



Shaping the Cyber Security R&D Agenda in Europe, Horizon 2020

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Introduction

The context: A few words on Horizon 2020

Drivers, Challenges & Opportunities

Next steps





Introduction

As of 1st July 2012,
the Digital Agenda of the EU is managed by the European Commission
Directorate General for Communications Networks, Content and Technology.
"But you can call us DG Connect".

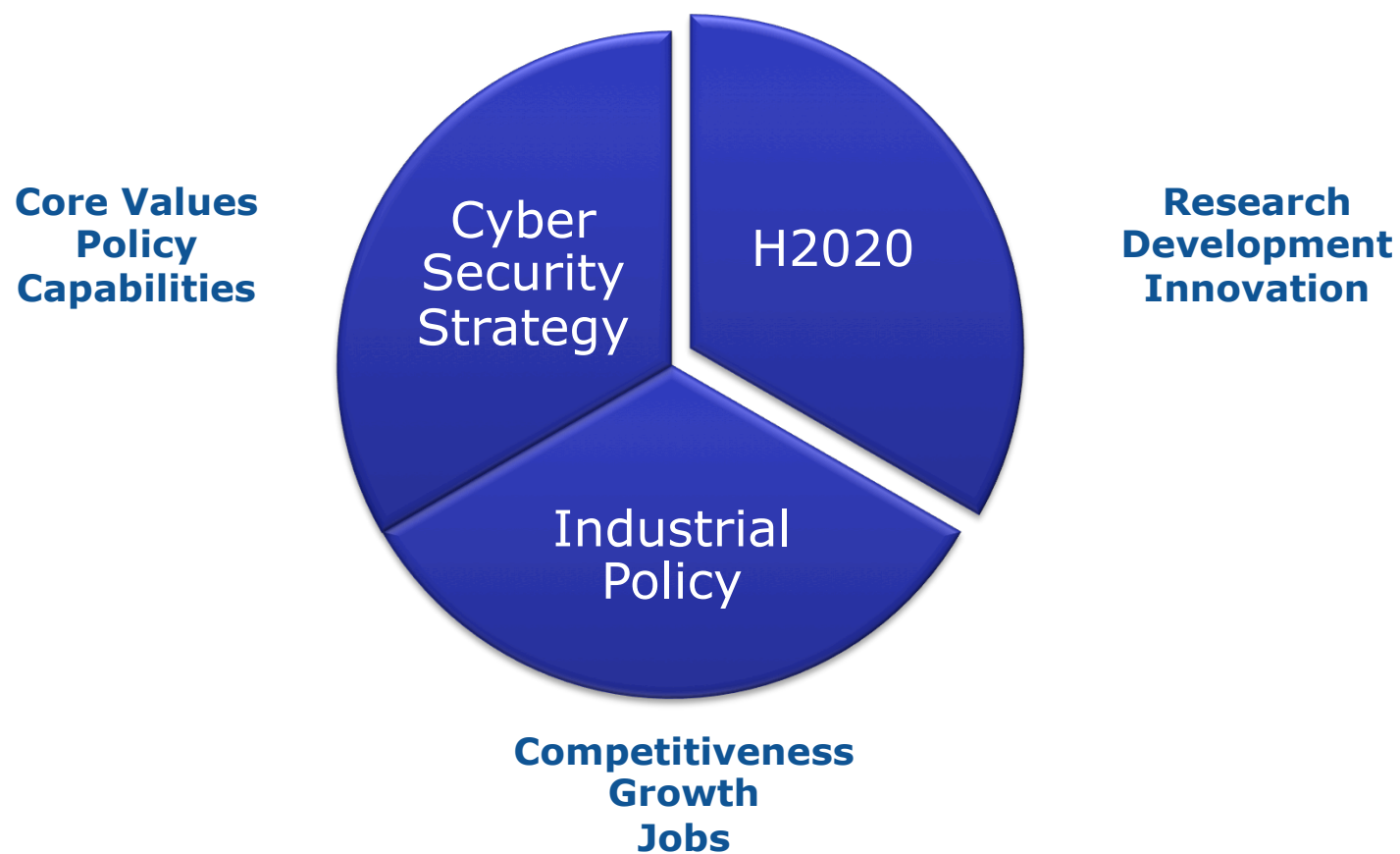
DG CNECT:\ Dir H Sustainable & Secure Society\ Unit H4 Trust & Security>_

