

## TESTUDO

HORIZON-CL3-2022-INFRA-01- Grant Agreement No. 101121258

AUTONOMOUS SWARM OF HETEROGENEOUS RESOURCES IN  
INFRASTRUCTURE PROTECTION VIA THREAT PREDICTION AND PREVENTION

### D11.1

## Dissemination plan and communication materials

<b>Lead Beneficiary</b>	PIAP
<b>Type of Deliverable</b>	R
<b>Version</b>	2.0
<b>Due date</b>	31.03.2024
<b>Date of submission</b>	25.04.2024
<b>Dissemination level</b>	PU



TESTUDO is a project funded by the European Commission under the Horizon Europe Programme (HORIZON-CL3-2022-INFRA-01) under Grant Agreement No. 101121258.

<b>Work Package</b>	WP11 - Impact creation and outreach v1
<b>Deliverable</b>	D11.1 - Dissemination plan and communication materials
<b>Editor (s)</b>	Agnieszka Sprońska - PIAP
<b>Contributor (s)</b>	Grzegorz Kowalski - PIAP, Sławomir Puchalski – PIAP, Erika Nika – DBC, Lea Fotopoulou - T4i, Konstantinos Peroulis – EYDAP
<b>Reviewer (s)</b>	Ifigenia Tsioutsia – DRAXIS, Martina Bogdanova - LIF

<b>Abstract</b>	Deliverable D11.1 is aimed at updating the preliminary dissemination and communication strategy, as outlined in the project Grant Agreement, and it includes the information needed to facilitate the communication and dissemination efforts of TESTUDO partners as well as summarises the dissemination and communication activities performed by the TESTUDO consortium in the first 6 months of the project duration and indicates future prospects for these activities.
<b>Keywords</b>	dissemination, communication
<b>Disclaimer</b>	<p>The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the European Communities. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.</p> <p>© Copyright in this document remains under the TESTUDO consortium</p>

## Document History

Version	Date	Partner	Remarks
0.1	25.01.2024	PIAP	ToC – draft version
0.2	11.03.2024	PIAP	Draft of all sections
0.2	20.03.2024	DRAXIS	Internal Review
0.2	25.03.2025	LIF	Internal Review
1.0	28.03.2024	PIAP	Final version after the review (all sections)
2.0	24.04.2025	CERTH	Final Quality Check

## Executive Summary

The dissemination and communication activities in TESTUDO project are executed under the **WP11-12 Impact creation and outreach**, which aims to: (i) design a communication and dissemination strategy to promote the project's results, (ii) define an exploitation plan and verify the exploitation potential, (iii) engage stakeholders and identify collaborations with other relevant projects, (iv) provide policy recommendations and an overall project impact assessment.

Deliverable D11.1 has been produced in M06 of the project under the **Task T11.1 Dissemination plan, toolkit and actions**, which role is to update and implement the dissemination plan for communicating and promoting the project and its findings. D11.1 is aimed at updating the preliminary dissemination and communication strategy, originally outlined in the project Grant Agreement, and it contributes to reaching the project objective *PO7 Identification of potential uptakes and impacts* by delivering an early dissemination plan. The document includes the information needed to facilitate the communication and dissemination efforts of TESTUDO partners, including identification of the target groups and related key messages, an overview of the communication tools and materials envisaged for reaching various audiences, KPIs set forth to create the significant impact as well as guidelines for the project partners regarding compliance with the rules for visibility of EU funding and security considerations applying to the project's dissemination and communication activities.

D11.1 is related to deliverables: *D11.2 Activity report on dissemination activities and policy making* and *D11.3 Exploitation plans and impact pathways assessment*, which will be submitted in M18.

## Table of Contents

<b>1. Introduction</b>	<b>8</b>
1.1. Purpose of the document	8
1.2. Scope of the document	8
1.3. Structure of the document	8
<b>2. Communication and Dissemination Plan</b>	<b>9</b>
2.1. Communication and Dissemination Strategy	9
2.2. Target groups and key messages	9
2.3. Communication and dissemination tools and materials	13
2.3.1. Dissemination of project results	14
2.3.2. Communication materials	16
2.3.2.1. Visual identity	16
2.3.2.2. Project webpage	16
2.3.2.3. Social media	18
2.3.2.4. Leaflet, poster and general project presentation	19
2.3.2.5. Project videos	20
2.3.2.6. Press release	21
2.3.2.7. Newsletter	22
2.4. Communication and dissemination KPIs	22
2.5. Communication & dissemination info collector	23
<b>3. Communication and dissemination activities</b>	<b>23</b>
3.1. Activities performed in the first six months of project implementation	23
3.2. Future plans	24
<b>4. Contribution from other tasks</b>	<b>25</b>
4.1. Standardisation activities	25
4.2. Policy making related activities	27
<b>5. Compliance issues</b>	<b>27</b>
5.1. Security sensitivity	27
5.2. Visibility of EU funding	28
<b>6. Conclusions</b>	<b>29</b>
<b>Appendices</b>	<b>30</b>
Appendix I – General project presentation	30
Appendix II – Press release	30
Appendix III - Draft template of standardisation survey for partners	30

## List of Figures


<b>Figure 1.</b> TESTUDO stakeholders.....	10
<b>Figure 2.</b> TESTUDO logo in different variants .....	16
<b>Figure 3.</b> TESTUDO website structure .....	17
<b>Figure 4.</b> TESTUDO public website (snapshots of the Home page, Concept and Trials tabs).....	17
<b>Figure 5.</b> TESTUDO social media profiles (snaphots).....	18
<b>Figure 6.</b> TESTUDO preliminary version of the leaflet/flyer .....	19
<b>Figure 7.</b> TESTUDO leaflet, poster and roll-up (digital versions).....	20
<b>Figure 8.</b> TESTUDO general presentation (selection of slides) .....	20
<b>Figure 9.</b> TESTUDO introductory video (selection of stills).....	21
<b>Figure 10.</b> Draft of survey document related to standardisation activities.....	26

## List of Tables

<b>Table 1.</b> Key communication messages for different target audiences .....	12
<b>Table 2.</b> Dissemination activities and target groups at partner level .....	13
<b>Table 3.</b> Communication and dissemination KPIs .....	23
<b>Table 4.</b> Summary of the communication and dissemination activities performed in the first six months of the project .....	24
<b>Table 5.</b> Overview of the communication and dissemination activities planned by the TESTUDO partners .....	24

## Terms and Abbreviations

Label	Text
3D	3-dimensional
CBRN	Chemical, Biological, Radiological, Nuclear
CI	Critical Infrastructure
DoA	Description of Action
EC	European Commission
EU	European Union
FAIR	Findability, Accessibility, Interoperability and Reusability
FR	First Responder
GA	Grant Agreement
HMI	Human Machine Interface
KPI	Key Performance Indicators
LEA	Law Enforcement Agency
M[XX]	Month [of the project]
PO	Project Objective
PSO	Project Security Officer
R&D&I	Research, Development and Innovation
REA	Research executive Agency
RTO	Research and Technology Organisation
SAB	Security Advisory Board



UxV	Unmanned Vehicle
WP	Work Package
XAI	Explainable Artificial Intelligence

# 1. Introduction

## 1.1. Purpose of the document

The dissemination and communication activities in TESTUDO project are executed under the **WP11-12 Impact creation and outreach**, which aims to: (i) design a communication and dissemination strategy to promote the project's results, (ii) define an exploitation plan and verify the exploitation potential, (iii) engage stakeholders and identify collaborations with other relevant projects, (iv) provide policy recommendations and an overall project impact assessment.

D11.1 is aimed at updating the preliminary dissemination and communication strategy, originally outlined in the project Grant Agreement, contributing to reaching the project objective PO7 *Identification of potential uptakes and impacts* by delivering an early dissemination plan and serving as a guidance for the TESTUDO partners in their dissemination and communication efforts throughout the project.

The deliverable is related to deliverables: *D11.2 Activity report on dissemination activities and policy making* and *D11.3 Exploitation plans and impact pathways assessment*, which will be submitted in M18.

