



Info Day 2017 – SC7 Secure Societies
06-07/03/2017

H2020 WP 2017 - Cybersecurity PPP topics

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Cyberspace: a backbone of digital society & economic growth

315 million Europeans use the Internet everyday



across all areas of the digital society



ehealth



e-commerce



smart mobility



energy
(e.g. smart grids)



finance
(e.g. e-banking)



Internet of Things

**Cybersecurity incidents are
increasing at an alarming pace
with potentially profound effect on daily
functioning of society & economy,
both online and offline**

Cybersecurity incidents may

disrupt the supply of essential services such as



water, healthcare, electricity or mobile services

Undermine trust in digital services & products

only 22% of Europeans



have **full trust** in companies
such as **search engines, social
networking sites & e-mail services**

Only 38% of Europeans feel



confident about
online purchasing
from **another EU Member State**

...as well as financial theft, loss of intellectual property, data breaches, etc.



Key EU Objectives and Actions

Increase
capabilities
& cooperation

NIS Directive - NIS
platform - ENISA - CEF

Strengthen EU
Cybersecurity
industry

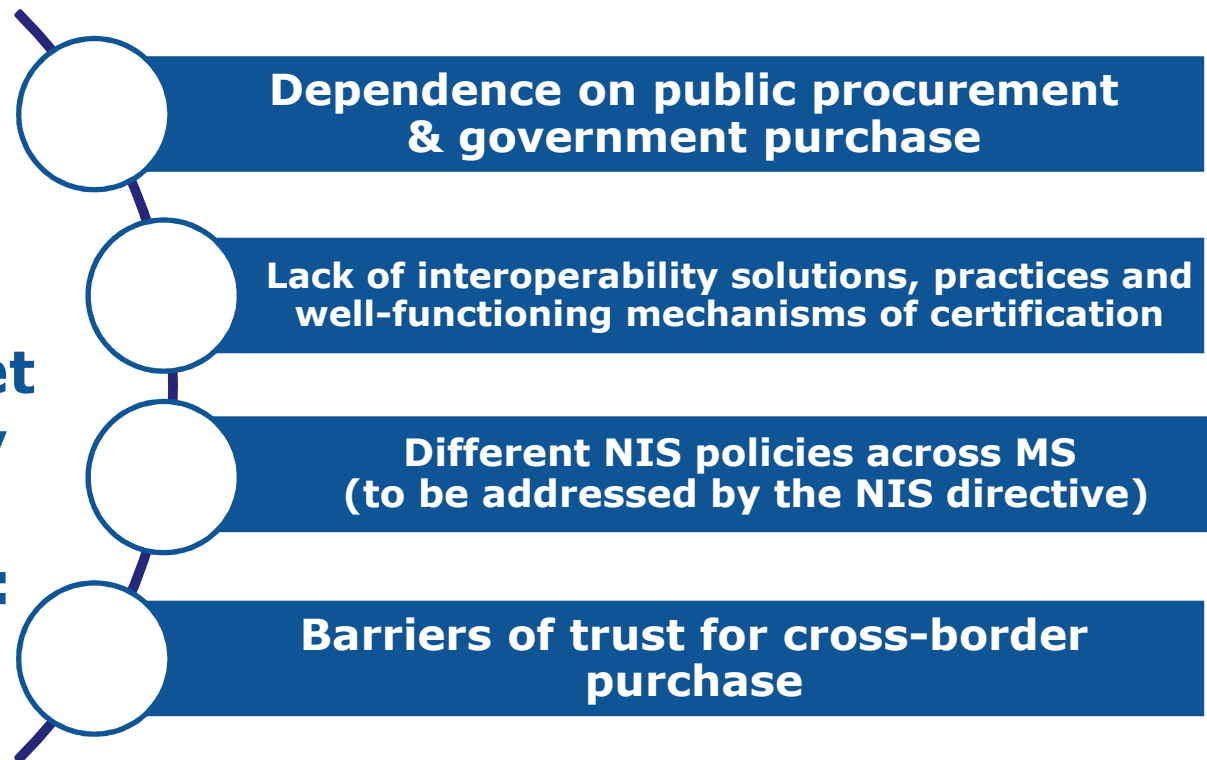
Strengthening industrial
capabilities - cPPP - 450M in H2020

