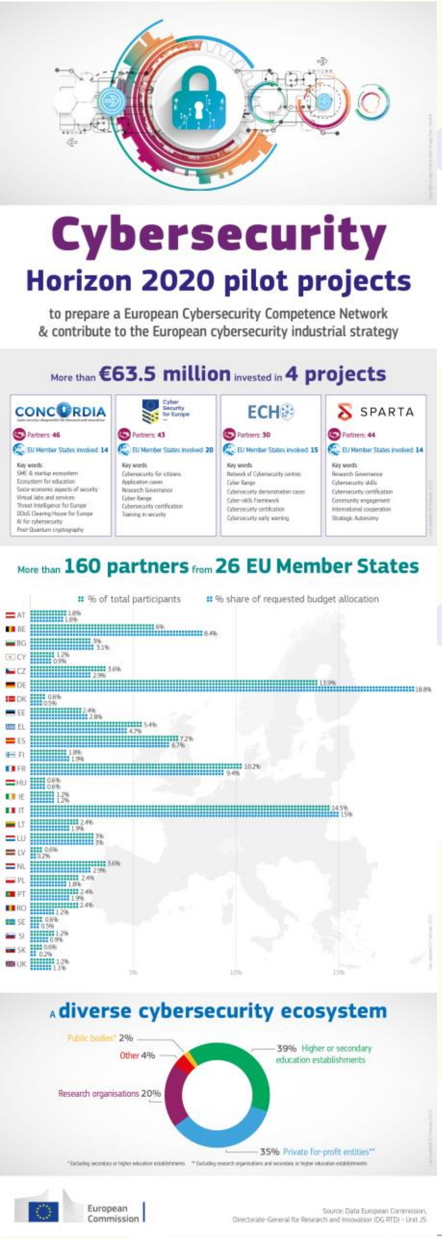
Cyber
Competence
Network

The Cyber Competence Network: The Four Pilots

Working Together Towards A Common Objective

Cyber Competence Network



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 for Europe	ECHO	SPARTA
Partners: 46	Partners: 43	Partners: 30	Partners: 44
EU Member States involved: 14	EU Member States involved: 20	EU Member States involved: 15	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	Key words Cybersecurity for citizens Application cases Research Governance Cyber Range Cybersecurity certification Training in security	Key words Network of Cybersecurity centres Cyber Range Cybersecurity demonstration cases Cyber-skills Framework Cybersecurity certification Cybersecurity early warning	Key words Research Governance Cybersecurity skills Cybersecurity certification Community engagement International cooperation Strategic Autonomy

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

A **diverse cybersecurity ecosystem**

Public bodies* 2%
Other 4%
Research organisations 20%
39% Higher or secondary education establishments
35% Private for-profit entities**

* Excluding secondary or higher education establishments ** Excluding research organisations and secondary or higher education establishments

European Commission

Source: Data European Commission, Directorate-General for Research and Innovation (DG RTD) - Unit J5

ECHO

CONCORDIA
Cyber security cOmpeteNCe fOr Research anD InnovAtion

SPARTA

Cyber Competence Network

Cyber Security for Europe

A European network of cybersecurity centres of excellence

Four pilot cybersecurity network

Cyber Competence Network

CONCORDIA

Cyber security cOmpeteNCe fOr Research anD InnovAtion

Partners **55**
Member States **19**

Keywords
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**
Member States **20**

Keywords
Cybersecurity for citizens
Application cases
Research governance
Cyber ranges
Cybersecurity certification
Training in security

ECHO

Partners **30**
Member States **15**

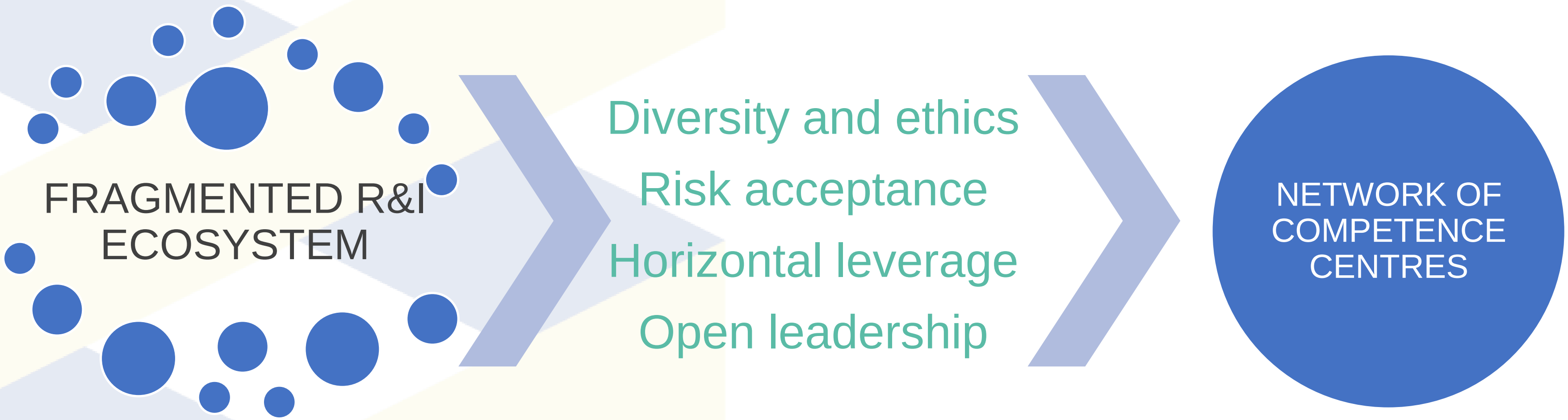
Keywords
Network of cybersecurity centers
Cyber range
Cybersecurity demonstration cases
Cyber-skills framework
Cybersecurity certification
Cybersecurity early warning

SPARTA

Partners **44**
Member States **14**

Keywords
Innovation governance
Cybersecurity skills
Cybersecurity certification
Community engagement
International cooperation
Strategic autonomy

