EU-CIP

European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

"Fortifying the Future: How EU R&D can Shape Standards and Policies in Critical Infrastructure Protection"

Workshop, 10th December 2024

Anna Pomortseva (EOS) & Rashel Talukder (PPHS)

eu-cip.eu

EU-CIP

European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

"EU-CIP Standards Support Activities for EU projects"

eu-cip.eu

EU-CIP Facts & Figures

WHO

20 partners – including the coordinators of recent EU projects in resilient infrastructures in different sectors that are part of ECSCI

WHAT

Horizon Europe Framework Programme under the call HORIZON-CL3-2021-SSRI-01

WHEN

1 October 2022 - 30 September 2025 (36 months)

WHY

In response to topic: HORIZON-CL3-2021-SS-RI-01-02 "Knowledge Networks for Security Research & Innovation"

HOW

HORIZON Coordination and Support Actions
• Budget: € 2,019,875.00
• Funding: € 1,999,875.00

EU-CIP's **vision** is to establish a sustainable knowledge network of European CIP experts and stakeholders, with the **mission** to offer data analysis and services (knowledge, insights, foresights and guidance) for the development of evidence-based R&I policies and opportunities in the CIP domain.

EU-CIP
European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

EU-CIP Objectives and Results

OBJECTIVE 1 - EU-CIP ANALYSIS

RESULTS
- **R1**: Methodology for Continuous Desk Research, Analysis and Foresight
- **R2**: FAIR Observatory
- **R3**: Sectorial Studies (Whitepapers)
- **R4**: Added-Value Reports
- **R5**: Consultations and Feedback from AB

OBJECTIVE 3 - EU-CIP ECOSYSTEM

RESULTS
- **R8**: EU-CIP Knowledge Hub
- **R9**: Consolidated CIP Stakeholders' Community

OBJECTIVE 2 - EU-CIP AMPLIFY

RESULTS
- **R6**: Innovation Management Services supporting CIP/CIR Innovators
- **R7**: Virtualized Lab for Standards Based Solutions and Certification Schemes
- **R10**: Training Services

EU-CIP
European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

Highlights: Capability Needs and Gaps (CN/CG)

Identification of Initial Set of Capability Gaps and Needs

Continuous Refinement & Improvement based on Stakeholders' Feedback

Key insights for the KET (Key Enabling Technologies) based on CN/CG

AI & Automation

Real-time & Cyber-Physence

Needs in Quantum & Edge

CN/CG (Sample List)

Capability Needs	Capability Gaps
C1 - Enhanced adaptability	CG1 - Poor Automation
C2 - Reduced Response Times	CG2 – Lack of proper control of Interconnectedness
C3 - Increased Transparency	CG3 – Poor Alignment of Resilience Indicators
C4 - Improved Detection Capabilities	CG4 – Lack of agreed Standards-based stress-testing procedures
C5 - Improved risk and impact assessment capabilities	CG5 – Problems with the classification of IoT Devices
C6 - Better integration of Telco Security tools with Information Security Management tools	CG6 – Scalability in the Mitigation of Distributed Denial of Service (DDoS) attacks
C7 – Solutions addressing cascading effects between different entities and states	CG7 – Development and Deployment of AI-based systems
C8 - Transformation of proactive and adaptive protection tools and methods to incorporate real-time functionalities	CG8 – Lack of Holistic Security Management Systems
C9 – Better exploitation of information from critical sensors towards augmented situation awareness	CG9 – Gaps in Emergency Management Processes
C10 – Risk prediction and anticipation	CG10 – Inability to cope with dynamically evolving threats
C11 – Training, Reskilling and Upskilling	CG11 – Poor Awareness about modern CIP/CIR challenges
C12 - Supply Chain Security	CG12 – Adaptive Threat Intelligence
C13 - Public-Private Collaboration Frameworks	CG13 - Incident Response Coordination
C14 - Cross-Border Coordination	CG14 - Emerging Technology Adoption
C15 - Business Continuity and Disaster Recovery (BCDR)	CG15 - Rapid Recovery Strategies
C16 - Resilience Metrics and Reporting	

