative software engineering techniques and tools."

35 http://www.nessi-europe.eu/?Page=about us



Part 4 Mapping of Chinese industrial associations to ETPs, PPPs, and EU industrial associations

23. Mapping of Chinese industrial associations to European Technology Platforms and Public-Private Partnerships

In the following table, if a Chinese industrial association or other relevant body maps to a European Technology Platform (ETP) or Public-Private Partnership (PPP) that is not a Chinese priority for EU-China collaboration in ICT R&D&I it is given in italics. The best matching Chinese association for each ETP and PPP is given in bold.



ETP and PPP in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
ARTEMIS Industrial Association [Continues the work of the ARTEMIS ETP] & ECSEL JU (PPP) http://www.ar		ARTEMIS Strategic Research Agenda (SRA) on Embedded & Cyber-Physical Systems, which reflects the Research & Innovation (R&I) needs of the industry.	 China Semiconductor Industry Association China Embedded System Industry Alliance Beijing Electronic Commerce Association China Electronic Components Association Shanghai Integrated Circuit Industry Association China Computer Industry Association
euRobotics AISBL (PPP)	Robotics	manipulation robots,robotic co-workers,logistics robots,	China Robot Industry Alliance
http://www.eu-robotics.net/		 security robots, robots used for exploration or inspection, edutainment 	



ETP and PPP in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
ETP4HPC (ETP)	High Performance Computing	 HPC System Architecture System Software and Management Programming Environment 	 High-Performance Computer Industry Alliance China Software Industry
http://www.etp4hpc.eu/		 Energy and Resiliency Balance, Compute, I/O and Storage Performance Big Data and HPC Usage Models 	 Association Shanghai Integrated Circuit Industry Association China High-Performance Computing standardisation committee
ENIAC JU (PPP)	European Nano- electronics Initiative Advisory Council	 more Moore: extremely dense, complex digital circuits (compute); beyond CMOS: pushing the physical limits of miniaturisation; more than Moore: non-digital 	 China Semiconductor Industry Association Shanghai Integrated Circuit Industry Association China Electronics Standardisation
http://www.eniac.eu		functions and human interface (interact); • heterogeneous integration: total system integration ('system-in-package'); • equipment and materials: enables manufacturing of complex technologies; • design methods and tools: platform-based system • design for extremely complex devices.	Association



ETP and PPP in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart	
EPoSS (ETP) http://www.integration.com	Innovative Smart Systems Integration .smart-systems- org	 smart systems applications automotive, aeronautics, information and telecommunications, medical technologies, RFID, safety and security, cross-cutting issues. 	 China Association of Communications Enterprises China Communications Standards Association China Electronics Standardisation Association 	
ISI (ETP)	Integral Satcom Initiative	 Integration of satellite communications with navigation, Earth observation, and Air Traffic Management systems. Data relay systems use of Unmanned Aerial Vehicles 	 The National Remote Sensing Center of China China Association of Communications Enterprises China Communications Standards Association 	
http://www.isi-initiative.org		 regulatory framework for complementary ground components harmonization of the European and International regulatory framework common standards allocation of sufficient spectrum for all satellite communication applications and services satcom support to Galileo and GMES 	 Beidou satellite navigation application industry alliances China Mobile Communications Association 	



ETP and PPP in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart	
future communication systems in the area of mobile and wireless convergence and cooperation http://www.networks- etp.eu/home.html		 optical communication as the backbone for broadband mobile systems. ICT as a key enabler for other industry sectors contributing to societal challenges such as energy, climate change, transport, health and the ageing population 	 China Association of Communications Enterprises China Mobile Communications Association China Communications Standards Association 	
NEM (ETP) New European Media		fostering the convergence between consumer electronics, broadcasting and telecoms in order to develop the emerging business sector of networked and electronic media.	 China Association of Communications Enterprises China Communications Standards Association China Information Technology Security 	
http://www.nem-initiative.org/		 Digital Content Distributed Media Applications Future Media Delivery Networks and Network Services New User Devices and Terminals. 	Evaluation Center	



