



HORIZON EUROPE

Resilient Infrastructure

CLUSTER 3 – Info day 2024

12 June 2024



Destination “Resilient Infrastructure”

CALL RESILIENT INFRASTRUCTURE (INFRA) 2024



Resilient Infrastructure (INFRA)

Expected impact of the Horizon Europe Strategic Plan 2021-2024:

- “[...] resilience and autonomy of physical and digital infrastructures are enhanced and vital societal functions are ensured, thanks to more powerful prevention, preparedness and response, a better understanding of related human, societal and technological aspects, and the development of cutting-edge capabilities for [...] infrastructure operators [...]”

Specific Impacts:

- Ensured resilience of large-scale interconnected systems infrastructures and the entities that operate them in in case of complex attacks, pandemics, natural and human-made disasters, or the impacts of climate change;
- Upgraded systems for resilience of the operators and the protection of critical infrastructure to enable rapid, effective, safe and secure response and without substantial human intervention to complex threats and challenges, and better assess risks ensuring resilience and open strategic autonomy of European infrastructures;
- Resilient and secure smart cities are protected using the knowledge derived from the protection of critical infrastructures and systems that are characterised by growing complexity.



Resilient Infrastructure – Policy Context

Policy priorities:

- EC Headline ambitions
- Security Union Strategy
- Joint Framework on Countering Hybrid Threats
- Union Civil Protection Mechanism
- Measures for high common level of cybersecurity across the Union (NIS-2 Directive)
- Resilience of Critical Entities (CER Directive)

Moreover:

- The capabilities built by research and innovation in this Destination would clearly be relevant to be better prepared for potential future challenges to European internal security and crises as the ones in Ukraine in 2022.
- Where possible and relevant, synergy-building and clustering initiatives with successful proposals in the same area should be considered, including the organisation of international conferences in close coordination with the Community for European Research and Innovation for Security (CERIS) activities and/or other international events.

Overview

Topic	ToA	Expected EU contrib per project	N proj	Min eligibility	Target TRL
INFRA01 – Improved preparedness and response for large-scale disruptions of European infrastructures					
HORIZON-CL3-2024-INFRA-01-01: Open Topic	IA	5 million EUR	1	This topic requires the active involvement, as beneficiaries, of at least 2 critical infrastructure operators and 2 civil protection authorities from at least 3 different EU Member States or Associated Countries.	6-8
INFRA02 – Resilient and secure urban areas and smart cities					
HORIZON-CL3-2024-INFRA-01-02: Resilient and secure urban planning and new tools for EU territorial entities	IA	6 million EUR	1	This topic requires the active involvement, as beneficiaries, of at least 2 local or regional government authorities from 2 at least different EU Member States or Associated Countries.	6-8
HORIZON-CL3-2024-INFRA-01-03: Advanced real-time data analysis used for infrastructure resilience	RIA	5 million EUR	1	This topic requires the active involvement, as beneficiaries, of at least 3 infrastructure operators, which could include civil protection authorities, at national level from at least 3 different EU Member States or Associated Countries.	5-6

Destination “Resilient Infrastructure” (INFRA)

TOPICS CALL 2024



HORIZON-CL3-2024-INFRA-01-01: Open Topic

Area: INFRA01 – Improved preparedness and response for large-scale disruptions of European infrastructures

Expected outcomes:

- Critical infrastructure operators are more resilient to threats and natural and human-made hazards;
- Improved monitoring, risk assessment, forecast, mitigation and modelling techniques aimed at increasing the resilience of critical infrastructures, validating multi-hazard scenarios, creating interactive hazard maps supported by Earth Observation and other data sources.

HORIZON-CL3-2024-INFRA-01-02: Resilient and secure urban planning and new tools for EU territorial entities

Area: INFRA02 – Resilient and secure urban areas and smart cities

Expected outcomes:

- Evaluation of the resilience of an urban and peri-urban environment, identification of weaknesses and recommendations for changes to organizational processes;
- Creation of new tools and cost-efficient security upgrades of urban infrastructures with possibilities of pooling and sharing of complex security systems, taking into account limited budgets of local authorities;
- Improved efficiency of the security forces and emergency services (police, firefighters, paramedics ...) for the benefit of the European citizens and residents;
- Promotion of best practices, creation of EU sovereign trusted decision support tool/solution and spreading of effective tools and capabilities across entities in different EU territories despite their size and location.

HORIZON-CL3-2024-INFRA-01-03: Advanced real-time data analysis used for infrastructure resilience

Area: INFRA02 – Resilient and secure urban areas and smart cities

Expected outcomes:

- Improved capabilities for risk and faulty events identification in infrastructure networks and smart cities through real-time analysis (including big data) by public and private actors via secured and trusted platforms and interconnected systems where the collaboration follows clear legal and political frameworks;
- Tools and processes for facilitating stakeholders efforts to identify, analyse, assess and continuously monitor risks and boost adaptive capacity to unexpected events risks in advance by allowing for the analysis of various data sources (e.g. audio, video, social media, web-content, spatial information, sensor or machine generated data);
- Fast and continuous real-time identification, classification and tracking of hazardous agents, contaminants or anomalies in infrastructure networks and supply-chains;
- Interoperable interfaces and improved collaboration between infrastructure operation detection and response systems, national/EU risk management/coordination centres and first responder equipment in order to allow for remote on-scene operations considering citizen knowledge;
- Increased cyber-resilience of industrial xG networks and cloud data covering specific infrastructure domains;
- Improved ability to map in real-time the source(s) of risk factors that could endanger the networked infrastructure supported by Earth Observation and geolocation data. If the analysis includes processing of personal data, it should consider including a risk assessment or privacy impact of individuals and society.

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