Drive different EU-CIP Activities

CN/CG Drive Different Activities

R&I Roadmaps

Market Analysis

Skills & Learning Paths

EU-CIP
European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection

Highlights: Multi-Source Information Analysis

Research Initiatives Analysis (16 Projects)

Market Analysis (focus on Europe)

Scientific State of the Art

Highlights: Sectorial Insights via Whitepapers

| 6 Sectorial Whitepapers	Key Insights	Common Insights on CIP
Water	• Cyber-Physical Security • Information Sharing • Cybersecurity Culture	
Energy	• Hybrid Threats • Supply Chain Challenges • Operational Tech (OT)	• Increased **Cyber Vulnerability** • Need for **Collaboration** • **Supply Chain Complexity** • **Skills** and **Awareness Gaps**
Finance	• Digital Transformation • Collaboration Gaps • Regulatory Pressure	
Space	• Cyber-Physical Threats • Satellite Growth • Security Frameworks	
Telecoms	• Complexity & Cyber Threats • Supply Chain Risks • Threat Intelligence	
Transport	• Cyber Dependency • Physical/Natural Resilience • Advanced Persistent Threats	
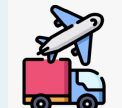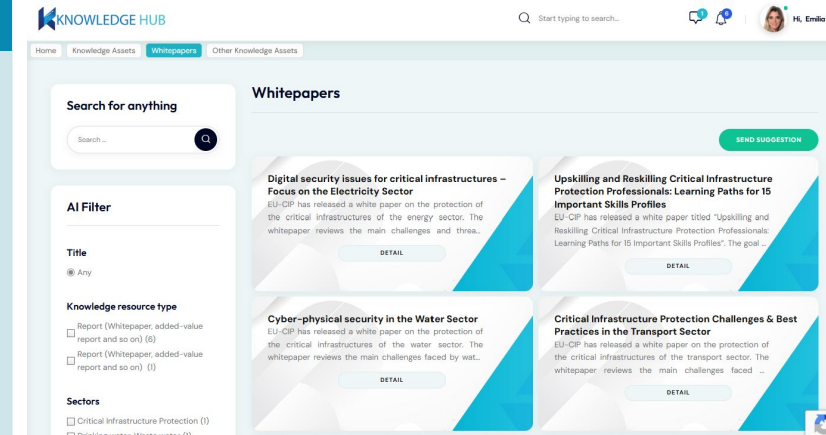
- **Upskilling and Reskilling whitepaper**
- Other **Sectorial whitepapers** WIP
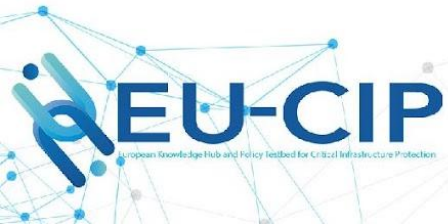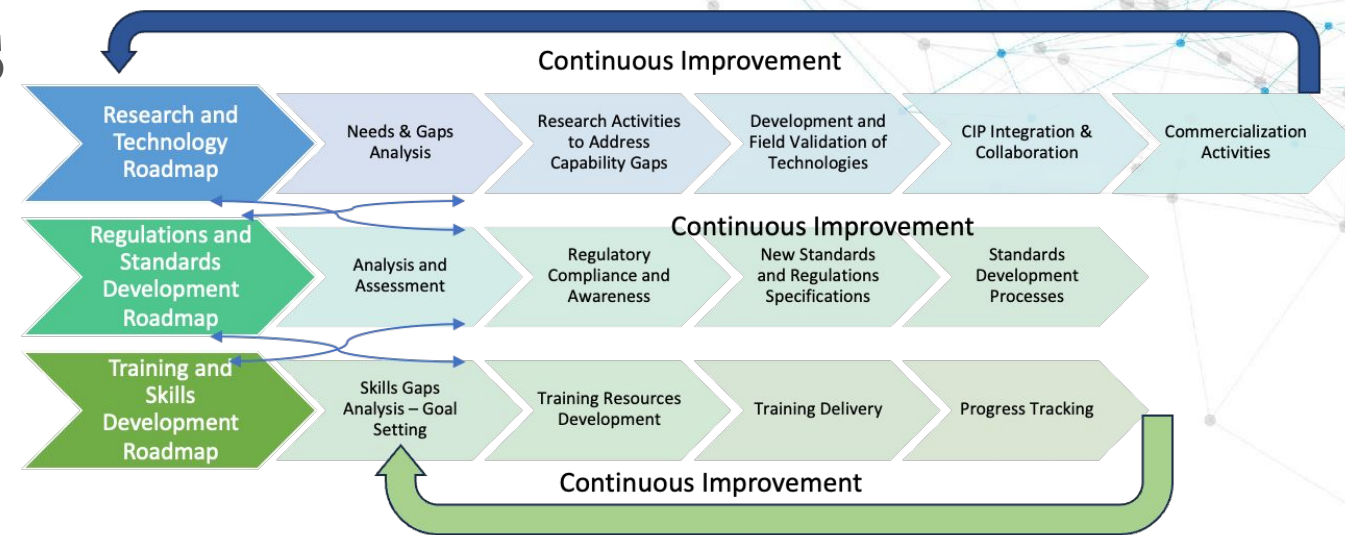
Highlights: Roadmaps

