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Cybersecurity in Horizon 2020
Cyber Security Nordic 19
Messukeskus
2 Oct 2019

LIVE
breakyourownnews.com
BREAKING NEWS
MOOMINTROLL'S IPHONE HACKED
11:08
LITTLE MY "DENIES" | SNUFKIN SUMMONS EXPERTS FOR A BRIEF @ 4PM (SUOMI 207)
tsy Animations
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WHAT & WHO?

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What Money 4 Which Purpose?

	Finland	EU
R&D&I	Business Finland	Horizon 2020
Working Capital	Finnvera	EIB
Investments	Finnvera	EIB
Transactions	Finnvera	EIB

Structure of €77B Horizon 2020 (2014-2020)

I Excellent Science

1. European Research Council (ERC): frontier research
2. Future and Emerging Technologies (FET).
   a) Open
   b) Proactive
   c) Flagships
3. Marie Skłodowska-Curie (MSCA) – actions:
   training, career development and mobility for researchers
4. Research Infrastructures

II Industrial Leadership

1. Leadership in Enabling and Industrial Technologies
   - 1.1. ICT
   - 1.2. nanotechnology
   - 1.3. materials
   - 1.4. biotechnology
   - 1.5. manufacturing and processing
   - 1.6. space
2. Risk finance:
   loans & equity funding
3. Innovation in SMEs

20% of the budget or pillars II + III to SMEs
- SME Instrument(1/3)
- Collaborative projects (2/3)

III Societal Challenges

1. Health, demographic change and wellbeing
2. Food security, sustainable agriculture and forestry, marine, maritime and inland water research and bioeconomy
3. Secure, clean and efficient energy
4. Smart, green and integrtaed transport
5. Climate action, resource efficiency and raw materials
6. Europe in a changing world: inclusive, innovative and reflective societies
7. Secure societies – protecting freedom and security of Europe and its citizens

Also: European institute of innovation and technology, Science with and for society, Spreading excellence and widening participation

IV Joint Research Center JRC, excl. nuclear

Nuclear research: EURATOM

HORISONTTI 2020
EU:n tutkimus- ja innovaatio-ohjelmat

SC7/CYBERSECURITY IN HORIZON (2020)

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AI & Security (BDG €20M)

- ✓SU-AI01-2020: Developing a research roadmap regarding Artificial Intelligence in support of Law Enforcement
- ✓SU-AI02-2020: Secure and resilient Artificial Intelligence technologies, tools and solutions in support of Law Enforcement and citizen protection, cybersecurity operations and prevention and protection against adversarial Artificial Intelligence
- ✓SU-AI03-2020: Human factors, and ethical, societal, legal and organisational aspects of using Artificial Intelligence in support of Law Enforcement

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Digital Security (BDG €69M)

- ✓SU-DS02-2020: Intelligent security and privacy management
- ✓SU-DS03-2019-2020: Digital Security and privacy for citizens and Small and Medium Enterprises and Micro Enterprises
- ✓SU-DS04-2018-2020: Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches

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CYBERSECURITY PILOTS
SU-ICT-03-2018

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SU-ICT-03-2018: General

- ✓*Establishing and operating a pilot for a Cybersecurity Competence Network to develop and implement a common Cybersecurity Research & Innovation Roadmap.*
- ✓Research and Innovation Action, EUR 16M, 100 % funding.
- ✓The consortium in a proposal must involve at least 20 partners.
- ✓A proposal should also include industrial partners from various (not less than 3) sectors (e.g. telecom, finance, transport, eGovernment, health, space, defence, manufacturing) that will be involved in the demonstration cases.

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SU-ICT-03-2018: Challenge

There is an urgent need to step up investment in technological advancements that could make the EU's DSM more cybersecure and to overcome the fragmentation of EU research capacities. Europe has to master the relevant cybersecurity technologies from secure components to trustworthy interconnected IoT ecosystems and to self-healing software.

Note: ECSO cPPP was established in 2016 to trigger EUR 1.8B of investments.

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SU-ICT-03-2018: Scope (1)

- ✓Common **research, development and innovation** in next generation industrial and civilian cybersecurity technologies (incl. dual-use), applications and services; focus should be on horizontal cybersecurity technologies as well as on cybersecurity in critical sectors;
- ✓Strengthening cybersecurity **capacities** across the EU and closing the cyber skills gap;
- ✓Supporting **certification** authorities with testing and validation labs equipped with state of the art technologies and expertise.