Changing Europe’ cybersecurity research and innovation landscape



FRAGMENTED R&I ECOSYSTEM

Diversity and ethics

Risk acceptance

Horizontal leverage

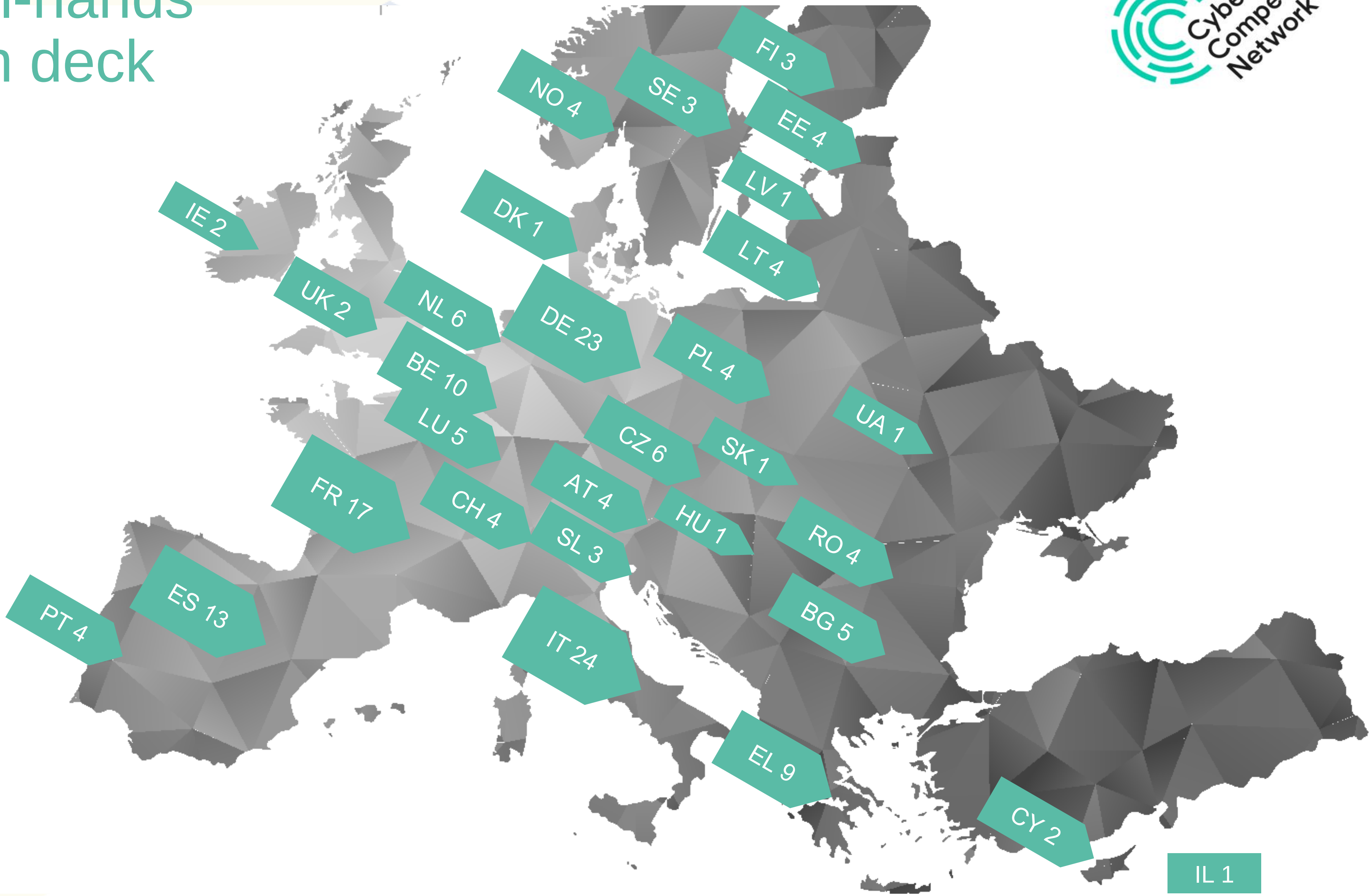
Open leadership

NETWORK OF COMPETENCE CENTRES

Strong academic performers
Insufficient critical mass

Intensified partnerships
World-leading capacities

All-hands on deck



Cyber Competence Network

Nurturing synergies

Cyber Competence Network

Industry engagement

- SME and regional eco-systems
- Cross-domain collaborations

Research and innovation

- Ties with ongoing calls and projects
- Consolidation with grassroots initiatives

Inclusive community-building

- End-users, pure players, academia, hacker spaces, member states
- Service catalogue for various stakeholders
- Extension of network memberships

Capacity-building

- Skills, education, and training curricula
- Platforms: federated cyber ranges

BRNO SECURITY MEETINGS

APRIL · 24 · 2019

SF 1.141, Technická 12, FEKT, VUT v Brně
Brno, Czech Republic

IMPLEMENTATION OF MODERN CRYPTOGRAPHIC ALGORITHMS ON SMART-CARDS — 5:00 PM

Ing. Petr Dzurenda (FEKT, VUT)

Lecture focused on modern cryptographic protocols with privacy protection and their practical usability. The implementation of such protocols is often difficult due to the low performance of current cards and low support of cryptographic and mathematical operations. Features of modern cards and the development of cryptographic applications will be described.

SECURE MULTI-PARTY COMPUTATION & RESOURCE-CONSTRAINED DEVICES

Mgr. Dušan Klinec (FI, MU)

Introduction to the secure multi-party computation (MPC) and its benefits in addressing single-point of failure problems such as ROCA 2017 by distributing the trust among participants. Focus on the practical usability of smart cards in the MPC context and possible automated MPC transformations for smart card use.

This project is supported by the European Union's Horizon 2020 research and innovation programme under grant agreements SPARTA No 830892 and CyberSec4Europe No 830929.

CYBERSEC FOR EUROPE 2019

13-15 November 2019
Hôtel de Région, Toulouse
22 Boulevard du Maréchal Juin,
FRANCE

READY TO PLAY?

5 CHALLENGES 5 WINNERS 5 AWARDS

Each hour a new challenge will be released, stay tuned on our social media and be the first to win!