## 1.2. Scope of the document

Deliverable D11.1 has been produced in M06 of the project under the **Task T11.1 Dissemination plan, toolkit and actions**, which role is to update and implement the dissemination plan for communicating and promoting the project and its findings.

The task is executed in parallel with tasks: *T11.2. Standardization activities and development of stakeholder network*, *T11.3. Market analysis and potential business models*, *T11.4. Exploitation strategies and long-term sustainability* as well as *T11.5. Impact in EU policy for critical infrastructure protection*, which results are expected in M18.

This deliverable focuses on the TESTUDO project communication and dissemination strategy and plan, including an overview of the outlining information needed to facilitate the communication and dissemination efforts of TESTUDO partners, encompassing identification of the target groups and related key messages, an overview of the communication tools and materials envisaged for reaching various audiences, KPIs set forth to create the significant impact as well as guidelines for the project partners regarding compliance with the rules for visibility of EU funding and security considerations applying to the project's dissemination and communication activities.

## 1.3. Structure of the document

The deliverable has been structured to present first an overview of the general communication and dissemination strategy and describe in more detail the tools and mechanisms that have been or will be developed and used by the TESTUDO partners to ensure the wide reach and efficiency of the communication and dissemination activities undertaken in the project. Following that, the document outlines the TESTUDO consortium's plan for future activities to be executed under WP11-12 to maximise the impact of the project and its results. Finally, the document describes main principles to ensure compliance with the rules for visibility of EU funding, data protection regulations and security considerations applying to the project's information sharing.



## 2. Communication and Dissemination Plan

TESTUDO's Communication and Dissemination Plan has been based on a focused strategy structured around the key objectives and the different target groups who must be influenced to achieve those objectives. According to the needs and interests of the target groups, including the general public, various communication and dissemination tools have been or will be developed in the project, taking into account also the security sensitiveness of the project (see section 5.1 for details).

### 2.1. Communication and Dissemination Strategy

TESTUDO communication and dissemination strategy is focused on maximising the expected impacts of the project centred around the creation of new knowledge, methodologies and technological advancements with consideration of societal and ethical implications of its results.

It has been targeted to evolve following the project progress and results achieved as well as the development of exploitation strategies and long-term sustainability plan, aiming to continue beyond the project's lifetime, which will cover both reviewing the current status and opportunities around resilience in critical infrastructure, approaching and understanding the target audience and their needs as well as integrating knowledge coming from other relevant multi-disciplinary research activities and industrial products in critical infrastructures, to establish collaboration and synergies that can contribute to the improvement and enrichment of TESTUDO developments and potentially open the path for new business cases.

The dissemination and communication activities in the project have been structured into a two part task, divided according to the project reporting periods (T11.1 – M01-M18 and T12.1 – M19-M36) which are aligned with works in other tasks under the WP11-12 (11.3, 11.4, 11.5) targeted at establishment of the exploitation plans, market analysis and providing the strategy for the long term sustainability as well as policy recommendations.

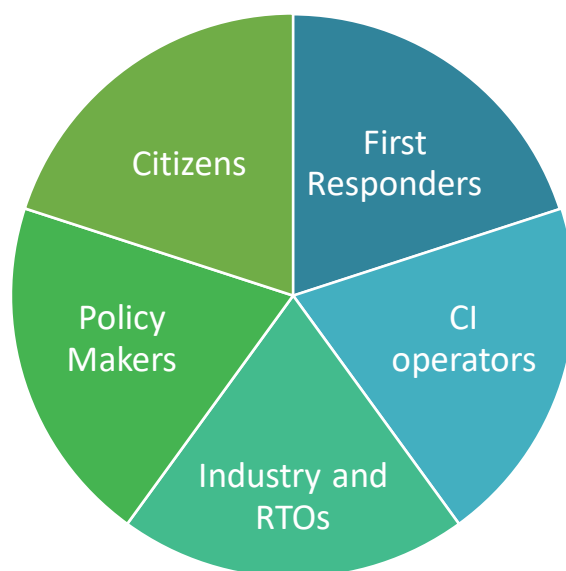
Therefore, the communication and dissemination efforts in the first reporting period of the project will focus on the activities aimed at familiarising the wide audience with the project – introducing its motivation, goals and main assumptions as well as updating on the project progress. The first publishable results will be released, with consideration of information security aspects (see section 5.1).

In the 2<sup>nd</sup> reporting period of the project, updates of the communication channels will be continued with the latest news and outcomes of the project, but more focus will be put on dissemination of the scientific and technical results produced and aligning the communication activities with the exploitation and post-project sustainability plans, as developed by other tasks in WP11-12.

Participation in conferences and other events as well as release of the peer reviewed publications will disseminate further the project results to motivate stakeholders. Organisation of project workshops, interviews and focus groups (under different Work Packages and tasks) and promotion of the TESTUDO product/services will sparkle business interest of future customers.

### 2.2. Target groups and key messages

The TESTUDO dissemination activities are focused on specific target groups that are directly concerned by the project results. Figure 1 presents the project's identified stakeholders groups, who should be reached with information and kept updated on the project developments.



**Figure 1.** TESTUDO stakeholders

The first and the foremost group to be targeted in the communication and dissemination efforts are the **End-users** whose awareness and acceptance of the project objectives, activities and results is a key factor for achieving success in project's execution and building a positive perception of the project in other environments. The target group of end-users of TESTUDO project are various **First Responders organisations** (Firefighters, Law Enforcement Agencies, Civil Protection, Medical Emergency Services) as well as **Critical Infrastructure operators**. Special focus should be given to dissemination enablers for the crisis management communities, considering CBRN threats and natural disasters acting as threat multipliers.

The activities aimed at proliferation of research results generated by the project must also reach **the scientific/technological professional community (industry and research organisations)**, as the new knowledge generated by TESTUDO should benefit a wider community of experts. Such exchanges with other researchers and engineers working on related R&D&I domains helps to avoid duplication of efforts, therefore, the open access to scientific publications and other results will be ensured.

Also, other important stakeholder groups have been identified to be kept constantly updated on the project achievements and engaged in different stages of the implementation via project's communication and dissemination actions, namely: **local authorities & national/regional public bodies, public security agencies, private security companies, policy makers and standardisation bodies**.

Finally, one of the very important project stakeholders are the European citizens who should be informed about ongoing research, project concepts and objectives and their benefits to society, in order to overcome the misperception and reluctance towards the technology advancements in security and to build a better understanding and acceptance for investments in security R&D&I. It is a responsibility of the researchers, as practitioners, to ensure that the EU community is engaged as widely as possible, informed about the technologies under development and shares the decisions about how this technology should fit into European societal and political roadmaps. Therefore, the project will engage in effective

public dissemination activities through social media outreach (constantly updated project channels on LinkedIn and X) and participation in major events involving non-professional audience (e.g. Researcher's Night, national/regional/local Science Days etc.).

As the various audiences and project stakeholders have different needs and interests a preliminary set of key messages (Table 1) has been outlined aimed at communicating the project's objectives and its main results.