Multi-Facet (Technical, Research, Training etc.)

Broken Down to Concrete Activities

Continuous Refinement & Improvement

Highlights: EU-CIP Virtual Innovation Hub

5 Innovation Services Launched
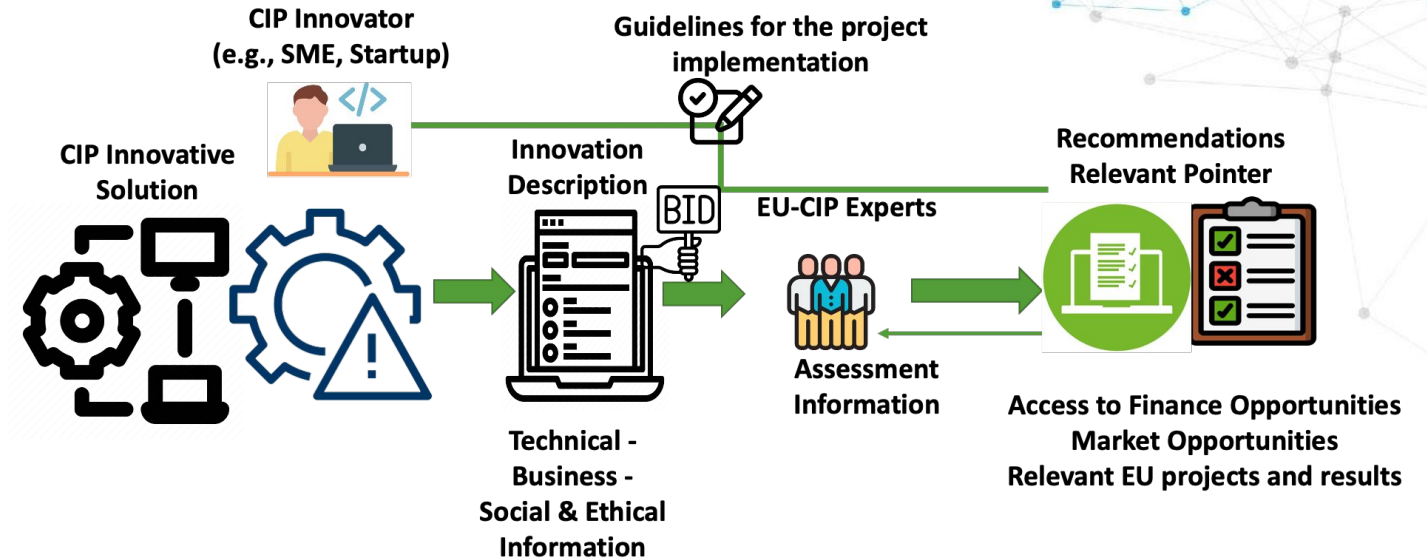(*Integrated in KH; Validated in OC TypeB*)

1. EU-CIP Innovation Support Form Service

2. Training Services

3. Business Plan and Co-Creation Support

4. Virtualized Innovation Lab for Solution Validation – **Type B Open Calls**

5. Catalogue of Best Practices and Success Stories

CIP Innovator
(e.g., SME, Startup)