ETP and PPP in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
NESSI European (ETP) Software and Services Initiative http://www.nessi-europe.eu/		 ICT for contributing to the research and innovation space of Software and Services software, services, and data as key enablers to help resolve European societal and economic challenges new advanced innovative software engineering 	China Software Industry Association China Association of Communications Enterprises
		techniques and tools supporting: supporting: servicification of products platforms interoperability real-time data analytics Software-as-a-Service (SaaS) virtualisation	
The Photonics 21 Association (PPP)	Photonics	 increased public and private investment in photonics research; greater cooperation and coordination between national and European research 	 China Optics and Optoelectronics Manufacturers' Association China Association of Communications
http://www.photonics21.org/		 programmes; stronger links between the photonics industry, research institutions and academia; identifying the existing and potential market of photonics in different sectors as a means to direct research strategies. 	 Enterprises China Communications Standards Association



ETP and PPP in	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
5G Infrastructure Public-Private Partnership (5G PPP) http://5g-ppp.ed	Solutions, architectures, technologies and standards for the ubiquitous next generation communication infrastructures	 leadership in the particular areas where Europe is strong or where there is potential for creating new markets such as: smart cities, e-health, intelligent transport, education entertainment & media. 	 China Mobile Communications Association China Strategic Alliance of Smart City Industrial Technology Innovation National Industry Alliance of Smart City Technology Innovation



24. Mapping of Chinese industrial associations to European industrial associations

In the following table, if a Chinese industrial association or other relevant body maps to a European industrial association that is not a Chinese priority for EU-China collaboration in ICT R&D&I it is given in italics. The best matching Chinese association for each European industrial association is **given** in bold.

European industrial association in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
ARTEMIS Industry Association			



European industrial association in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
DIGITALEUROPE http://www.digitaleurog	European Digital Technology Industry pe.org/	 Digital Economy Environment Technical & Regulatory Trade 	China Association of Communications Enterprises
European Competitive Telecommunications Association (ECTA)	Telecommunications industry	 Promote and foster a regulatory environment for the European Communications Sector which ultimately supports 	China Mobile Communications Association
http://www.ectaportal.c	http://www.ectaportal.com/		
European Digital Media Association	Online platforms	 Promote innovation and growth in the new 	China Association of Communications
http://www.europeandigitalmediaassociation.org/		 media sector Policies to ensure that barriers to pan-European E- commerce are addressed. 	Enterprises
European Satellite Operators' Association	Satellite Communications	 Ensuring that satellites benefit from the 	Beidou satellite navigation
https://www.esoa.net/		appropriate political, industrial and regulatory environment to fulfil their vital role in the delivery of communications	application industry alliances



European industrial association in ICT	Main Subject	Research Subjects/Agenda	Possible Chinese Counterpart
European Semiconductor Industry Association	Semiconductor Industry	Promote the common interests of the Europe-based semiconductor	China Semiconductor Industry Association
http://www.eeca.eu/		industry to ensure a sustainable business environment and foster its global competitiveness.	
European Telecommunications Network Operators Association	Telecommunications networks	 Issue-based. When an issue arises a working group set up to it. Working groups cover topics ranging from Research and 	China Mobile Communications Association
https://www.etno.eu/		Development to various EU policy matters.	
Internet service providers association in the European Union	Internet Service Providers	 Represent the European ISP industry on EU policy and legislative issues. Facilitate the exchange 	No obvious match
http://www.euroispa.org/		of best-practices between national ISP associations. To encourage the development of a free and open telecommunications market.	



25. Conclusions

Key points:

- A Chinese industrial association or other relevant body can be mapped to each of the European Public-Private Partnerships (PPPs) and European Technology Platforms (ETPs) in ICT. In particular, at least one Chinese industrial association or other relevant body that is a Chinese priority for EU-China collaboration in ICT R&D&I can be mapped to each of the PPPs and ETPs. However, some of these associations are somewhat monolithic and the some of the PPPs and ETPs tend to be more focussed.
- The mapping appears to be particularly direct in the areas of High Performance Computing, Robotics, and Satellite Communications. However, the dedicated Chinese industrial association and Chinese standardisation committee in high-performance computing are not Chinese priorities for EU-China collaboration in ICT R&D&I for reasons apparent from information provided on the website of the ETP4HPC ETP. The mapping appears to be least direct in the area of nanoelectronics.
- The ENIAC Joint Undertaking takes European public-private partnerships to the next level. Its goal is to make a recognisable contribution towards a globally successful and sustainable European nanoelectronics industry by supporting R&D activities through open and competitive calls for proposals while ensuring the independent evaluation and selection of proposals, allocation of public funding to selected proposals, and the funding of projects.
- The European industrial associations in ICT are primarily focussed on policy, regulatory, and legislative issues that impact on their industry sector, ICT R&D is not a major focus.