Mainstream
cybersecurity
in EU policy

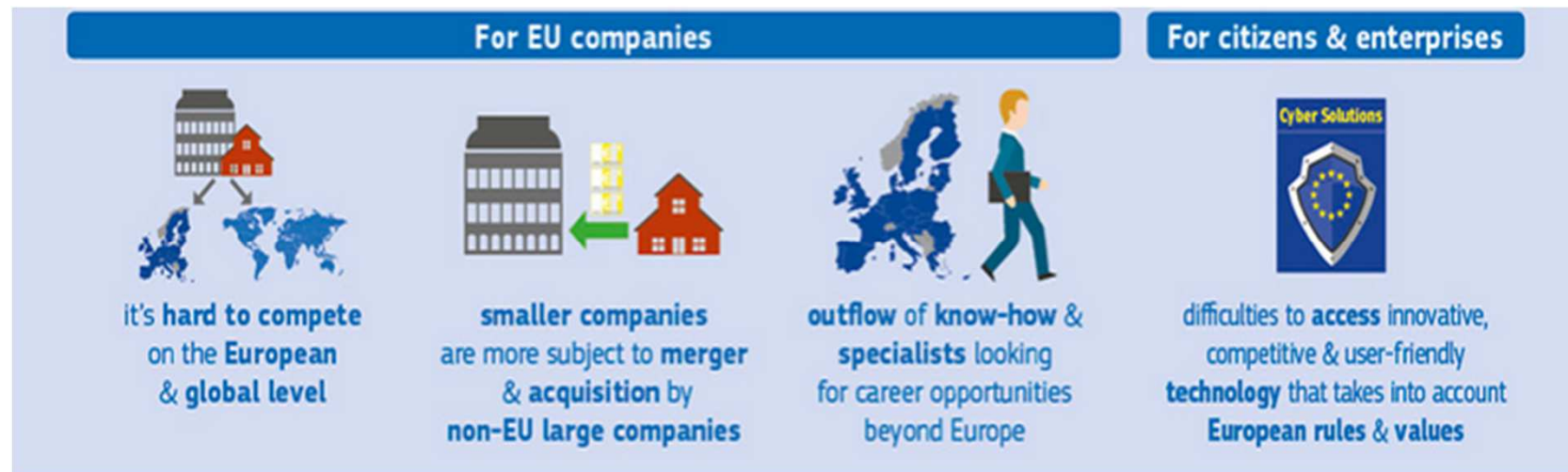
Cooperation on new policy
initiatives - Sectorial cybersecurity
strategies

Cyberspace is borderless by nature...

unlike
**heavily
fragmented**
European market
for ICT security
products &
services due to:



What does this mean in practice?



The survival of strong European cybersecurity industry all together is at stake!

Cybersecurity is also an opportunity!



The **global cyber security market** is expected to be among the **fastest growing** segments of the ICT sector in the coming decade. It is expected to **grow to \$80-120 billion** by 2018.

Cybersecurity contractual Public-Private Partnership (cPPP)



- Stimulate the **competitiveness and innovation** capacities of the digital security and privacy industry in Europe
- Ensure a sustained **supply of innovative cybersecurity products and services** in Europe

Objectives of the cPPP

Gather industrial and public resources to deliver innovation against a jointly-agreed strategic research and innovation roadmap.

Maximize available funds through better coordination with MS.

Focus on a few technical priorities defined jointly with industry.

Seek synergies to develop common, sector-neutral technological building blocks with maximum replication potential

Obtain economies of scale through engagement with users/demand side industries and bringing together a critical mass of innovation capacities.