- > Fusion of policy & research
- > European Cyber Security Strategy
- > (proposal for a) Network Information Security (NIS) Directive
- > e-privacy Directive
- > Research: FP7, CIP ...H2020





The Context: Horizon 2020





The Context: Horizon 2020

A single programme for Research and Innovation.

Coupling research to innovation – from research to market.

Focus on societal challenges facing EU society, e.g. health, clean energy, security.

Simplified access, for all companies, universities, institutes in all EU countries and beyond.

Three pillars

- > Excellence in Science
- > Leadership in Enabling Industrial Technologies
- > Societal Challenges

Adoption by European Parliament and Council planned for 2014.





Cyber Security in H2020

Leadership in Enabling Industrial Technologies

- > Strategic investments in key technologies
- > Technologically driven R&D agenda

Key areas: *security by design, crypto, IoT, cloud...*

Societal Challenges

- > Concerns of citizens and society
- > EU policy objectives cannot be achieved without innovation
- > Promising solutions need to be tested, demonstrated and scaled up

Societal Challenges Chapter 7: Secure Societies

7.4 Providing Cyber Security

7.5 Privacy and Freedom in the Internet





Drivers

EC policy initiatives

Innovation

Continuation of key research themes from FP7

Stakeholders





Drivers: EC policy initiatives

Overarching

- > Europe 2020
- > Digital Agenda
- > Innovation Union

Direct link

- > Cyber security strategy & NIS Directive
- > Data Protection & e-Privacy
- > *Secure ICT industrial policy**

Consideration

- > European Cloud Computing Strategy
- > Electronic identification and trust services for electronic transactions (eIDAS)
- > Critical Infrastructure Protection
- > ...





Drivers: Innovation

Innovation is key

- > Competitiveness of European Industry
- > Focus on impact
- > Push through the "valley of death"
- > Response to the economic crisis

Dedicated Toolset

- > Demonstrators
- > Large scale pilots
- > PCP (pre-commercial procurement) & PPI (public procurement of innovation)





Drivers: Stakeholders

NIS Platform

- > Launched 17th June 2013
- > Public Private Platform
- > Three initial Working Groups
- > Working Group '3' dedicated to Research and Innovation
- > "single point of entry" for input from academia, industry and MS
- > More practical information to follow

ENISA

Joint Research Centre, DG Enterprise, DG Home, DG Move, EDA...

CONNECT Advisory Forum





Challenges & Opportunities

What is Cyber Security?

One recent attempt to define Cyber Security:

ISO/IEC 27032 - Guidelines for Cybersecurity

*Cyberspace, while not existing in any physical form, is a complex environment resulting from the **interaction of people, software and services on the Internet** by means of technology devices and networks connected to it. This complex environment is built on interconnecting **networks and systems**, as well as **any ICT devices**, belonging to different organisations and service providers that allow for the flow of information.*

However, there are security issues that are not covered by current information security, Internet security, network security and ICT security best practices because of gaps between these domains.

Cyberspace security, or Cybersecurity, is about the security of the Cyberspace.





Challenges & Opportunities

- > Focus on innovation and applied research vs. long term fundamental problems
- > Short to mid-term planning for R&D priorities
- > Horizontal vs. Vertical approach
- > Convergence & synergies between new constituencies e.g. Security, Cyber Crime, Defence.
- > On-going discussions on the Multiannual Financial Framework
- > Adhering to the principle: *"secure ICT Industry, not only ICT Security industry"*





Next steps

H2020 WP 2014-2015 unveiling in December 2013

First H2020 call in Q1 2014

NIS Platform R&D Working Group (~September 2013)





Thank you

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<https://ec.europa.eu/digital-agenda/en/telecoms-and-internet/trust-security>