Target audience	Needs and interests	Key messages
First Responders	Being informed on new tools and technologies that may enhance their capabilities for facing complex situations related to different types of incidents.	TESTUDO project will provide innovative tools for prompt and more effective response to dangerous events, assistance in developing emergency response plans and monitoring, detecting and prevention of criminal activity.
CI operators	Being informed on new tools and technologies that may improve their efficiency and security of their operation.	TESTUDO will equip CI operators with innovative technologies reinforced with research tools for optimal response and prediction/prevention of threats.  Solutions proposed by TESTUDO will improve everyday operation providing more effective tools and processes for resilience against physical and cyber-attacks.
Industry and RTOs	Being informed on key discoveries and technology developments based on the study data and any relevant advances in knowledge.  Sharing scientific and technological results as well as research findings along with underlying data and models.	TESTUDO will develop innovative solutions, advance technologies as well as produce and share research findings within the following areas: <ul style="list-style-type: none"> <li>• Cognitive and Predictive Intelligence</li> <li>• Autonomous UxVs</li> <li>• Data fusion and knowledge extraction</li> <li>• Edge computing</li> <li>• Sensor technologies (including CBRN)</li> <li>• HMI</li> <li>• 3D mapping</li> <li>• XAI and Digital Twins technologies</li> <li>• Ethical and legal implications of the security research and technologies</li> </ul>
Policy makers	Being informed on R&D&I initiatives and latest technology developments aimed at improving the society's safety and resilience.	TESTUDO project will provide innovative technological solutions for faster and more effective response to dangerous events and for prevention of criminal activity.  TESTUDO will produce recommendations and actionable insights for planning CI related policies and for the EU Security market, with particular

	Being provided with policy recommendations that may stimulate investment in security R&D&I and foster the cooperation between public and private entities.	attention devoted to social, ethical, legal and privacy aspects.
Citizens	<p>Being informed on the on R&amp;D&amp;I initiatives supported by public funding.</p> <p>Being updated on the latest technology developments aimed at improving the society's safety and resilience.</p>	<p>TESTUDO is an international innovation project funded by the European Union under the Horizon Europe programme, aimed at strengthening the resilience of European infrastructures and their key critical assets (water supply, transportation structures and other) leading to the protection of the EU society, who will be less susceptible to threats.</p> <p>TESTUDO platform will limit the negative societal impacts of possible targeted attacks or natural disasters, minimising impacts on the smooth operation of societies and livelihoods.</p>

**Table 1.** Key communication messages for different target audiences

As TESTUDO consortium is composed of representatives of different types of organisations, at the partner level the communication and dissemination activities are grouped in 4 categories that will target the relevant environments, according to the legal status of the different beneficiaries, as presented in Table 2.

Organisation type	Partners	Main dissemination activities	Target audience
<b>RTOs</b>	CERTH, CENTRIC, CEA, PIAP, VICOM, SINTEF, DFKI, TEKN, LIF	<ul style="list-style-type: none"> <li>Scientific publications</li> <li>Social media</li> <li>Presentations, workshops and demonstrations</li> </ul>	Scientific community and practitioners in critical infrastructure protection.
<b>Large Industries</b>	NTTD-IT, ENG, PROS	<ul style="list-style-type: none"> <li>Online communication channels (websites, blogs, social media etc.).</li> <li>Public discussions and forums for the capital markets and their participants</li> </ul>	Regulatory Authorities/ Ministries, Municipalities, Scientific community, Security Managers of Critical Infrastructures, investors, shareholders, and general public.
<b>SMEs</b>	ACCELI, STWS, T4I, DRAXIS, ADS, DBC	<ul style="list-style-type: none"> <li>Participation in scientific conferences, workshops and exhibitions</li> </ul>	CI operators/owners, Regulatory Authorities/ Ministries, FRs and LEAs

<b>CI operators</b>	EYDAP, INTER	<ul style="list-style-type: none"> <li>Using their commercial profile and expertise through its existing portfolio and marketing tools (website, social media, newsletter)</li> <li>participation in scientific conferences and international expos.</li> </ul>	Regulatory Authorities/ Ministries, Municipalities, Scientific community, Security Managers of Critical Infrastructures, investors, shareholders, and general public
---------------------	--------------	---	--

**Table 2.** Dissemination activities and target groups at partner level

### 2.3. Communication and dissemination tools and materials

According to the aforementioned dissemination and communication strategy to meet the needs and interests of the different target groups, including the general public, the following dissemination tools and channels will be used to communicate the key messages to the targeted audiences:

- **creation of the TESTUDO Stakeholders Community** to establish a broad dialogue, collect feedback on expectations and existing practices and communicating back to create large awareness, which is paramount to preparing the future acceptance and uptake of project results. This is fostered by implementation of Task T11.2 as well as active participation or liaison of the project partners with external initiatives, such as e.g. CERIS – Community for European Research and Innovation for Security<sup>1</sup> or ECSCI – European Cluster for Securing Critical Infrastructures<sup>2</sup>;
- **creation of the unified visual identity** for the project, including the project logo, templates of presentations and other communication materials;
- **launch of the project public website** covering general information about the project, its partners, and the crucial project results and achievements, including all the public deliverables, project related publications, brochures, presentations and any other material, which may be generally distributed;
- **establishment of the project social media accounts** (X (formerly Twitter), LinkedIn) that include updates about the most important news and events related to the project;
- **preparation of the dissemination/advertising materials** of a high quality and in a standardised format, i.e. project leaflet, poster, roll-up – both in digital and printed versions to be distributed/presented via online means and at physical meetings and events;
- **an annual publication of the project newsletter** to present and make the information about the project progress, in particular its results and achievements, widely available;
- **production of the dissemination videos** explaining project objectives and goals, to illustrate the scientific and practical benefits resulting from the project and its outcomes;
- **media-related actions (press releases, interviews)** undertaken, whenever appropriate (considering the security sensitivity of the project), to strengthen the impact of the project dissemination and

<sup>1</sup> [https://home-affairs.ec.europa.eu/networks/ceris-community-european-research-and-innovation-security\\_en](https://home-affairs.ec.europa.eu/networks/ceris-community-european-research-and-innovation-security_en)

<sup>2</sup> <https://www.finsec-project.eu/ecsci>

communication activities and to reach the widest possible audience within the end-user community and the general public;

- **liaison with related research initiatives** including collaborations with the on-going and newly launched Horizon Europe projects, networks and clusters as well as national research programmes;
- **dialogue with policy makers** via policy briefs and reports, stakeholder workshops and meetings, digital communication and engagement with project's Advisory Boards (Security & Ethics), which include representatives from policy-making bodies and relevant authorities;
- **research papers (including Open Access)** published in dedicated journals in the field of security, FRs and CIs specific topics as well as related technical domains;
- organisation and participation in **congresses, workshops, symposia, conferences and exhibition fairs** – both at the EU, national and local level.

Part of the above mentioned activities will be addressed and executed under other tasks of WP11-12, namely:

- creation of the TESTUDO Stakeholders Community and liaison with related research initiatives will be addressed within the **Task T11.2. Standardization activities and development of stakeholder network** that is devoted to coordinating the standardisation activities and contributions relevant to TESTUDO's objectives as well as to targeting collaboration activities with ongoing projects at European and national level in related fields and fostering a strong collaboration with the project's community.
- **dialogue with policy makers** will be established under the **Task 11.5 Impact in EU policy for critical infrastructure protection** that is focused on design and delivery of a recommendation for Policy framework and the EU Security market study to consider open issues related to the different stages of the project.

These activities will be elaborated and reported in more details in dedicated deliverables D11.2 and D11.3 respectively.

### 2.3.1. Dissemination of project results

The research results of TESTUDO will be made publicly available and accessible with consideration the information security principles established in the project (see section 5.1).

In terms of publications, the TESTUDO partners will actively seek opportunities to publish and present their work in recognised scientific venues relevant to their respective fields. The primary ambition of the TESTUDO consortium is to generate at least 15 scientific or academic open access publications, including both journal articles and conference proceedings.

The relevant journals and conferences include (not exhaustive list):

- **Conferences and workshops:**
  - Cyber Security for Critical Assets Europe (CS4CA)
  - International Conference on Critical Information Infrastructures Security (CRITIS)
  - Critical Infrastructure Protection & Resilience Europe
  - IFIP Working Group 11.10 on Critical Infrastructure Protection

- CRESTCon - The technical cyber security industry conference
- International Defense and Homeland Security Simulation Workshop
- European Safety and Reliability Conference (ESREL)
- International Conference on Information Systems for Crisis Response and Management (ISCRAM)
- Risk-In
- International Conference on Unmanned Aircraft Systems (ICUAS)
- Aerospace Tech Week,
- IEEE SENSORS
- **Journals:**
  - International Journal of Protective Structures
  - International Journal of Information Security
  - International Journal of Critical Infrastructure Protection
  - Security Journal
  - IEEE Transactions on Image Processing
  - Safety
  - International Journal of Intelligent Unmanned Systems
  - Journal of Intelligent and Robotic Systems: Theory and Applications
  - International Journal of Robotics and Mechatronics
  - Journal of Unmanned Vehicle Systems
  - Sensors
  - IEEE Sensors Journal
  - Journal of Cybersecurity
  - International Security Journal (ISJ)

The project will produce 5 deliverables with PUBLIC dissemination level that will be made available via the project website, once accepted by the EC:

- D1.3 Mid-term review and progress report
- D2.2 Public activity report
- D11.1 Dissemination plan and communication materials
- D11.3 Exploitation plans and impact pathways assessment
- D12.2 Market analysis, final impact assessment and policy recommendations

The project plans to produce various open access results in terms of research data, scientific publications, models and software, following the basic principles:

- **Open access and data:** All scientific publications related to project results will be available in open access platforms (e.g. Open Research Europe<sup>3</sup>, Zenodo<sup>4</sup>) at the maximum level, ensuring the data to be will be as open as possible (to ensure reproducibility and reuse) and as close as necessary (to allow for protection of results).