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SU-ICT-03-2018: Scope (2)

Projects should also include industrial partners and their cybersecurity research collaborators to create synergies and:

(a) collaboratively **identify and analyse scalable** (short/mid/long term) cybersecurity **industrial challenges** in the selected sectors;

(b) **demonstrate** their ability to collaborate in developing appropriate solutions to solve critical challenges through (not less than four) research and innovation demonstration cases. These **demonstration cases** will constitute the core part of the work to be done within the project.

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4 WINNING CONSORTIA
SU-ICT-03-2018

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Cybersecurity

Horizon 2020 pilot projects

to prepare a European Cybersecurity Competence Network
& contribute to the European cybersecurity industrial strategy

More than **€63.5 million** invested in **4 projects**

CONCORDIA

Cyber security cOmpetenCe fOr Research anD InnovAtion

- Partners: **46**
- EU Member States involved: **14**

Key words
- SME & startup ecosystem
- Ecosystem for education
- Socio-economic aspects of security
- Virtual labs and services
- Threat Intelligence for Europe
- DDoS Clearing House for Europe
- AI for cybersecurity
- Post-Quantum cryptography

Cyber Security for Europe

- Partners: **43**
- EU Member States involved: **20**

Key words
- Cybersecurity for citizens
- Application cases
- Research Governance
- Cyber Range
- Cybersecurity certification
- Training in security

ECHO

- Partners: **30**
- EU Member States involved: **15**

Key words
- Network of Cybersecurity centres
- Cyber Range
- Cybersecurity demonstration cases
- Cyber-skills Framework
- Cybersecurity certification
- Cybersecurity early warning

SPARTA

- Partners: **44**
- EU Member States involved: **14**

Key words
- Research Governance
- Cybersecurity skills
- Cybersecurity certification
- Community engagement
- International cooperation
- Strategic Autonomy

Last updated 8 March 2019

More than **160 partners** from **26 EU Member States**

55 Partners:

- 27 Academia
- 28 Industry and Organisations

- 16 Millions EC funding for 4 years
- 7 Millions additional funding from national authorities and industry

Who Are CyberSec4Europe?