Be a platform to discuss other supporting measures for the industry

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020



- **H2020 = legal framework** for the establishment of the cPPP
- **H2020 LEIT-ICT** to focus on technology-driven digital security building blocks and horizontal requirements
- **H2020 Societal Challenge 'Secure Societies'** to deliver societal benefits for users of technologies (citizens, SMEs, critical infrastructures...).
- **H2020 public funds to be matched by private sector investment**



Call – Digital Security Focus Area – Topics

- DS-06-2017: Cybersecurity PPP: **Cryptography**
- DS-07-2017: Cybersecurity PPP: **Addressing Advanced Cyber Security Threats and Threat Actors**
- DS-08-2017: Cybersecurity PPP: **Privacy, Data Protection, Digital Identities**





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DS-06-2017: Cybersecurity PPP: Cryptography





DS-06-2017: Cryptography (RIA)

- *In line with technological developments and emerging threats, the improvement of performance and efficiency of cryptographic solutions is a persistent need across ICT.*

- **Nine thematic research challenges, including:**
 - Ultra-lightweight
 - High speed
 - Implementation
 - Authenticated encrypted tokens

- **Increase trust in ICT and online services**

- **Protect the European Fundamental Rights of Privacy, Data Protection**





DS-07-2017: Addressing Advanced Cyber Security Threats and Threat Actors





DS-07-2017: Addressing Advanced Cyber Security Threats and Threat Actors

- **Situational Awareness (RIA);**
 - Detect and quickly and effectively respond to sophisticated cyber-attacks;
 - Interdisciplinary research to counter threat actors and their methods;
 - Assess and address the impact to fundamental rights, data protection and privacy in particular;
- **Simulation Environments, Training (IA);**
 - Prepare those tasked with defending high-risk organisations;
 - Realistic environments; Tools for producing both benign and malicious system events;
 - May also address crisis management and decision making processes in relation to obligations stemming from applicable legal frameworks





CHARTER OF FUNDAMENTAL RIGHTS OF THE EUROPEAN UNION

TITLE II – FREEDOMS

Article 6

Right to liberty and security

Everyone has the right to liberty and security of person.

Article 7

Respect for private and family life

Everyone has the right to respect for his or her private and family life, home and communications.

Article 8

Protection of personal data

1. Everyone has the right to the protection of personal data concerning him or her.
2. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law. Everyone has the right of access to data which has been collected concerning him or her, and the right to have it rectified.
3. Compliance with these rules shall be subject to control by an independent authority.

**DS-08-2017: Privacy,
Data Protection,
Digital Identities**



DS-08-2017: Privacy, Data Protection, Digital Identities (IA)

- Privacy-enhancing Technologies (PET)
- General Data Protection Regulation in practice
- Secure digital identities
- Support for Fundamental Rights in Digital Society.
- Increased Trust and Confidence in the Digital Single Market
- Increase in the use of privacy-by-design principles in ICT systems and services





Call - DS – 2017 - Planning

Two separate opening dates - deadlines for submission

Topic(s)	DS-06-2017	DS-07-2017 DS-08-2017
Opening	08 Dec 2016	01 Mar 2017
Deadline	25 Apr 2017	24 Aug 2017

Topic	Instr.	Funding (M)
DS-06-2016	RIA	20.50
DS-07-2016	RIA	10.0
	IA	8.0
DS-08-2016	IA	17.6



Call – SMEInstr – Topic & Planning

- **SMEInst-13-2016-2017:** Engaging SMEs in security research and development.
- **Topic:** "[...] cover any aspect of the Specific Programme for "secure societies - protecting freedom and security of Europe and its citizens" (Horizon 2020 Framework programme and Specific programme):"
 - 7.1. *Fighting crime, illegal trafficking and terrorism, ...*
 - ...
 - **7.4. Improving cyber security**
 - 7.5. *Increasing Europe's resilience to crises and disasters*
 - **7.6. Ensuring privacy and freedom, including in the Internet, and enhancing the societal legal and ethical understanding of all areas of security, risk and management**
 - ...
- **Funding:** Approximately 21.5M in 2016 and 19M in 2017
- **Logistics** and more information on SME Instrument:
<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/sme-instrument>





Further references and help

Work programme 2016-2017 part:

Secure societies – Protecting freedom and security of Europe and its citizens

<http://europa.eu/!BG38Bf>

National Contact Points (NCPs)

<http://europa.eu/!up97Wv>

- Guidance on choosing relevant H2020 topics and types of action
- Advice on administrative procedures and contractual issues
- Training and assistance on proposal writing
- Distribution of documentation (forms, guidelines, manuals etc.)
- Assistance in partner search

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