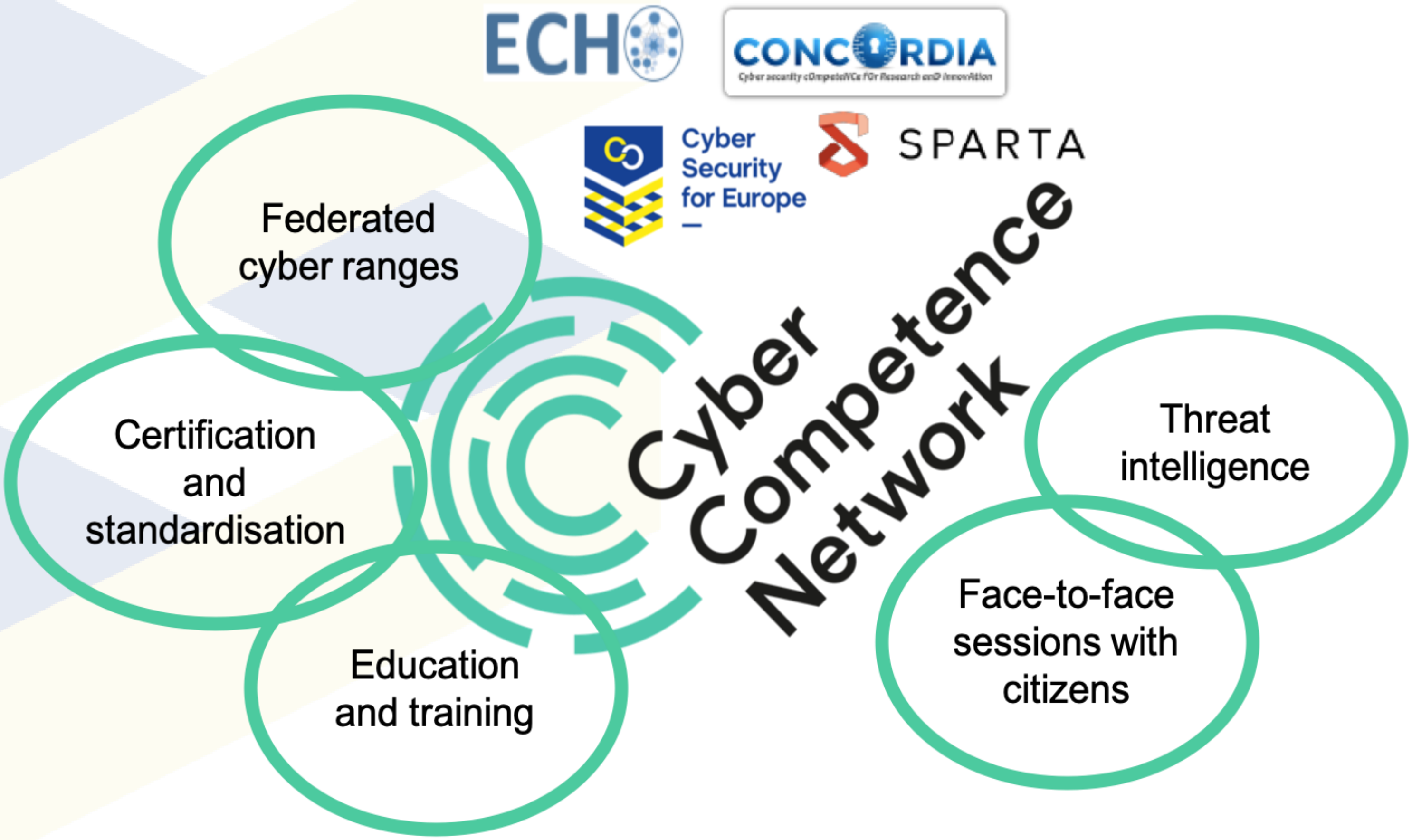
14:00h - 18:00h | 6 July

@sparta_eu @sparta_eu SPARTA

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 830892.

SPARTA

Early collaborative synergies



Federated cyber ranges

Certification and standardisation

Education and training

Threat intelligence

Face-to-face sessions with citizens

ECHO
CONCORDIA
Cyber security cOmpeteNCe fOr Research anD InnovAtion
Cyber Security for Europe
SPARTA
Cyber Competence Network

Cyber Security for Europe

CYBERWISER.eu

Cyber Range & Capacity Building in Cybersecurity

Pitch the needs of your own pilot & we'll train you!

Your chance to train your staff, for **free**. Prepare your company to face **cybersecurity threats** and **attacks**.

Register now!

Only few more seats available

Pisa, 5 November 2019 – Domus Comeliana

Cyberwiser Workshop
Panel with Competence Centre pilot projects: CyberSec4Europe

David Goodman, Trust in Digital Life

Pisa, 5 November 2019

CyberSec4Europe is funded by the European Union under the H2020 Programme

Grant Agreement No. 830929

About CyberSec4Europe

CyberSec4Europe is a research-based consortium working across four different but inter-related areas with a strong focus on openness and citizen-centricity in order to:

- Pilot a European Cybersecurity Competence Network
- Design, test and demonstrate potential governance structures for the network of competence centres
- Harmonise the journey from software componentry identified by a set of roadmaps leading to recommendations
- Ensure the adequacy and availability of cybersecurity education and training as well as common open standards
- Communicate widely and build communities

Who Are CyberSec4Europe?