Recommendations:

• The euRobotics AISBL (PPP) and the ISI ETP should be encouraged to begin dialogues with their Chinese counterparts as soon as possible. If one of these can establish meaningful cooperation it could provide a template for the establishment of future cooperation.



- As the Chinese associations at the national level are by their very nature somewhat monolithic they are not ideal for promoting business to business (B2B) innovation initiatives.
- The EU should start now in working on determining through high level policy dialogues how to interface with China in the crucial area of nanoelectronics as this appears to be problematic.
- Dialogues should be encouraged between the ENIAC Joint Undertaking PPP and the Commission focussed on conveying the merits, and exploring the possibilities of, funding calls for EU-China collaborative R&D&I in nanoelectronics.

CHOICE Project Actions to Foster Collaboration:

- 1. The CHOICE project will contact each of the ETPs and PPPs to disseminate the mapping that relates them and to seek to establish if they are already working with Chinese counterparts and document the extent of this cooperation.
- 2. Based on the responses received the feasibility of organising a CHOICE workshop in Europe aimed at fostering dialogues between interested ETPs and PPPs and their Chinese counterparts with a view to promoting EU-China collaboration in ICT R&D&I will be explored.



26. Status report on CHOICE project actions aimed at fostering dialogues between ETPs and PPPs in the area ICT and their Chinese counterparts

The CHOICE project has contacted each of the ETPs and PPPs to disseminate the mapping that relates them and to seek to establish if they are already working with Chinese counterparts as follows.

On 9 January 2015 Dr Itagaki send the following email to the contact persons of each of the ETPs and PPPs in the area of ICT:

-----Original Message-----

From: T. Itagaki [mailto:t.itagaki@brunel.ac.uk]

Sent: 09 January 2015 14:40

Subject: CHOICE Project - Strengthening Chinese collaboration on ICT research with Europe

Dear Sirs,

First of all, let me introduce ourselves, we are co-ordinating an FP7 support action project CHOICE - Strengthening Chinese collaboration on ICT research with Europe (http://euchina-ict.eu/). We organised an event in China in October 2014 that included a very successful EU to Chinese ICT business to business matchmaking session (http://euchina-ict.eu/event-chengdu/).

For the 2nd and last year of the project, we are planning to organise at least two workshops in China, to promote European excellence in ICT R&D&I and encourage a more balanced relationship between the EU and China in collaborative ICT R&D&I. We have done a subject area mapping of ETPs to Chinese industrial associations that are a Chinese national priority for collaboration with the EU. We wish to use this mapping together with information gathered from ETPs to draw up agendas for our workshops that will provide excellent opportunities for dialogue leading to collaboration.

In order to do so, we would be very grateful, if you can provide the following information regarding your ETP and the current and recent projects under your ETP by the end of January 2015:

1) any wish/demand/desire to promote technologies developed within the projects in China.



- 2) any current and previous involvement with Chinese partners (either industry or academic/research institutions) in ICT R&D&I.
- 3) any volunteers who are willing to go to China to attend a CHOICE project workshop to promote, and demonstrate, if desired, the ICT R&D&I of their organisation and participate in an EU to Chinese ICT business to business matchmaking session.

If you reply we will provide you with a brief summary of the responses we obtain and the action take on them unless you request no further communication on this matter.