Guidelines for the project implementation

CIP Innovative Solution

Innovation Description

Recommendations Relevant Pointer

EU-CIP Experts

Technical - Business - Social & Ethical Information

Assessment Information

Access to Finance Opportunities
Market Opportunities
Relevant EU projects and results

CIP Training Courses Catalogue

Access CIP Training Resources through a Single-Entry Point

Skills Profiles & Learning Paths

Bundle Courses in Packages that support entire Skills Profiles

"Home Grown" EU-CIP Courses

CIP Courses on Trending Topics like AI and Cyber-Physical Threat Intelligence

On-line Webinar

On-Line Webinars on Technological & Innovation Management Themes

Highlights: EU-CIP Knowledge Hub

The Knowledge Hub is supported by a proper digital infrastructure, and it provides a **single access point** to the project's results, boosting knowledge sharing and collaboration between the various stakeholders. It is potentially a crucial tool in **mitigating information fragmentation** in the CIP/CIR sector.

Collaborative Environment

A large ecosystem including all parties involved in CIP/CIR

- CIP/CIR Topics Knowledge Asset
- CI-related Technologies
- Innovators Content
- CIP/CIR Solutions
- CI Sectors
- Training
- EU Projects
- Blogs & News
- Collaboration and Knowledge Sharing Services
- CIP/CIR Events

Link among all the resources

Highlights: EU-CIP Knowledge Hub

https://knowledgehub.eucip.eu/
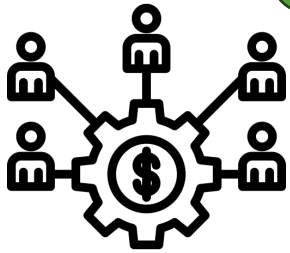
Integrated & Launched

Critical Mass of Content (>=100 Resources)

>=230 Registrations
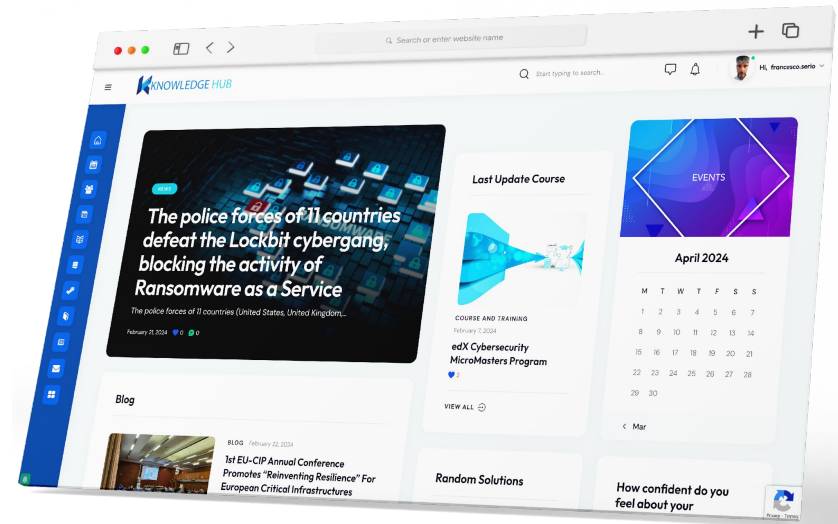
KH Development Streamlined with Community Building

KNOWLEDGE HUB

Suggest knowledge resource

Highlights: Building the EU-CIP Ecosystem

1. Links with Initiatives (ECSCI, CERIS/SSRI, H2020/HEU Projects, National Initiatives)

2. Ecosystem Building Activities (Annual Conference, Webinars…)

3. Active / Continuous Content Marketing (>1100 LinkedIn Followers)

4. Links to National Initiatives / Stakeholders in several EU-27 countries

Thank you!

Anna Pomortseva

EOS

anna.pomortseva@eos-eu.com

eu-cip.eu