Centres of Excellence / Universities / Research Centres / SMEs

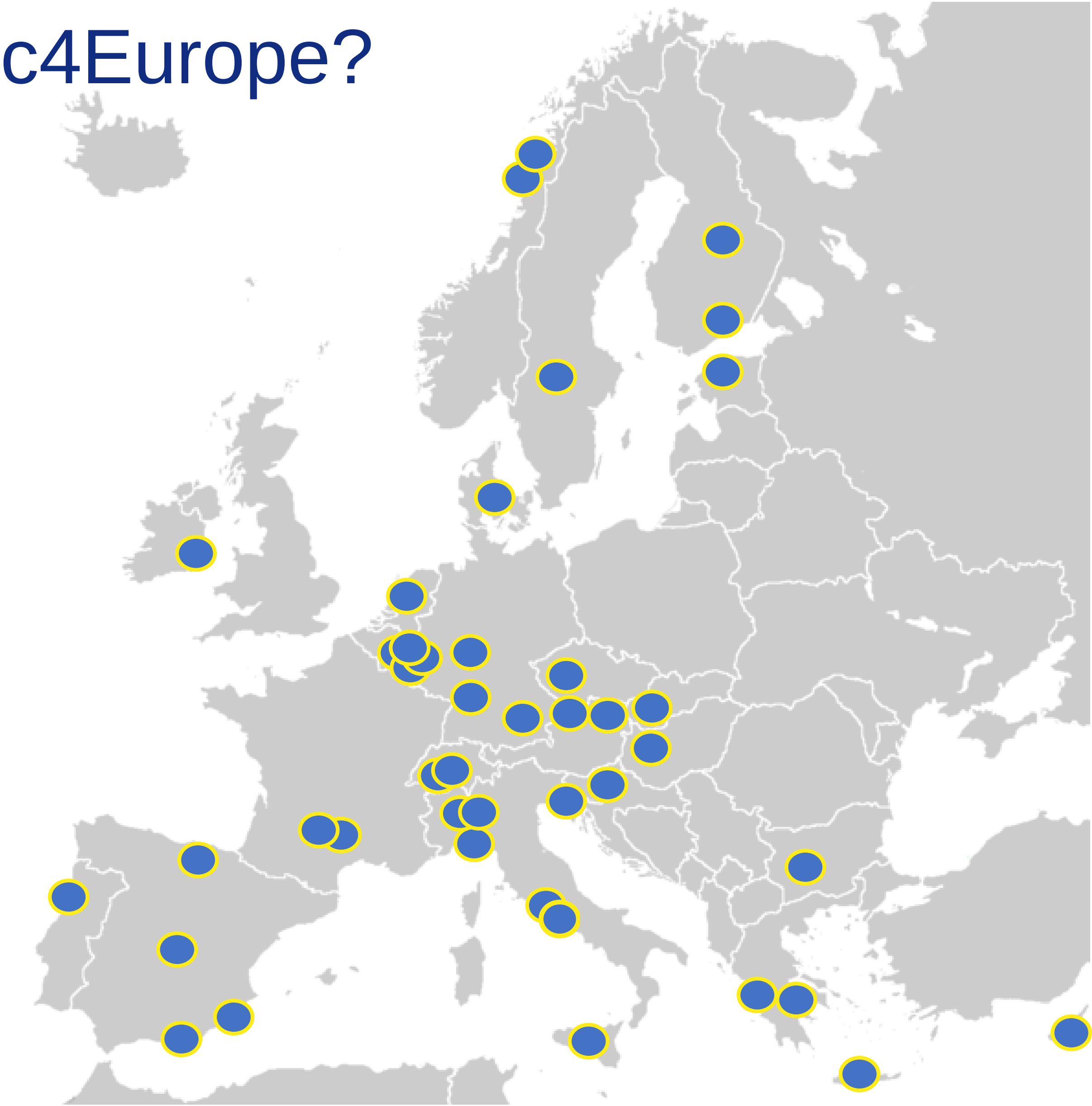
43 partners in 22 countries

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



Consortium Participants

Project Lead

Goethe University Frankfurt (DE)

WP Leaders

TU Delft (NL)

University of Murcia (ES)

FORTH (EL)

NEC Labs Europe (DE)

Trento University (IT)

Masaryk University Brno (CZ)

Cybernetica (EE)

Trust in Digital Life (BE)

Conceptivity (CH)

Associates

Inclusion during the project

Partners

ABI Lab (IT)

AIT (AT)

Archimede Solutions (CH)

ATOS Spain (ES)

Banco Bilbao Argentaria (ES)
University Porto (PT)
CNR (IT)
CTI “Diophantus” Patras (EL)
DAWEX (FR)
Denmark Technical University (DK)
Engineering Spa (IT)
Comune di Genova (IT)
Banque Populaire (FR)
International Cyber Investigation Training Academy (BG)
Intesa Sanpaolo (IT)
JAMK University of Applied Sciences (FI)
Karlstad University (SE)
KU Leuven (BE)

Norwegian University of Science and Technology (NO)

Open & Agile Smart Cities (BE)

Politecnico de Torino (IT)

Siemens AG (DE)

SINTEF (NO)

Time.Lex (BE)

University College Dublin (LERO) (IE)

University of Cyprus (CY)

University of Maribor (SI)

University of Malaga (ES)

University of Luxembourg (LU)