---

<sup>3</sup> <https://open-research-europe.ec.europa.eu/>

<sup>4</sup> <https://zenodo.org/>



- **Open source:** The open-source models, algorithms, designs, and software that will be developed by TESTUDO will be published on open repositories (e.g. GitHub<sup>5</sup>) with open licences (e.g. Apache<sup>6</sup>) to the maximum extent possible.

All the data to be collected and generated throughout the project will follow the FAIR principles, while also open dissemination strategies will be used to ensure the widespread dissemination of the project's results to all interested and relevant stakeholders.

The details of the knowledge management approach and strategy as well as an preliminary outline of the data to be generated in the project have been described in deliverable D1.2 – Initial data management plan, produced within the Task T1.4.

## 2.3.2. Communication materials

In order ensure that the project and its results are communicated with a coherent and interesting message and presented in an attractive way for various audiences, a first part of communication materials has been developed and made available to all partners as well as publicly (online). An overview of these materials and the future plan for further expanding and updating the communication toolkit is presented in the following sub-chapters.

### 2.3.2.1. Visual identity

TESTUDO's visual identity has been developed by the Task 11.1 Leader (PIAP) using professional graphic design services, basing on the draft design from the proposal stage. Its primary element is the project logo (Fig. 2) that has been modified to include the project title and acronym and prepared in different variants and formats for different uses according to the needs. The design patterns and colour scheme of the logo was the reference for other graphic elements used for dissemination materials (e.g. leaflet, poster) and it was aligned with the selected design/template of the project website.

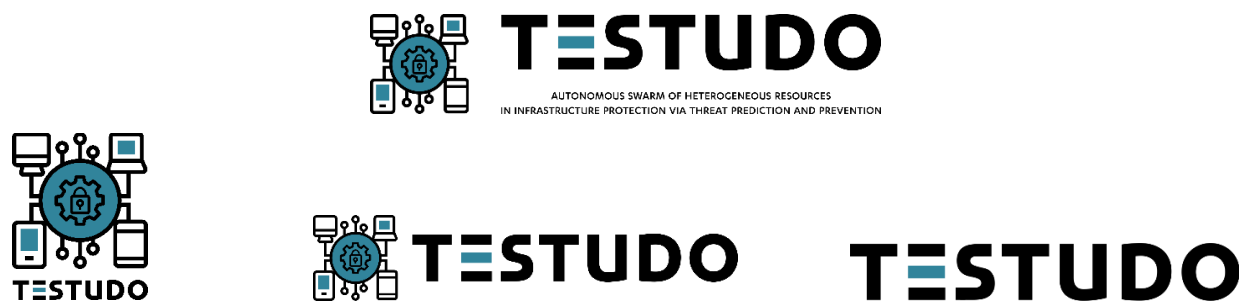


Figure 2. TESTUDO logo in different variants

### 2.3.2.2. Project webpage

[TESTUDO project public website](#) has been launched in M03 in its preliminary version, including only basic general information about the project and its partners.

The updated version of the website has been launched in M05 and includes also sections related to the main project concept and technological assets, envisaged trials/use-cases, dissemination and

<sup>5</sup> <https://github.com/>

<sup>6</sup> <https://www.apache.org/licenses/>



communication activities (including collaborations with other projects and initiatives) as well as news on project advancements and events.

The website has been designed to be transparent and informative for a variety of audiences, including the general public, providing all the necessary information on the project in an appealing and user friendly manner, so not to overload the viewer with any unnecessary or distractive elements. The content has been carefully selected and revised to comply with the project's information security principles and it has been illustrated with thematic pictures and graphics, aligned with the visual identity of the project. The overview of the current webpage structure is presented in Figure 3 and the snapshots of its appearance are shown in Figure 4.

