

**H2020 FRAMEWORK PROGRAMME  
H2020-DS-SC7-2016 DS-05-2016  
EU Cooperation and International Dialogues in Cybersecurity and  
Privacy Research and Innovation**



**A resume of the preliminary version of the Cybersecurity  
Research Analysis Report for the two regions:  
Industry and Standardization Aspects**

This document includes an evaluation of the numerous industry association and clusters operating in EU, Japanese or member state level.

**Methodology** This report is based on an analysis of the Strategic Research and Innovation Agendas (SRIA) of industrial associations and technology associations, as well as reports from ENISA, to understand the efforts and measures undertaken and challenges identified by the European Industry when it comes to cybersecurity. The analyzed initiatives have been chosen considering several criteria: scope of action (cross-cutting technologies and vertical markets), impact and activity level. Several of these organizations were established to manage different contractual public-private partnerships (cPPP) on different topics. A cPPP is an instrument co-funded by the European Union for research and innovation activities in crucial sectors of Europe’s economy, bringing together companies, universities, research laboratories, SMEs and other organizations. These cPPPs develop strategic research and innovation agendas where the R&I priorities and challenges of the industry are structured and defined. Figure 2 contains the industry associations related with the ICT sector that have among others, a strong focus on research and are being considered in this study. The main priorities of these organizations are summarized in Figure 1.

Summary of horizontal association interests

- ECSSO
  - Data security and Privacy technologies
  - Distributed identity and Trust Management
  - User centric Security and Privacy
  - ICT Infrastructure Protection
  - Quantum-resistant Cryptography
  - Trusted Supply Chain
  - Security and Privacy by design
- BDVA
  - Privacy-aware Big data Analytics
  - Threat intelligence
  - Assurance in gaining trust
  - Protection of Data algorithms
  - Homomorphic Encryption
- NESSI
  - Data Everywhere
  - Dynamic policies and behavior
  - Built-in protection of assets and actors
  - Regulation in societies of services
- ECSEL
  - Security & Privacy by design
  - – Fully Homomorphic Encryption
  - – Cryptography
  - – Identity and access management
  - – Data Protection
  - – Safety and Security Patterns
  - – Trusted devices identities

Summary of vertical industries interests

- Internet of Things
  - Hardware and Software Security
  - Trust and Integrity Management
  - Cryptography
  - Data Protection and Compliance
  - Authentication
  - Monitoring and Auditing
- Communication Infrastructures
  - Trusted 5G Architecture
  - Multi-Domain and Multi-Layer Security
  - Security as a service
- Security
  - Policy and EU Policy Regulation Harmonization
- Transport and Mobility
  - Blockchain technologies for security
  - Privacy
  - eCall
  - Risk Management
  - Reliability and Security
  - Standardization
- Manufacturing
  - Security and Privacy Frameworks
  - Trust Management
  - Cryptography
  - Machine learning
  - Critical data management
  - Data exchange and trade
- Health
  - Privacy and Security
  - Security Risk management
  - Trustworthy EHR system solutions

Acronym	Name	Main Industry
ECSO	European Cyber Security Organization	Cybersecurity Service and product providers, operators of essential services (energy, telecom, finance)
BDVA	Big Data Value Association	Service operators, data management industry, technology providers, cybersecurity product providers
NESSI	Networked Software and Services Initiative	Software, Services & Data
ECSEL (incl. Artemis)	Electronic Components and Systems for European Leadership	Smart Mobility, Smart Society, Smart Energy, Smart Health, Smart Production, Design Technology, Cyber-Physical Systems, Smart Systems, Safety and Security

  

Vertical sector	Industrial Associations and Organizations studied
Internet of Things (IoT)	Alliance for Internet of Things Innovation (AIOTT), ENISA reports
Communication Infrastructures	5G Infrastructure Public Private Partnership (5G-PPP), European Telecommunication Network operators Association (ETNO)
Security	Security European Organization for Security (EOS)
Transport and mobility	ERTICO, European Road Transport Research Advisory Council (ERTRAC)
Manufacturing	European Factories of the Future Research Association (EFFRA)
Health	European Federation for Medical Informatics (EFMI), MedTech Europe Association

Figure 2. European technology associations and vertical sectors studied

**Associations and clusters in Japan** The key industry associations related with the ICT sector that can give a potential impact on the cybersecurity market in Japan, are listed in table 1.

#### Society 5.0: National strategic effort in Japan

Society 5.0 was proposed in the 5th Science and Technology Basic Plan as future society that Japan should aspire to: “a human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space.” The term was introduced to inform broadest stakeholders about the industrial evolution (Society 1.0, 2.0 etc.<sup>1</sup>), but has also been supported by industries and governmental agencies.

The EUNITY deliverable D3.1 also reports the association and initiatives at all member states levels.

Acronym	Name	Main Industry
Keidanren	Japan Business Federation	All industries
JNSA	Japan Network Security Association	Network Security
VLED	Vitalizing Local Economy Organization by	Open Data & Big Data Open Data & Big Data
5GMF	Fifth Generation Mobile Communication Promotion Forum	5G
IoTAC	IoT Acceleration Consortium	IoT

Table 1

Country	Acronym	Name	Main Industry
Associations and initiatives in Spain	AEI ciberseguridad	The Spanish Cybersecurity Innovation Cluster	Cybersecurity
	INCIBE	Instituto Nacional de Ciberseguridad de España	Cybersecurity
	SMS Forum Spain	Association Española para el Fomento de la Seguridad de la Información	Information Security
	CCI	Centro de Ciberseguridad Industrial	Cybersecurity

<sup>1</sup> Cabinet Office, Society 5.0. [Online] Available at: [http://www8.cao.go.jp/cstp/english/society5\\_0/index.html](http://www8.cao.go.jp/cstp/english/society5_0/index.html)

Associations and initiatives in France	Systematic	Systematic Paris Region Digital Ecosystem	Multiple Sectors
	FIC	The FIC Observatoire	Cybersecurity
	ALLISTENE	L'alliance des sciences et technologies du numérique	ICT
Associations and initiatives in Poland	CSF	Fundacja Bezpieczna Cyberprzestrzeń / Cybersecurity Foundation	Cybersecurity
	-	Mazowiecki Klaster ICT	ICT
Associations and initiatives in Greece	GCC	Greek Cybercrime Center	Cybersecurity
Associations and initiatives in Belgium	CSC	Cyber Security Coalition	Cybersecurity
	BELTUG	Beltug	Digital technology

**Common Topics of Interest** The common topics of interest between EU and Japan, according to this analysis, include areas like 5G and big data for the industry while the common research interest include privacy of big data, availability and reliability of open data, security of 5G, communication networks and protocols, cryptography and regulatory aspects of cybersecurity to enable new applications and technology developments.