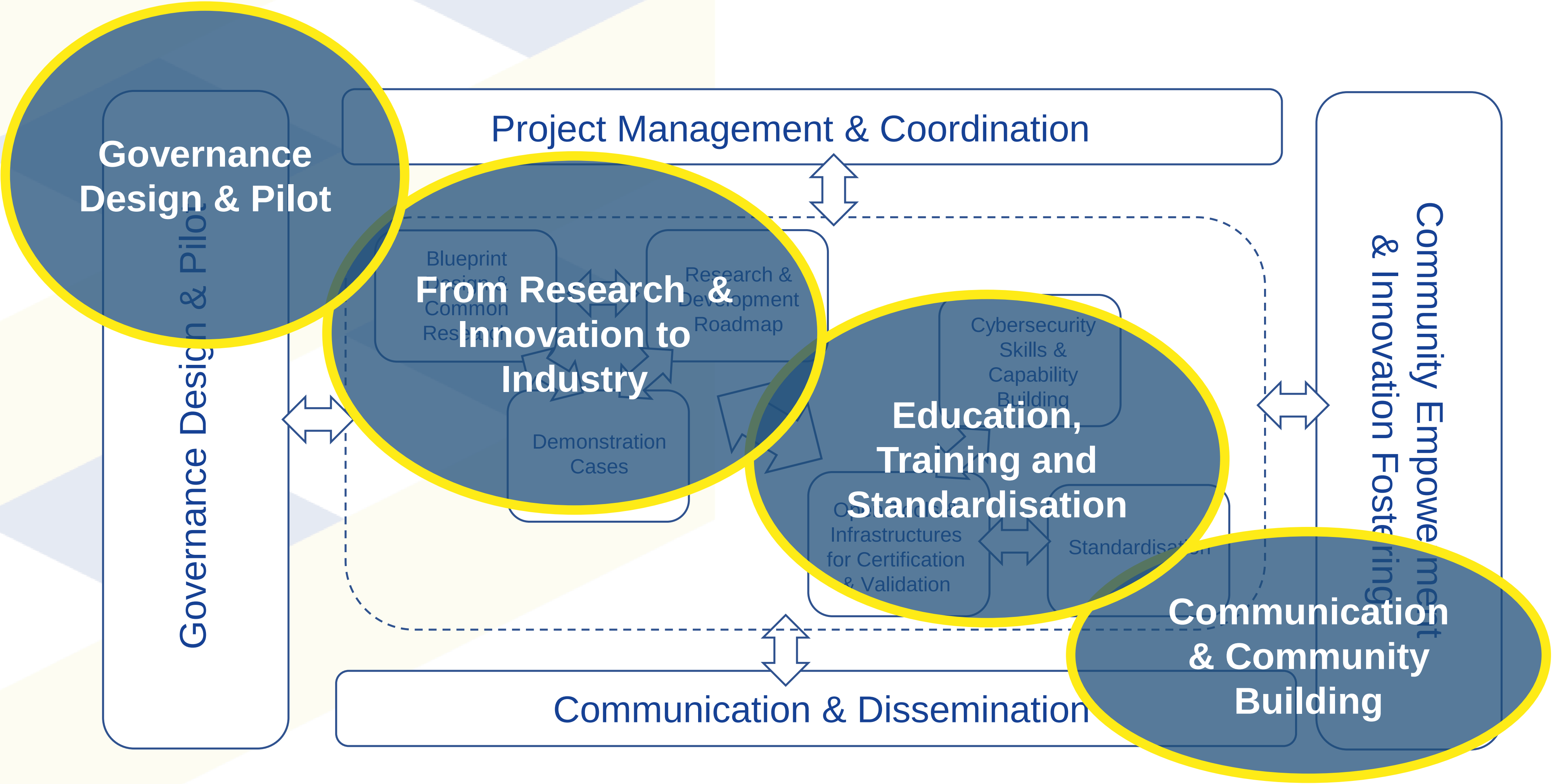
University of Piraeus (EL)

Université Paul Sabatier Toulouse (UPS-IRIT) (FR)

VaF (SK)

VTT (FI)