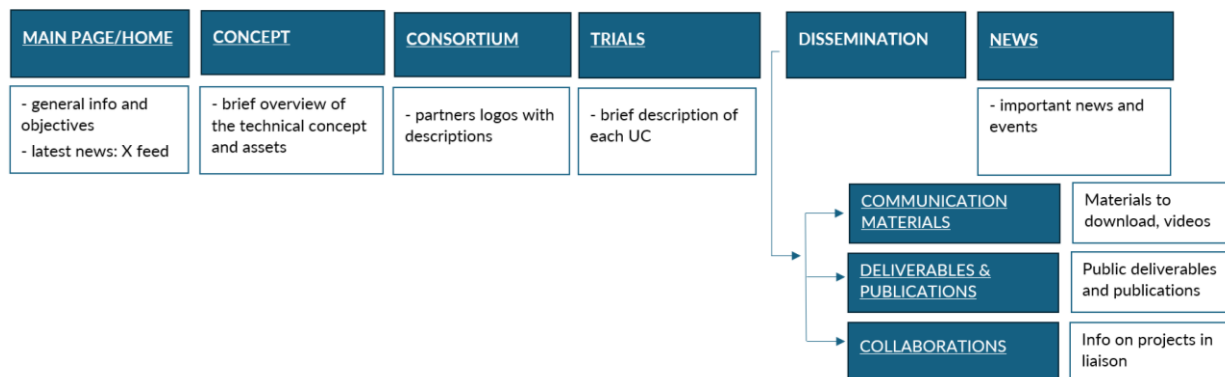


Figure 3. TESTUDO website structure

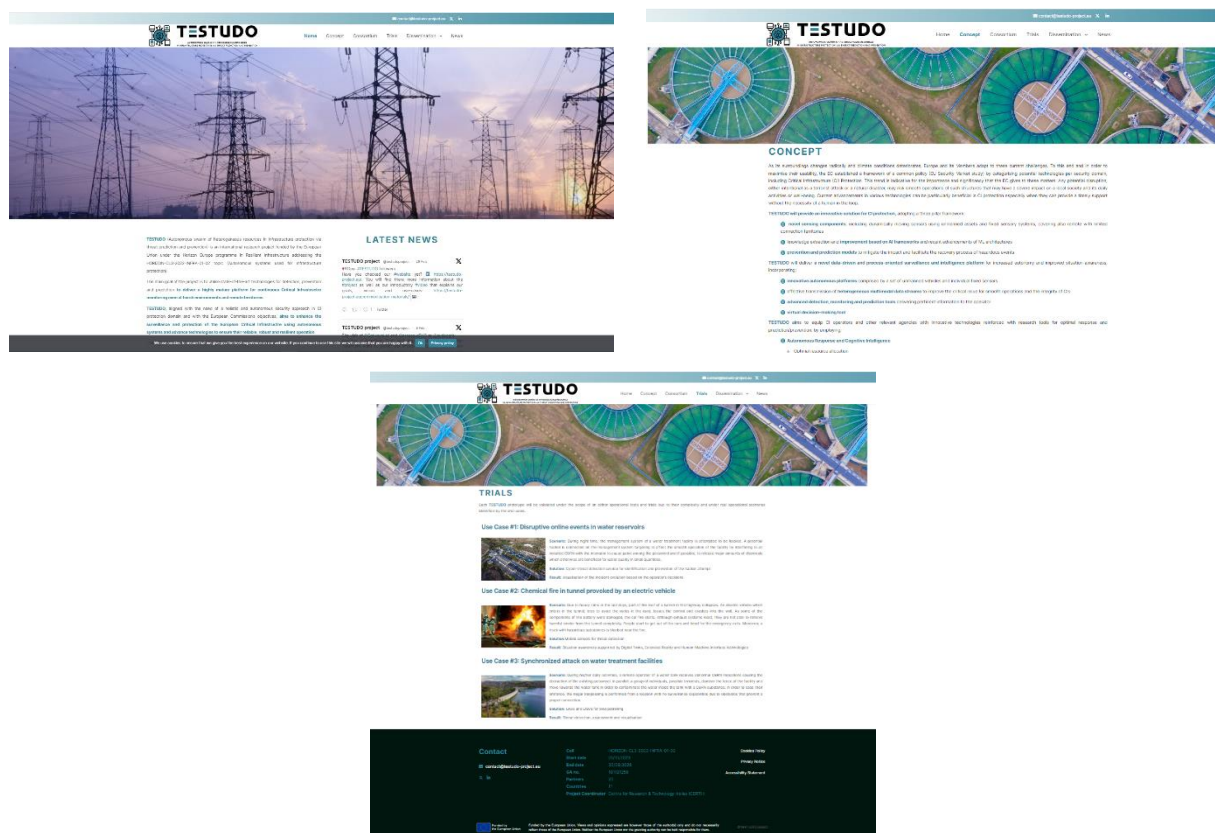


Figure 4. TESTUDO public website (snapshots of the Home page, Concept and Trials tabs)

TESTUDO's website is administered by the T11.1 Leader and has been developed with an outlook to be continuously evolving – in alignment with the project progress – to include and highlight the crucial project results and achievements, including all the public deliverables, project-related publications, dissemination and communication materials (leaflets, posters, newsletters, videos etc.) and any other material which may be generally distributed.

As the activities of other tasks under the WP11-12 (11.3/12.3, 11.4/12.4, 11.5/12.5) will progress and produce more detailed results regarding the market positioning of TESTUDO results, plans for their exploitation and the strategy for the long term sustainability and post project legacy, the website may also be adapted to include new sections and content oriented towards fostering the uptake of TESTUDO project results.

### 2.3.2.3. Social media

Project social media accounts have been launched in M02 ([X](#), [LinkedIn](#)) as they enable reaching the widest audience (both general public as well as professional and research communities). TESTUDO social media channels (Fig. 5) are administered by the Task 11.1 Leader and will be kept updated with the most important news and events related to the project, information on the progress and main achievements (basing on inputs from all partners) and it will be used to create synergies in communication and dissemination activities with other projects and initiatives within the topics and domains relevant to the project.

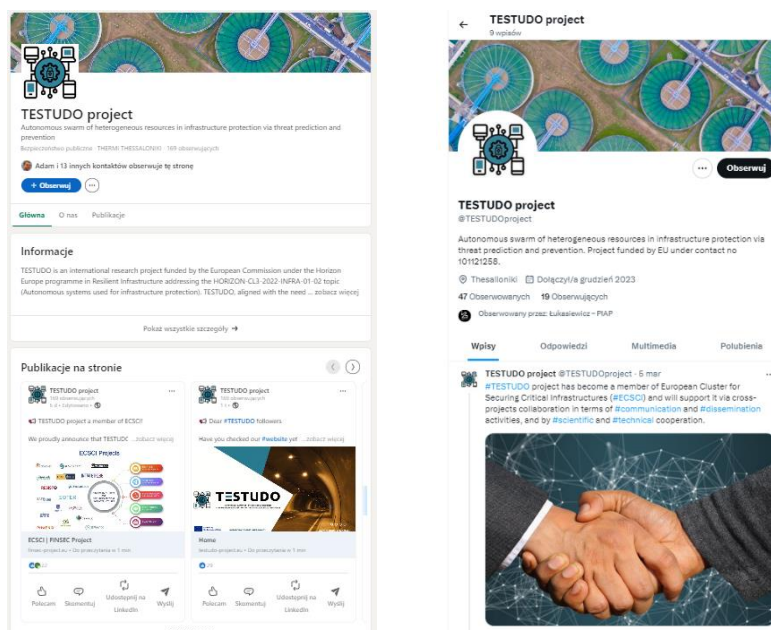


Figure 5. TESTUDO social media profiles (snapshots)

All partners will share information about the project progress, results and developed technologies, scientific publications, information on workshops, conferences, project meetings and other interesting events that should be announced via social media as well as project website.

The social media posts will include relevant tagging (e.g. of project partners organisations profiles) and hashtags to reach the widest possible audiences, encompassing inter alia: #HorizonEurope #research #innovation #security #criticalinfrastructure #resilience #firstresponders

### 2.3.2.4. Leaflet, poster and general project presentation

In order to support the communication and dissemination efforts of all partners, advertising materials of a high quality and in a standardised format have been prepared (Fig. 7), i.e. project leaflet, poster and roll-up (including versions for online use, self-print and professional print outs) to be distributed/used at meetings and events. The print-out versions of the leaflet and roll-up are initially available at the Task 11.1 Leader premises and can be distributed/shared between the partners by courier or post, as needed.

Prior to the release of the professional materials – shortly after the project launch in October – the opportunity arose to promote the project during a large international event ([VERIFIN international workshop on Chemical Warfare Agents](#)), as one of the partners (T4i) has already had scheduled participation with a stand. Therefore, the T11.1 Leader has prepared in-house a preliminary version of the project's leaflet/flyer to be printed and distributed at the event (Fig. 6).



Figure 6. TESTUDO preliminary version of the leaflet/flyer

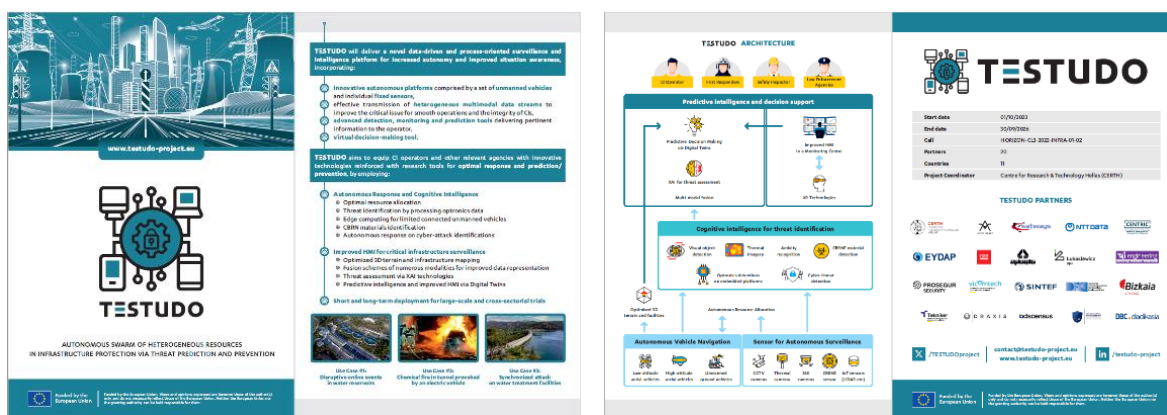






Figure 7. TESTUDO leaflet, poster and roll-up (digital versions)

In addition, the general project presentation (Fig. 8 and attached as Appendix 1) that contains the main facts and figures about the project and explains its main objectives and assumptions has been provided. It can be used by all partners to prepare individual presentations for different occasions.



