

ATLANTIS

*Improved resilience of Critical Infrastructures
Against large scale transnational and systemic risks*



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Joint Webinar – 10th December 2024

ATLANTIS, EU-CIP and ECSCI Cluster Joint Webinar

10 December 2024, 09:00-14:00 CET

*“Fortifying the Future: How EU R&D Projects can Shape
Standards and Policies in Critical Infrastructure Protection”*



ATLANTIS and SUNRISE

Joint Policy Brief

Enhancing Resilience of Critical Infrastructures in Europe: Insights and Recommendations

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ATLANTIS & SUNRISE Joint Policy Brief ROADMAP





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Introduction and Context



Title: Enhancing Resilience of Critical Infrastructures in Europe: Insights and Recommendations from ATLANTIS and SUNRISE Projects

Context:

- Critical Infrastructures (CIs) are vital for societal and economic stability.
- Growing systemic risks: pandemics, cyber threats, climate disasters, hybrid warfare.
- EU-funded projects **ATLANTIS** and **SUNRISE** address CI resilience challenges.

Objectives:

- Align resilience strategies with EU directives (CER, NIS2).
- Address vulnerabilities and interdependencies in critical systems.
- Leverage on **scenario-based planning** for cascading risks and **data-augmented AI-enabled** Decision Support Systems (DSS) for situational awareness and decision making





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Key Findings from ATLANTIS and SUNRISE

Common Findings:

- **Collaboration** across organizations, sectors, and countries is essential.
- Need for **harmonization of standards** and **real-time data sharing**.
- **Scenario-based exercises** improve crisis preparedness.

ATLANTIS Focus Areas:

- Hybrid threat resilience via **cross-border collaboration**.
- Data-augmented and AI-based DSS for **real-time risk management**.
- Space technologies for **enhancing CI security strategies**.

SUNRISE Focus Areas:

- **Resilience and interdependency** assessments in temporary operational conditions
- **Multi-entity risk management, threat multipliers and impact of non-pharmaceutical interventions.**
- Use and impact of **real-time data gathering and collaboration**



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Challenges Identified

Organizational:

- Reluctance to share sensitive data due to **privacy concerns**.
- Complex **interdependencies** among CI operators.
- Varying **standards, priorities, and resources** across sectors and countries.

Technological:

- Legacy systems limit **integration** of modern technologies.
- Evolving threat landscape requires **adaptive, real-time** tools.
- Balancing **short-term** operational needs with **long-term** resilience.

Policy-Related:

- **Delays in transposing** CER and NIS2 directives into national laws.
- Need for **capacity building** and consistent **implementation** across Member States.



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Recommendations for Enhancing CI Resilience

Strategic Actions:

- Harmonize **EU-wide policies and standards** for CI resilience.
- Foster **cross-sector** and **cross-border** collaboration.
- Integrate **scenario-based planning** into CI strategies.

Technological Solutions:

- Develop and adopt **data-augmented AI-based DSS** for risk prediction and management.
- Invest in tools for **cyber-physical-human threat detection**.
- Upgrade CI systems to be **adaptive** and **interoperable**.

Policy and Governance:

- Accelerate **transposition and enforcement** of CER and NIS2 directives.
- Encourage **real-time data sharing** with proper privacy safeguards.
- Conduct **joint training and preparedness exercises** across Member States.



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Priority for Policy Recommendations

R1: Develop and Deploy Scenario-Based Planning

[8 recommendations]

- *Short-Term Actions* [R1.1, R1.2, R1.3] [3]
- *Medium-Term Actions* [R1.4, R1.5, R1.6] [3]
- *Long-Term Actions* [R1.7, R1.8] [2]

R2: Set-up and Operationalize Data-Augmented Decision Support Systems

[9 recommendations]

- *Short-Term Actions* [R2.1, R2.2, R2.3, R2.4] [4]
- *Medium-Term Actions* [R2.5, R2.6, R2.7] [3]
- *Long-Term Actions* [R2.8, R2.9] [2]

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Next Steps

- The brief will be published on project websites on the 10th DEC at **10:00** CET
 - <https://www.atlantis-horizon.eu/news/>
 - <https://sunrise-europe.eu/project-news/>
- The brief will be published on LinkedIn on the 10th DEC at **14:00** CET
 - <https://www.linkedin.com/company/atlantis-horizon-europe-project/>
 - <https://www.linkedin.com/company/sunrise-project-europe/>
- Press release will be issued in the following days after the webinar

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Thank You!