Piloting a Competence Network



Governance Design & Pilot

From Research & Innovation to Industry

Education, Training and Standardisation

Communication & Community Building

Project Management & Coordination

Governance Design & Pilot

Blueprint Design & Common Research

Research & Development Roadmap

Demonstration Cases

Cybersecurity Skills & Capability Building

Operational Infrastructures for Certification & Validation

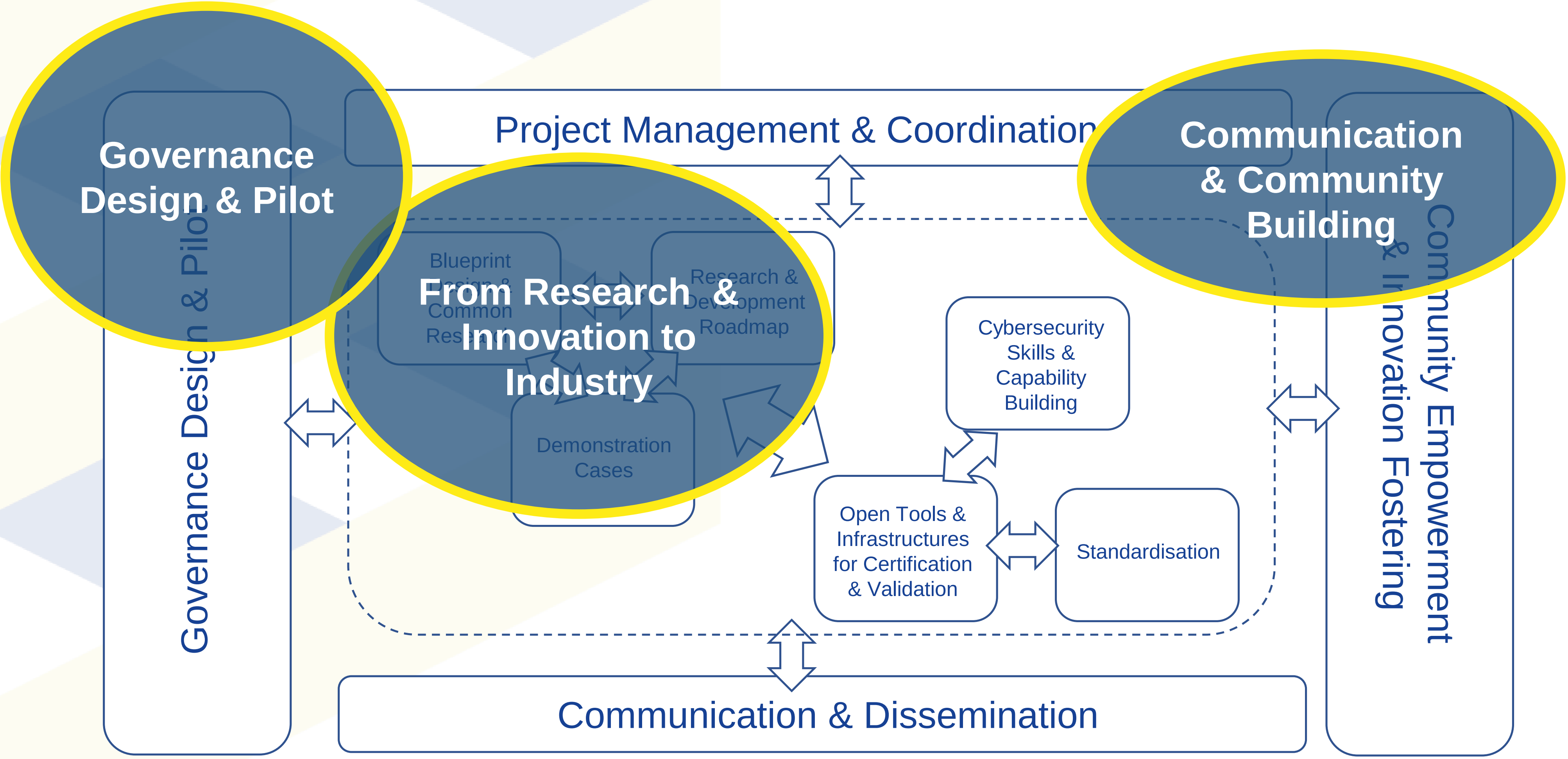
Standardisation

Community Empowerment & Innovation Fostering

Communication & Dissemination

Education, Training & Standardisation

Cyber Security for Europe



Governance Design & Pilot

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Standardisation

Community Empowerment & Innovation Fostering

Communication & Dissemination

Cybersecurity Skills & Capability Building

Cyber Security for Europe

Combines formal, professional and non-traditional skill building

- University education leading to a map of education in Europe
- Professional training and workforce assessment
- Virtual education
  - Quality branding of MOOC education was the first pilot of governance delivered in the summer
- Cyber ranges as platform for education, training

Cybersecurity Skills

To set an education and training framework and related instruments to support continuing education and lifelong learning in cybersecurity, organized to demonstrate the effectiveness of governance models and full transfer of pilot results to the future Centre’s operations.

Learning objectives and competences

required to develop and enhance cybersecurity skills for different profiles and roles.

Knowledge units & curricula, training and awareness

to achieve objectives and competences, setting activities to apply and test such competencies.

Implementing the CyberSec4Europe education strategy

for citizens, students, and professionals promoting the project brand / guidelines / procedures to produce and consume content.

Cyber Ranges

Construct open tools and a common portable virtual lab

A lightweight cyber range from existing proven building blocks

Federated infrastructures for cyber range and testing

Map **existing cyber ranges**

Certification – methodologies, tools and infrastructures

Examine and provide **open tools**

Certification

Methodologies, tools and infrastructures

To define governance and supporting services for security certification, with research, support, guidance and training for validation and certification of security properties of devices and systems for EU industry.

Aligning efforts with ENISA and ECSO framework policy work

Investigating certification for critical infrastructure components

Cooperating with tools / services, standardization, conformity and validation

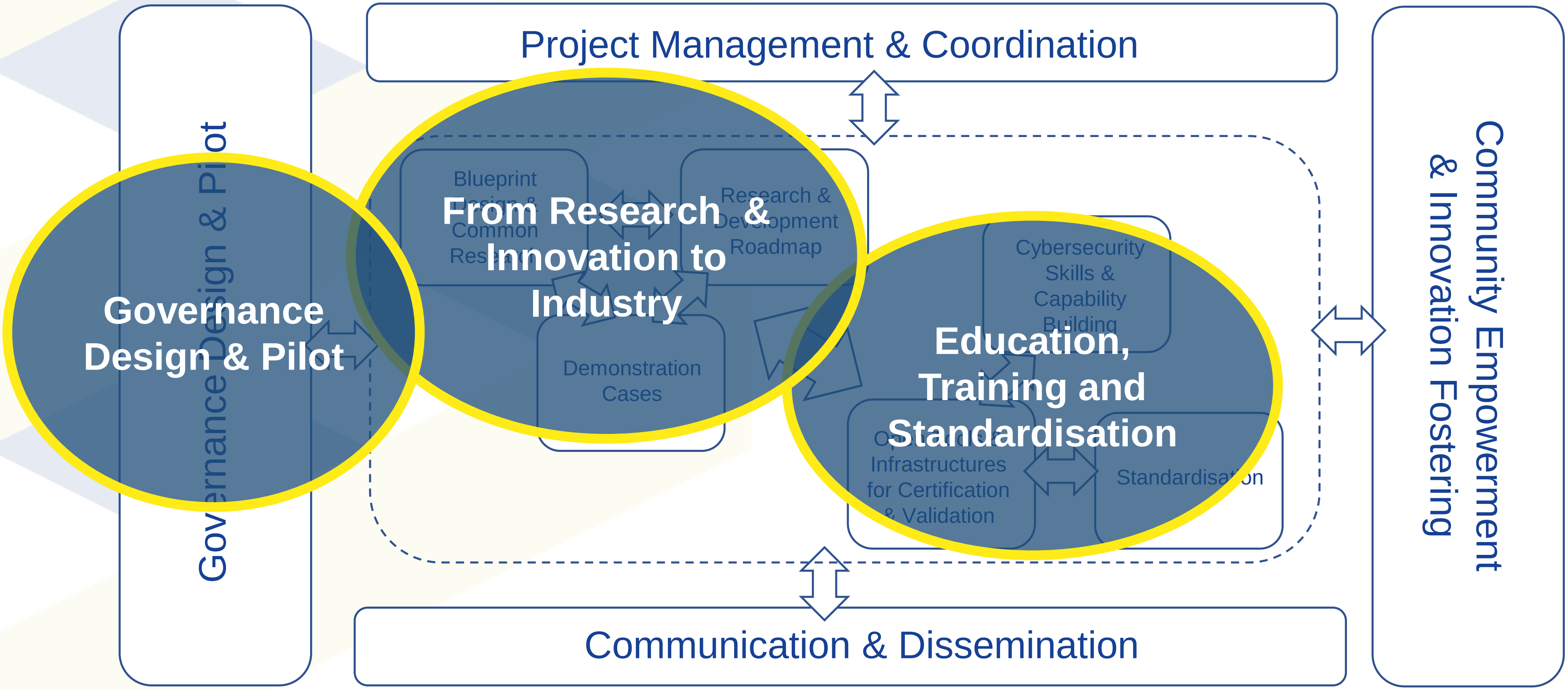
Reducing time to certification of critical sector cyber physical systems