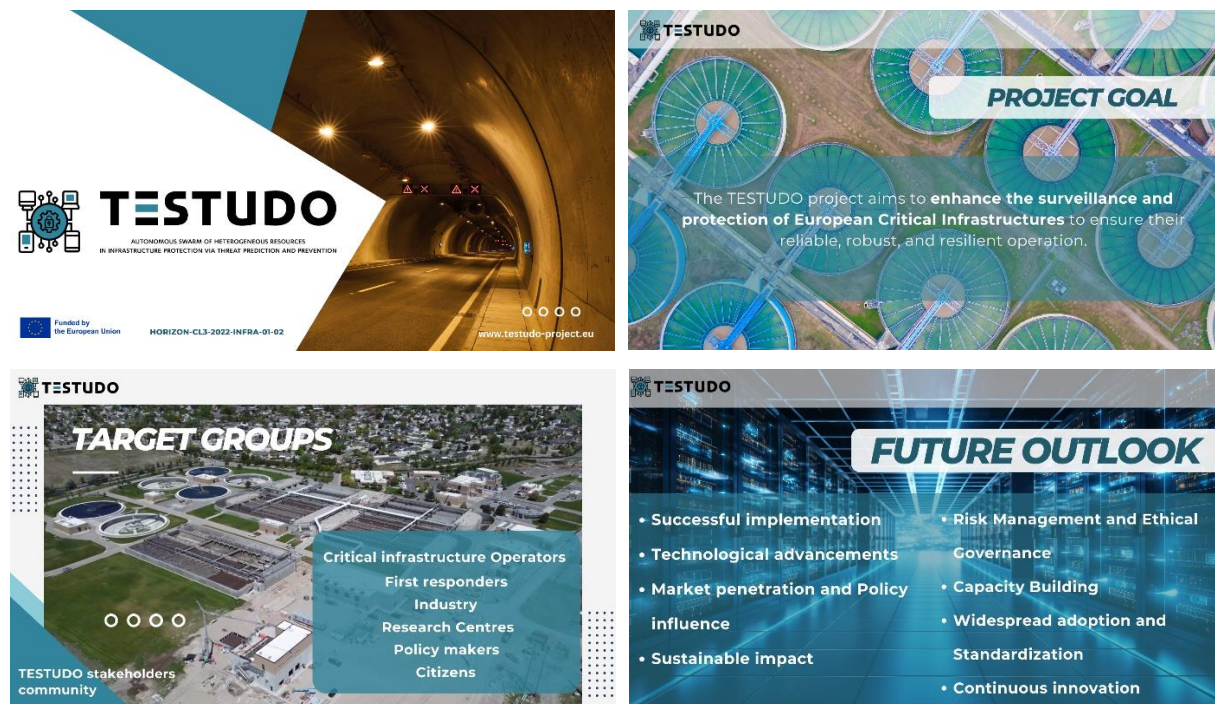
Figure 8. TESTUDO general presentation (selection of slides)

### 2.3.2.5. Project videos

To ensure good visibility of the project already from the very beginning and equip the consortium with different types of communication materials for various occasions, a short introductory video has been prepared jointly by the leaders of WP11-12 and Task 11.1. While more video materials are planned to be produced by the TESTUDO consortium at the later stages of the project, this simple video was aimed at

giving a brief overview of the project objectives and goals and has been designed for use via online means (website, social media) as well as at events where it can be displayed on the screen at the stand e.g. fairs or exhibitions.

The introductory video has been delivered to all the partners in the MP4 format via the project SharePoint, published at the project website (<https://testudo-project.eu/communication-materials/>) and advertised via the project social media channels. Snapshots from the video are presented in Figure 9.



**Figure 9.** TESTUDO introductory video (selection of stills)

In the first reporting period, another professional promo video will be produced – oriented towards presenting the progress of the project and expected results, suited to the security domain in which TESTUDO is positioned – it will either be based on stock thematic materials or real-life recordings of the project technologies in action (depending what will available).

Additional project videos (professional or amateur – made by partners) will be discussed within the consortium and prepared both for documentation and dissemination purposes – focused on presenting the work in progress as well as documenting the trials, which constitute the main pinpoint of the project.

All video materials will be revised regarding the information security sensitivity aspects prior to their publication.

#### 2.3.2.6. Press release

In preparation for potential media related activities, the consortium has drafted a general press release (related to the launch of the project) that can be used to initiate the relevant actions, if appropriate.

The press release (Appendix 2) was prepared by the WP11.1 Leader with contributions from the Project Coordinator, WP11-12 Leader and end-user partners representatives, who are the most important voice

in explaining the necessity for the project's success to the wide public. The press release has been made available for [download via the project website](#).

If opportunity arises, further press/media releases will be prepared, concerning significant events and/or achievements of the project, especially these related to the project trials to be performed in the final stage of the project execution.

#### 2.3.2.7. Newsletter

The project newsletter will be designed that is going to be accessible through the website and social media of the project as well as distributed via partners networks and to the TESTUDO Stakeholders Community. Additionally, a subscription service for the newsletter will be ensured via the registration form accessible at the project website.

The newsletter will be issued annually, with the 1<sup>st</sup> issue to be prepared in September 2024 summarising the first year of the project execution and providing overview of the progress and achievements, technical insights, main events organised and attended by project partners as well as planned for the next period.

Two issues of the newsletter will follow in the second reporting period to summarise the progress and showcase the project achievements in the consecutive years.

If any significant progress and/or results will need to be announced in between, an additional, special issue of the newsletter will be prepared and distributed.

The overall design of the newsletter will be prepared by the WP11-12.1 Leader and all partners will provide inputs for the content.

### 2.4. Communication and dissemination KPIs

The success of the communication and dissemination activities of the TESTUDO consortium will be evaluated based on the specific KPIs (Table 3) that will be monitored throughout the project lifetime.

Tool/means	Target KPI
<b>Communication</b>	
<b>Website</b>	Measurement via Google Analytics: 20% visits increase every year Total visits: 10000 Downloads of publicly available online material: 300 downloads
<b>Social Media</b>	At least 1 post per month across all social media platforms 300 views on LinkedIn 100 tags and followers on X
<b>Newsletter</b>	At least 3 (annually created) 100 readers (number of downloads from the website + deliveries to subscribers)
<b>Dissemination</b>	
<b>Stakeholder Forum/User Group</b>	Number of participants: > 50 with at least 3 from each CI
<b>Workshops</b>	4 workshops: 1 scientific workshop collocated with a Rank A conference with > 20 participants

	3 workshops (roadshow events) focusing on the project demonstration to security authorities (organised under WP10)
<b>Info Days</b>	3 events (organised under WP10 along with the trials)
<b>Publications</b>	At least 15 scientific or academic open access publications

**Table 3.** Communication and dissemination KPIs

## 2.5. Communication & dissemination info collector

In order to coordinate the various communication and dissemination efforts of different partners a common reporting sheet – Communication&dissemination list – has been proposed by the T11.1 Leader, where the information both on the activities performed and planned, as well as the potential dissemination opportunities (e.g. events of possible importance to TESTUDO, that could be performed jointly or by other project partner) are collected. This Communication&dissemination activities collector sheet is available at the project repository for continuous reporting by partners as well as circulated as a reminder by the Task 11.1/12.1 Leader for regular updates every 6 months.

The list covers collection of the following categories of information:

- Partner submitting
- Presentation/publication/activity title/scope
- Archive (if the activity results in a format, which can be archived (e.g. publication in a newspaper)
- Event's or medium name
- Type of event/ medium (e.g. Internet, Conference/fair/trade show, Workshop/seminar, Professional/scientific journal, etc.)
- Location (country, city etc., if applicable)
- Event's/medium territorial scope (e.g. Individual, Local, National, EU, etc.)
- Event's/medium/activity target audience (e.g. End-users, Research/scientific community, etc.)
- Date of the event/ publication/ activity
- Status (Planned/performed)
- Event/medium website or contact data
- Short description of the event/medium character or additional info

The overview of activities reported by TESTUDO consortium in the first six months of project execution and planned for the next stages is provided in the next chapters.

## 3. Communication and dissemination activities

### 3.1. Activities performed in the first six months of project implementation

In order to meet the project communication and dissemination objectives and KPIs the TESTUDO consortium has already started to perform different types of activities that are summarised in Table 4 below (for the period from October 2023 to March 2024). The majority of these activities has been focused on online means, since the project has been launched just before the Winter period (including Christmas break), thus it is expected that a more intensive events participation and other types of activities will be coming in the months following the submission of this deliverable, as well as throughout the next stages



of the project (e.g. scientific publications). The overview of indicative activities planned by the TESTUDO partners and to be performed under tasks T11.1/T12.1 is presented in the next sub-section.