Yours sincerely,

Dr T Itagaki and Dr T J Owens

Department of Electronic and Computer Engineering College of Engineering, Design and Physical Sciences Brunel University London (UK)

The ENIAC ETP contact person reported that there is no interest in ENIAC in cooperation with China. The Photonic21 contact person distributed the email to the membership but there was no positive response to it. However, a positive response on behalf of the NEM ETP was received:

Dear Dr Itagaki,

Many thanks for your message even I don't know who are the addressees so I copy my answer to people in NEM involved in the Global NEM activity.

NEM is already in relation with the CHOICE project because Sigma Orionis is active in both and because NEM co-organised with NESSi an international cooperation workshop in Barcelona in November where CHOICE was also invited (Francisco ROCHA from SPI - Portugal)

China is clearly in the targeted NEM countries because we know that media&content is becoming more and more important and we think that NEM could help and could learn from them. However, we never found any cluster in China which address NEM sector, it could be a great help from CHOICE to help us to find such an organization.



1/ NEM do not manage any project, NEM is a platform that help people to set up and submit project proposals but the main purpose of NEM is to build a vision and the corresponding Strategic Research Agenda that should influence the future European Work program in the Creative industry and media sector. NEM is also editing a number of position papers which also influence policy and technology strategy development. However, we are interested to share this strategic research agenda with Chinese partners/clusters of organisations in order to check the relevance of these technologies in China market.

2/ Some years ago, there some attempts to involve Chinese partners in NEM but we never succeed as far as no cluster exist. We have 3 members (Academy of Broadcasting Planning, Bejing University of Post and Telecommunications and HUWAEI Technology) from China and obviously we would like to extend this list.

3/ As China is a Global NEL targeted country, we are interested to join any event where we can meet Chinese organization and as already said more than happy to find Media clusters in order to established strong liaisons as we made with Latin America, Mediterranean and EECA. Depending the dates of the event, we should be able to find NEM representatives interested to join including myself.

Kind regards

Pierre-Yves DANET
Orange Labs Research
Head of Cooperative Research - Europe
NEM Vice Chair

To develop this opening into an opportunity for developing dialogue Dr Itagaki immediately replied to the above as follows:

Dear Mr Danet,

Thank you for your prompt reply.

As I have involved with the EU Projects related with NEM in the



past, such as DTV4ALL, INSTINCT, SAVANT, CISMUNDUS, SAMBITS and PARTAKE, and also participated Mr Torrenti's EU-China meetings in Beijing, I am aware of your activities. So as the co-ordinator, Dr Owens, has done with INSTINCT and PARTAKE Projects, as the co-ordinator. In particular, PARTAKE Project was meant for encouraging Chinese participation, resulting BUPT's involvement in some later projects.

As for the Chinese side of the cluster(s), there are some relevant organisations in China, such as China Association of Communications Enterprises, China Communications Standards Association and China Mobile Communications Association. Please see our Deliverable 2.1 (http://euchina-ict.eu/wp-content/uploads/2014/09/CHOICE WP2 TORCH D21.pdf)

on this issue. Other deliverables and reports are available on http://euchina-ict.eu/deliverables-and-reports/

We will contact you once our workshop theme and dates are finalised.

However, if there is a specific technology or issue the NEM ETP wish to demonstrate in or collaborate with China, please let us know.

regards,

T. Itagaki

There was a prompt and very positive response to the above email that is currently being followed up on:

Dear Dr Itagaki,

Fine and thanks for the cluster information, there should be a good opportunity to meet them. From the technology point of view, we are currently working on a PPP on Immersive and Interactive content, it could be a good opportunity to check interest of Chinese on such a concept.

Let us know as soon as possible the dates of the event so we can be able to organize ourselves in the best way



Kind regards

PY DANET

CATR and TORCH were contacted to establish if there is interest on the Chinese side in participating in some way in the development of a PPP on Immersive and Interactive Content. CATR came back with a positive response on 28 January 2015:

Dear Tom,

The Interactive Media Industry Alliance in China http://www.im-ia.org/page/English/index.php?0.html, is interested in EU-China operation, I have put Mr. Kun YANG, the vice-General secretory of the alliance in CC, he can be the contact person.

Best Regards

Shirley

Dr Itagaki is currently exploring the interest in an EU-China workshop around the development of a PPP in Immersive and Interactive content with his contacts among commercial and public broadcasters.