Assessing the Cybersecurity Act, ISO27001 and GDPR

Aligning with ECSO, on future certification and harmonisation

Communication & Community Building

Cyber Security for Europe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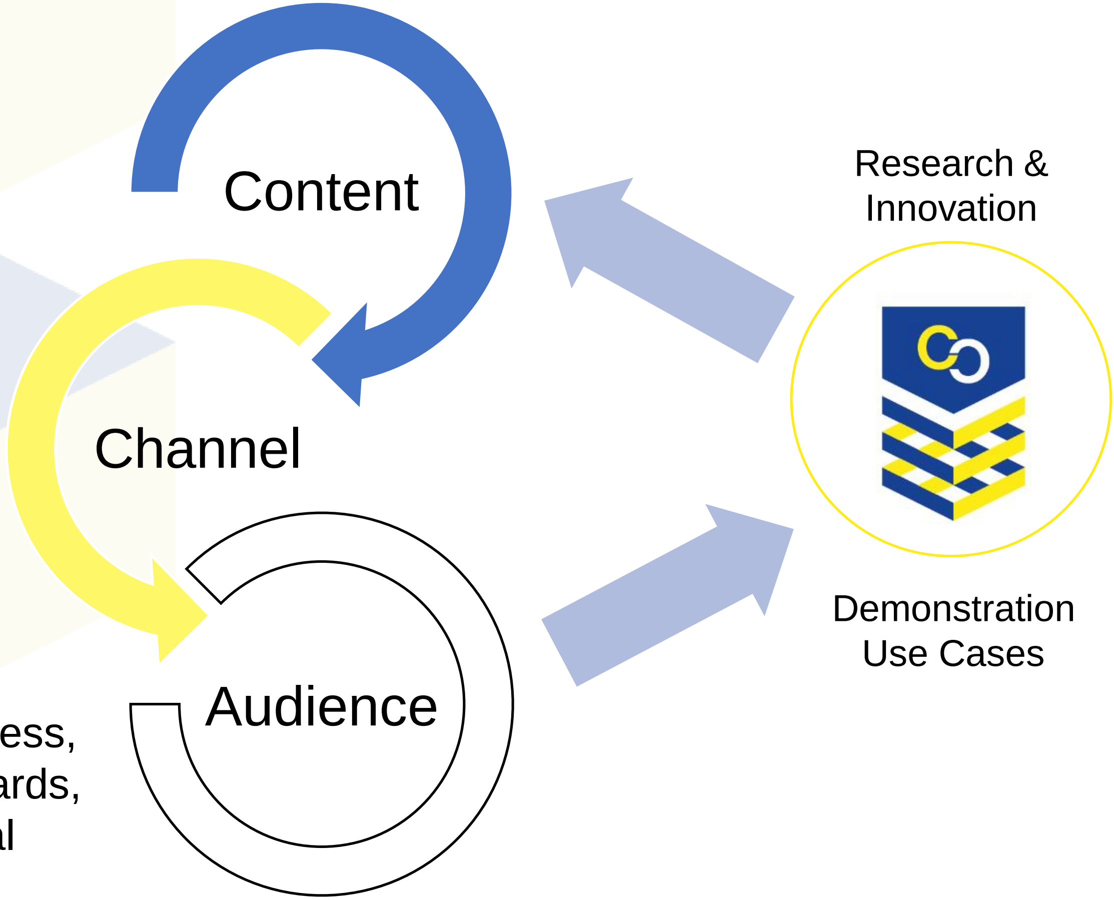
Communication & Dissemination

Dissemination and Communication

Dissemination is the spreading of results and best practice both on a peer-to-peer basis and across to industrial stakeholders and policy makers.

Communication is aimed at a wider audience with a number of sub-sets. At a fundamental level, it means every SME and citizen of Europe

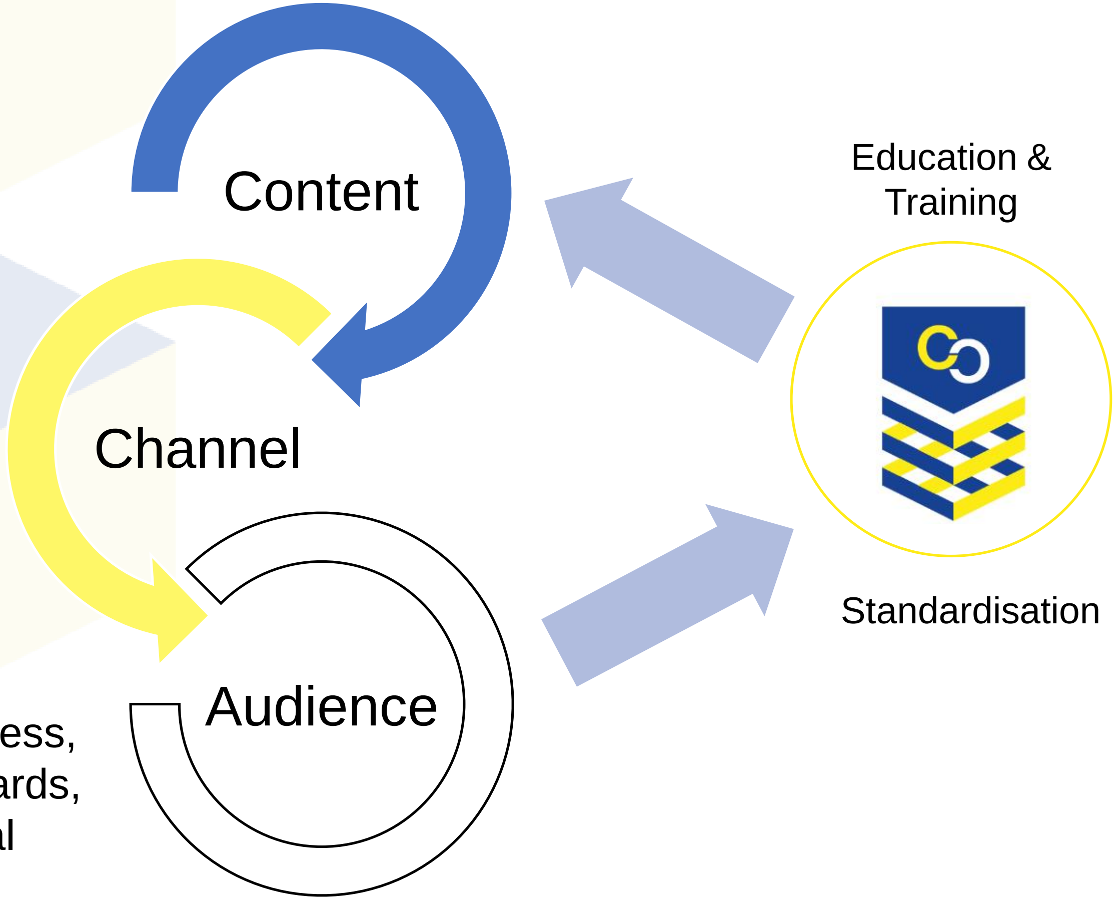
Communication & Dissemination



Journalists, media, social media, publications, events, presentations, education, skills training, summer schools