Type of activity	Number	Examples
Presentations/attendance at events and meetings (with distribution of leaflets)	1	<a href="#">VERIFIN international workshop on Chemical Warfare Agents</a>
Internet/social media activities	>40	Social media posts (on the project and individual partners channels), presentations and news items on partners websites
Liason with other initiatives	1	Joining the <a href="#">European Cluster for Securing Critical Infrastructures</a>

**Table 4.** Summary of the communication and dissemination activities performed in the first six months of the project

### 3.2. Future plans

Following the communication and dissemination plan, preliminary outlined in the GA and in the hereby deliverable, the TESTUDO consortium intends to perform variety of the activities aimed at maximising the visibility, positive perception and impact of the project results.

TESTUDO partners will attend relevant conferences, workshops and events – some of them have already been reported as summarised in Table 5 with examples of targeted events.

Type of activity	Number	Examples
Papers publication	1	Publication on UAV technologies in TESTUDO
Presentations at events and meetings (incl. distribution of leaflets, posters presentation etc.)	8	European Robotics Forum 2024/2025, International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom), European Cyber Week, Researcher's Night Event
Internet/social media activities	>30	Social media posts (on the project and individual partners channels), presentations and news items on partners websites
Trade fairs/industry shows attendance (stand, leaflet distribution etc.)	3	AR Expo24 1st Automations & Robotics Expo, 88th International Fair of Thessaloniki, Beyond Expo

**Table 5.** Overview of the communication and dissemination activities planned by the TESTUDO partners

Moreover, the consortium will make efforts to liaise and collaborate with similar EU projects, both by using TESTUDO partners contacts and networks, links from the European Cluster for Securing Critical Infrastructures as well as via monitoring the EU portals (e.g. Funding&Tenders, Cordis) and identifying the ongoing and newly funded projects that conduct research works and networking activities over the topics relevant to TESTUDO. Project social media profiles will also be used to establish such links to mutually strengthen the outreach and cross-communicate important information.



The preliminarily identified collaboration opportunities include the following Horizon Europe projects (non-exhaustive list):

- LAZARUS – pLatform for Analysis of Resilient and secUre Software (<https://lazarus-he.eu/index.php>)
- eFORT – Establishment of a FramewORk for Transforming current EPES into a more resilient, reliable and secure system all over its value chain (<https://efort-project.eu/about/>)
- ATLANTIS – Improved resilience of Critical InfrastRuctures AgainsT LARge scale transNAtional and sysTemic rISks (<https://www.atlantis-horizon.eu/>)
- DIREKTION – Disaster Resilience Knowledge Network promoting innovation, technology uptake and multi-stakeholder cooperation (formerly FIRE-IN, <https://www.fire-in.eu/>)
- ENACT – European Network Against Crime and Terrorism (<https://enact-eu.net/>)
- EU-CIP – European Knowledge Hub and Policy Testbed for Critical Infrastructure Protection (<https://www.eucip.eu/>)
- HARPOCRATES – Federated Data Sharing and Analysis for Social Utility (<https://harpocrates-project.eu/>)
- DYNABIC – Dynamic business continuity of critical infrastructures on top of adaptive multi-level cybersecurity (<https://dynabic.eu/>)

Potential collaboration will encompass knowledge sharing and participation in workshops, webinars and other events, where the dissemination materials can be distributed and the presence of user groups is frequent. More clustering activities will be pursued and joint initiatives, such as participation in ECs Horizon Results Booster<sup>7</sup> will be considered.

The project website and social media accounts will be continuously updated (at least once a month) with all the up-to-date project-related information, including publication of the newsletter and other publishable materials as well as sharing information from other projects.

Deliverable D11.2 (to be delivered in M18) will specify on the individual dissemination plans of all partners and report on all the dissemination activities that were undertaken in the 1<sup>st</sup> period and those planned further, along with the networking, standardisation and policy making activities.

All the communication and dissemination activities performed and updates for future plans will be also reported in 12.1 Final activity report on dissemination and exploitation activities (PR2) as well as in Periodic Reports.

## 4. Contribution from other tasks

### 4.1. Standardisation activities

T4i engineering leads the Task T11.2 within the TESTUDO project, which focuses on standardisation activities and the development of a stakeholder network. As part of this task, T4i engineering has prepared a survey document to guide partners, especially those involved in Task T11.2.

---

<sup>7</sup> <https://www.horizonresultsbooster.eu/>

This document underscores the integration of TESTUDO with other relevant projects concerning standardisation efforts. Partners are directed to complete a provided template, which covers various areas such as existing standards, potential gaps in standards relevant to TESTUDO, other pertinent standardisation bodies and technical committees, as well as collaboration with ongoing projects.

The collected data aims to facilitate seamless integration and improve efficiency within the framework of Task T11.2. Figure 10 below (attached also as Appendix 3) presents the draft template for partners to fill in, while an updated document will feed into D11.2 [M18] along with the more detailed strategy on standardisation activities.

1. Existing standards

**Description:** Please provide a list of standards you are aware of (and/or have been using) in your domain, together with a brief description of how it has supported you in achieving your day-to-day goals. Please define the type of the standard, i.e. technical (e.g. USB interface) or operational (e.g. SOP in the calibration/maintenance of equipment).]

Standard	Type (Technical/operational)	Brief description

2. Potential gaps in standards

Please indicate (at least) 3 potential gaps in technical or operational standards you have identified, relevant to TESTUDO project.  
How would it affect your work if such standards were available? Please be as specific as possible.

3. Other Relevant standardization Bodies and/or Technical Committees

**Description:** In some cases, specific sectors or industries may have their own organizations or bodies that contribute to standardization efforts within their respective domains. Please provide information of any standardization body, more targeted to your domain and if you are aware of any technical committee associated with that standardization body.

Domain	Standardization Body	Technical committee

4. Collaboration with ongoing projects

**Description:** Please provide your experience and involvement in ongoing projects (European and National) related to the domains covered by TESTUDO. Provide examples in short description of how your involvement in these projects has contributed to your expertise or benefit your organization.

Project Title	Web page	Short description of standardization activity

**Figure 10.** Draft of survey document related to standardisation activities

## 4.2. Policy making related activities

DBC is the leader of Task 11.5 dedicated to ensuring that the insights and recommendations crafted within this task effectively inform EU policymakers and pertinent authorities. The preliminary strategy to accomplish this task (to be elaborated in details in deliverable D11.3) encompasses the following pivotal components:

- **Policy Briefs and Reports:** Concise, accessible policy briefs summarising the recommendations and insights from Task 11.5 will be prepared. These documents will be tailored to the interests and needs of policymakers and authorities, highlighting the implications and actionable steps that can be taken.
- **Stakeholder Workshops and Meetings:** Workshops and meetings with policymakers, relevant authorities, and other stakeholders will be organised by the consortium with T11.5 Leader facilitating their organisation. These events will serve as platforms for direct engagement, allowing findings to be presented, implications to be discussed, and feedback to be gathered to refine recommendations.
- **Collaboration with EU Projects and Networks:** Existing networks and collaborations with other EU projects will be leveraged to disseminate findings more broadly. Engagement with these platforms will ensure that insights reach a wider audience of policymakers and authorities across different sectors and countries.
- **Digital Dissemination:** Recommendations and insights will be shared with a broader audience through digital channels such as social media, newsletters, and the project website. This approach will help reach policymakers and authorities who are active online and prefer to consume information digitally.
- **Engagement with Advisory Boards:** The project's advisory boards (Security & Ethics), which include representatives from policy-making bodies and relevant authorities, will play a crucial role in disseminating findings. Active engagement with these boards will ensure that insights are considered and acted upon.
- **Publications in Policy and Industry Journals:** Articles will be published in journals and magazines read by policymakers and industry professionals to ensure that recommendations reach the intended audience. These publications will provide a more in-depth look at findings and their implications for policy and practice.
- **Direct Communication:** The project website will be utilised to make presentations public, ensuring that outcomes and results of each pilot use case are accessible. This approach targets a broad audience and ensures that information is readily available for policymakers and relevant authorities seeking to understand the project's insights in a concise format.