Centres of Excellence / Universities / Research Centres / SMEs

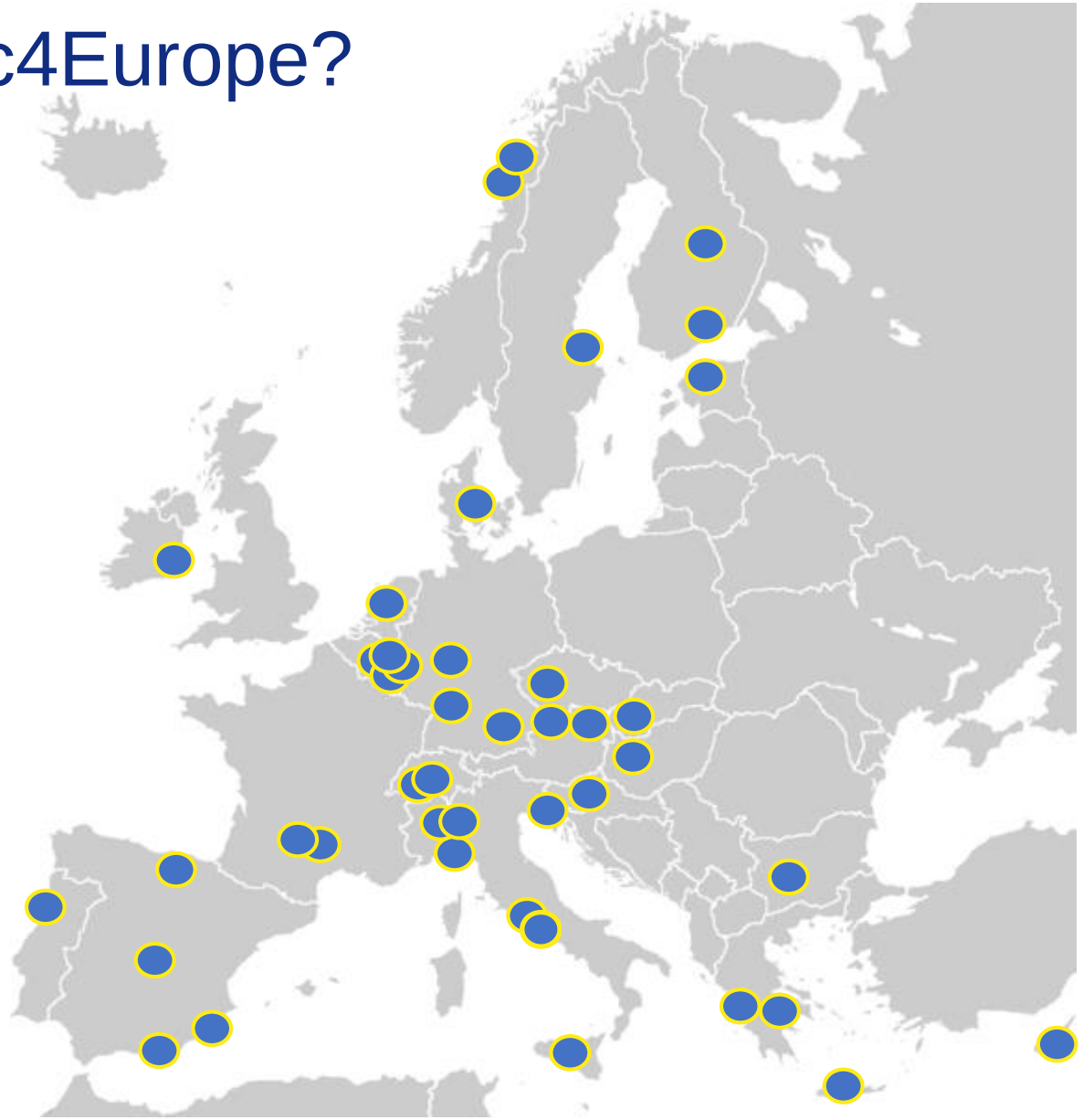
43 partners in 22 countries

26 ECSO members involved in 6 ECSO Working Groups

Existing networks (ECSO, TDL, EOS, CEPIS)

Experience from over 100 cybersecurity projects in 14 key cyber domains

11 technology/ application elements and coverage of nine vertical sectors



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PARTNERS

acea

AGH

AON
Empower Results

BU
Bournemouth University

iti
Information Technologies Institute

certSIGN

CRM
CONSORZIO ITALIANO PER LA RICERCA IN MEDICINA

ENQUIRYA

ESI
European Software Institute
Center Eastern Europe

expriVia
future. perfect. simple.