Technical, business, scientific, standards, legislative, social

Communication & Dissemination



Journalists, media, social media, publications, events, presentations, education, skills training, summer schools

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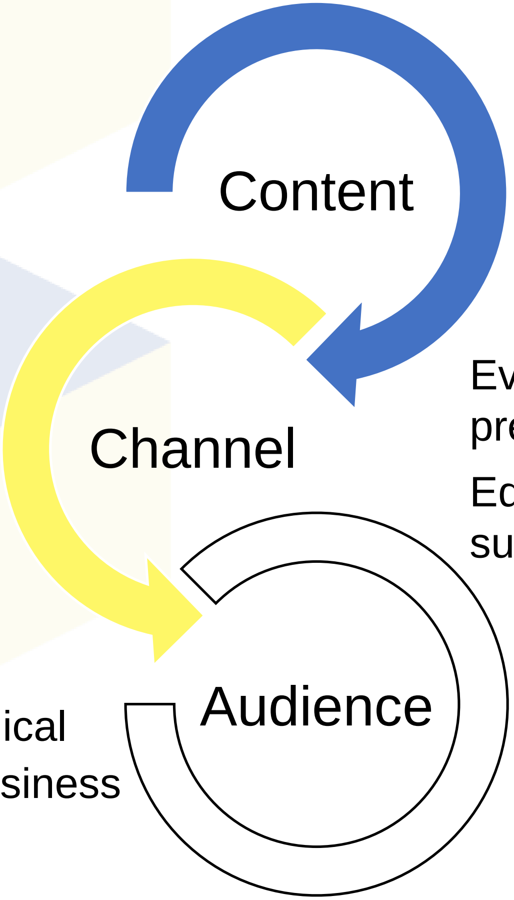
Spreading Awareness



Skills & Awareness

Journalists, media, social media

Publications

Events, presentations

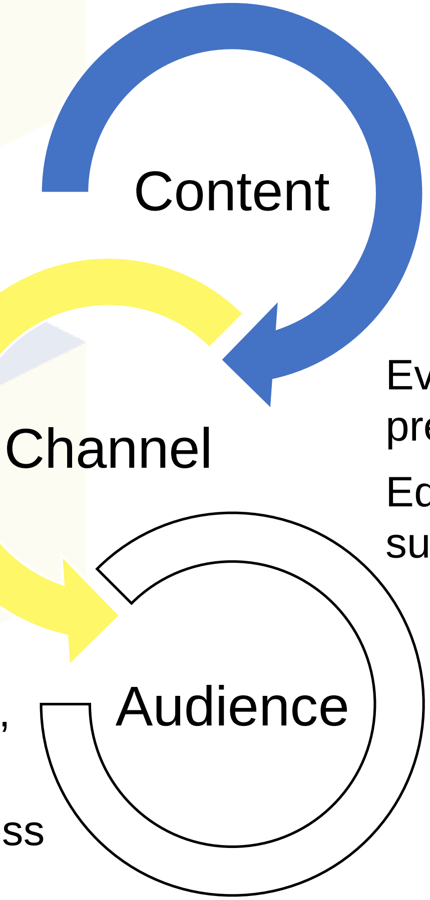
Education, skills training, summer schools

Technical

Business

Social

From Research & Innovation to Industry



Research & Innovation

Journalists, media,

Scientific journals, publications

Events, presentations

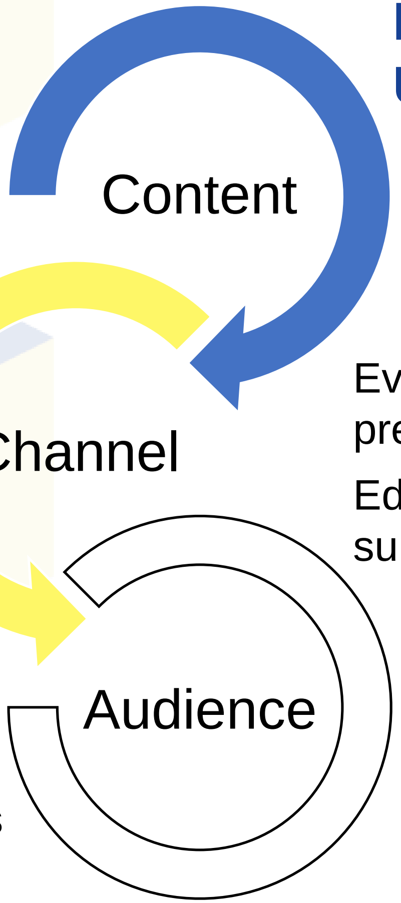
Education, skills training, summer schools

Technical, Scientific

Business

Standards

From Research & Innovation to Industry



Demonstration
Use Cases

Journalists, media,

Scientific
journals,
publications

Events,
presentations

Education, skills training,
summer schools

Technical, Scientific

Business

Social

Cybersecurity

13-15 November 2019
Occitanie Regional Go

Cyber
Security
for Europe

Three days of co
conversation & n

- With the EC, the C
French Governme
academia as well a
cybersecurity com
- Opportunities to he
explain their result
synergies with the
other stakeholders
- Illustrations of prot
actions

Cyber
Security
for Europe

CYBERSECURITY
FOR EUROPE
2019

13-15 November 2019
Hôtel de Région, Toulouse
22 Boulevard du Maréchal Juin,
FRANCE

anels:
cy
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curity governance
data sharing for

naging identities in

pean cybersecurity

Come and join us!

Cyber
Security
for Europe

Thank you!

david@trustindigitallife.eu

cybersec4europe.eu
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