FINCANTIERI

guardtime

IICT
INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

XAI

LAUREA
Yhdessä enemmän

LINK University
CAMPUS

NAVAL
GROUP

Maynooth University
National University of Ireland Maynooth

RHEA

SIVECO
ROMANIA SA
Software that matters

EMC
Health Services Management Training Centre

telelink
BUSINESS SERVICES

Telefonica

TAL TECH

VITROCISET
Belgium

VISI•NSPACE

Zanasi & Partners
Security Research and Advisory

VITROCISET

A STRONG BASIS OF EXCELLENCE

44 partners spanning academia, industry, institutions, grassroots

Pragmatically anchored in member states

STRATEGIC PROGRAMS

Multilevel supervision

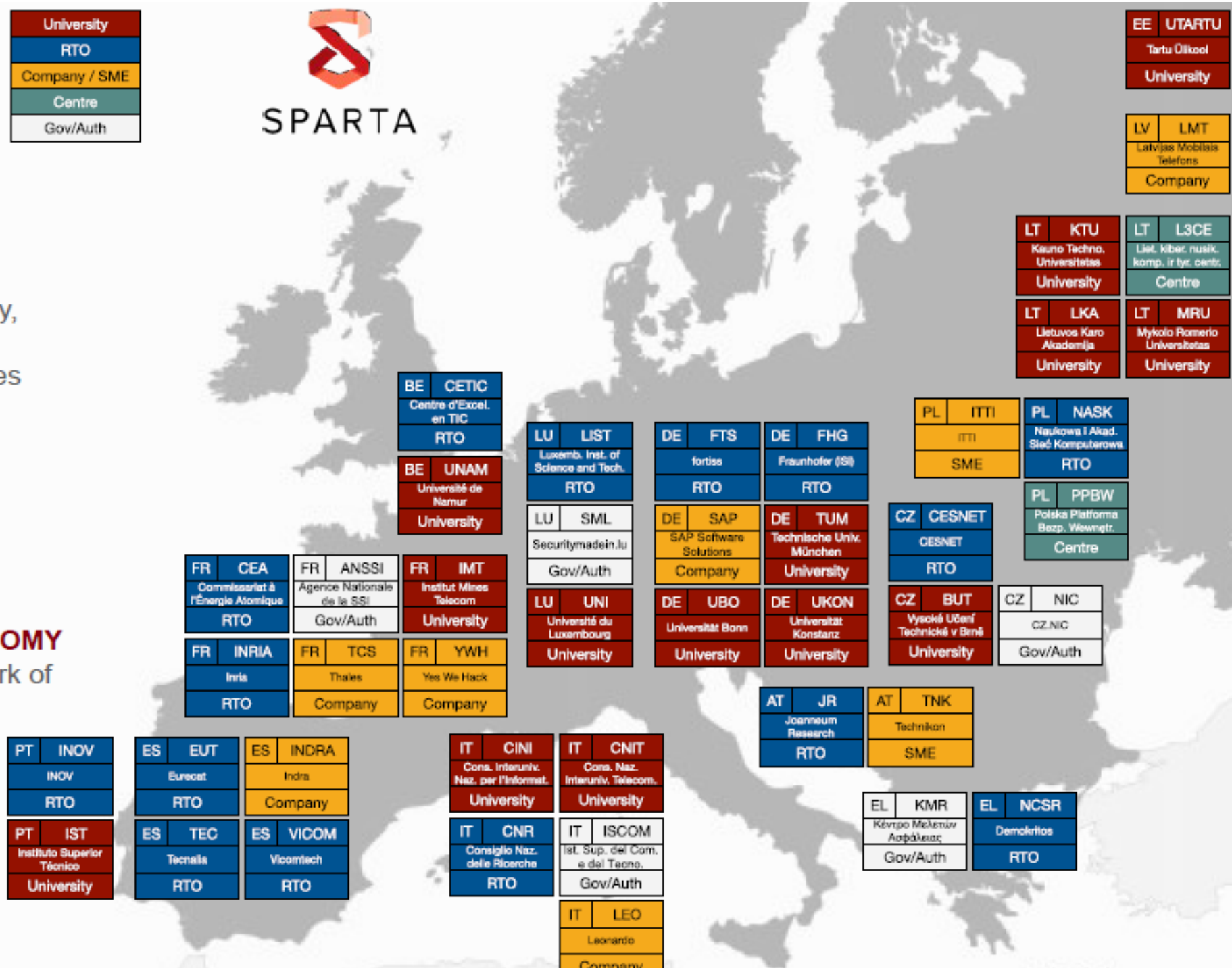
Continuous and flexible evaluation

Trustworthy intelligent infrastructures

Fair and secure AIs

THE STAKES OF EUROPEAN AUTONOMY

Design a long-term roadmap and network of competence centers



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APPENDIX
KEY EVENTS & INFO 2H/2019

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Key ICT Event Dates [Finnish Presidency]

EUROPEAN BIG DATA VALUE FORUM 2019 (14 – 16 Oct)

The European Big Data Value Forum is a key European event for industry professionals, business developers, researchers, and policy makers to discuss the challenges and opportunities of the European data economy and data-driven innovation in Europe. About 700 attendees expected, event is coordinated by VTT.

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Key ICT Event Dates [Finnish Presidency]

SECURITY RESEARCH EVENT 2019 (6 – 7 Nov)

SRE 2018 will gather 800 participants representing a wide range of security stakeholders: researchers, industry representatives, public security providers and practitioners (for example fire departments, police forces and border guard and law enforcement agencies), as well as policymakers.

SET-Plan (14 – 15 Nov)

SET Plan conference 14. – 15.11.2019 targets to energy sector for about 500 participants.

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Key ICT Event Dates [Finnish Presidency]

EFECS - European Forum for Electronic Components and Systems (19 – 21 Nov)

EFECS 19. – 21.11.2019 is the international forum with a focus on 'Our Digital Future' along the Electronic Components and Systems value chain in Europe. The organizers of the event include ECSEL Joint Undertaking and the European Commission, in association with EUREKA. Around 700 participants are expected.

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What Else to Do?

- ✓Attend: Business Finland | Horizon 2020/SC7 –webinar on 8 Oct 2019 (held in Finnish)
- ✓Join: Business Finland | Horizon 2020 Group in LinkedIn
- ✓Subscribe: Business Finland | Newsletter
- ✓Visit: Business Finland | Digital Trust Finland Program
- ✓Check: Finnish Horizon 2020 Contacts & Organizations
- ✓Explore: Finnish Information Security Cluster - FISC ry

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WORLD **IDEAS**

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