This strategy aligns with the objectives outlined in Tasks 11.5 & 12.5, which focus on influencing EU policy regarding critical infrastructure protection. By adhering to this approach, the project will endeavour to facilitate compliance with existing EU policy frameworks and contribute to the formulation of long-term policies, thereby fostering cooperation between public and private entities in this domain.

## 5. Compliance issues

### 5.1. Security sensitivity

The project concerns security and vulnerability assessment of critical infrastructures, including analysis of threats, thereby invoking security issues.

In order to address them properly, specific appointments have been made and mechanisms have been established in the project:

- **Project Security Officer (PSO)** who offers recommendations to the project partners regarding prevailing security frameworks and regulations, supports the TESTUDO consortium in addressing specific issues that may emerge in this context and guarantees the consistent adherence of all activities to the aforementioned frameworks. The PSO heads the Security Advisory Board.
- **Security Advisory Board (SAB)** which reviews all the project deliverables and other materials (in particular those to be used for public release), in order to assess whether they include any security sensitive information and propose their classification/declassification and other timely measures for preventing the disclosure of such information.

## 5.2. Visibility of EU funding

Following Article 17 of the Grant Agreement “COMMUNICATION, DISSEMINATION AND VISIBILITY”, all communication and dissemination activities related to the project – including media relations, conferences, seminars, information material (brochures, leaflets, posters, presentations, etc.), either in electronic form, via traditional or social media, as well as any infrastructure, equipment, vehicles, supplies or major result funded by the grant must acknowledge the EU support and display the European flag (emblem) with the funding statement (translated into local languages, where appropriate) as follows (either in horizontal or vertical format, as appropriate):



The image files with the emblem and funding statement can be downloaded from the EC's Download centre for visual elements at: [https://ec.europa.eu/regional\\_policy/information-sources/logo-download-center\\_en](https://ec.europa.eu/regional_policy/information-sources/logo-download-center_en)

The emblem must remain distinct and separate and cannot be modified by adding other visual marks, brands or text. When displayed in association with other logos (e.g. of beneficiaries or sponsors), the emblem must be displayed at least as prominently and visibly as the other logos.

Apart from the emblem, no other visual identity or logo may be used to highlight the EU support.

The communication or dissemination activity related to the action must use only factually accurate information and it must indicate the following disclaimer (translated into local languages where appropriate):

*"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or [name of the granting authority]. Neither the European Union nor the granting authority can be held responsible for them."*

Before engaging in a communication or dissemination activity expected to have a major media impact, the consortium must inform the EC/REA.

## 6. Conclusions

This deliverable presents the TESTUDO project Communication and dissemination strategy and plan, as agreed by the consortium for the whole duration of the project. The document includes an overview of the information and materials needed to facilitate the communication and dissemination efforts of TESTUDO partners, encompassing identification of the target groups and related key messages, overview of the communication tools, KPIs set to validate the success of dissemination activities as well as guidelines for the project partners regarding compliance issues with the rules for visibility of EU funding and security considerations applying to the project's dissemination and communication activities. The deliverable summarises briefly the dissemination and communication efforts of the TESTUDO partners in the first 6 months of the project as well as outlines the future prospects for these activities in the current and next reporting periods.

As described, the consortium is undertaking all the efforts to perform the dissemination and communication activities of different format – the project partners have already reported a number of events and initiatives they intend to participate in or undertake.

A number of actions have also been planned to extend the catalogue of tools and materials to be used for spreading the information about the project and attracting the relevant audience.

In addition, the project website and social media accounts will be continuously updated with all the up-to-date project-related information, including publication of the newsletters and other publishable materials.

All the communication and dissemination activities performed by TESTUDO consortium and continuous updates of further activities and plans will be reported in the next deliverables resulting from WP11-12 (D11.2 and 12.1) as well as in the Periodic Reports.



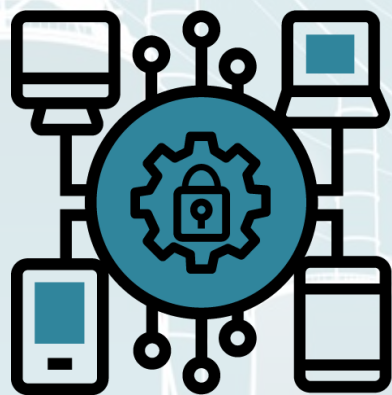
## Appendices

**Appendix I – General project presentation**

**Appendix II – Press release**

**Appendix III - Draft template of standardisation survey for partners**



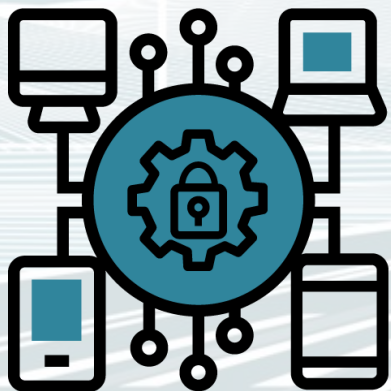


# TESTUDO

AUTONOMOUS SWARM OF HETEROGENEOUS RESOURCES  
IN INFRASTRUCTURE PROTECTION VIA THREAT PREDICTION AND PREVENTION

**HORIZON-CL3-2022-INFRA-01-02**

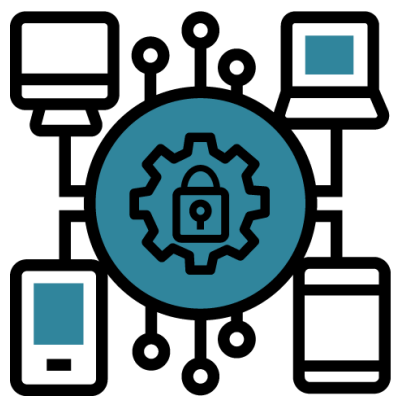




# TESTUDO

AUTONOMOUS SWARM OF HETEROGENEOUS RESOURCES  
IN INFRASTRUCTURE PROTECTION VIA THREAT PREDICTION AND PREVENTION





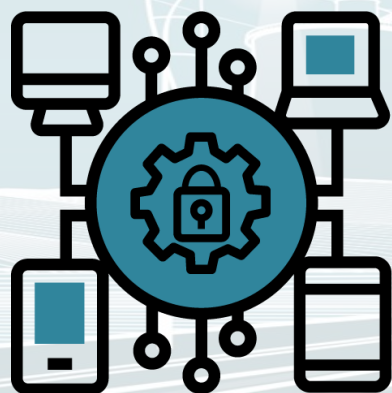
# TESTUDO

AUTONOMOUS SWARM OF HETEROGENEOUS RESOURCES  
IN INFRASTRUCTURE PROTECTION VIA THREAT PREDICTION AND PREVENTION



Funded by  
the European Union





# TESTUDO

AUTONOMOUS SWARM OF HETEROGENEOUS RESOURCES  
IN INFRASTRUCTURE PROTECTION VIA THREAT PREDICTION AND PREVENTION



Funded by  
the European Union

---

**HORIZON-CL3-2022-INFRA-01-02**

Innovation action project funded by the European Commission  
from Horizon Europe Programme under GA no. 101121258

<b>Start date</b>	01/10/2023
<b>End date</b>	30/09/2026
<b>Call</b>	HORIZON-CL3-2022-INFRA-01-02
<b>Partners</b>	20
<b>Countries</b>	10
<b>Project Coordinator</b>	Centre for Research & Technology Hellas (CERTH)

- ⚙️ Addresses the problem of the threat to European Critical Infrastructures by increasing their resilience to complex attacks and hazards
- ⚙️ Equips CI operators with innovative technologies for improved preparedness, early prevention and faster response to threats

- ⚙️ To provide innovative solutions for protection of Critical Infrastructure in long-term deployment
- ⚙️ To incorporate the state-of-the-art technologies for detection, prevention and prediction of threats
- ⚙️ To support CI personnel in reducing the response time to a threat and minimise potential escalation of danger

- ⚙️ Provide autonomous surveillance by synergic operation of unmanned vehicles and fixed resources
- ⚙️ Ensure stable, secure and high-bandwidth communication between assets
- ⚙️ Improve threat detection, assessment and risk prediction with AI-based cognitive models
- ⚙️ Increase situation awareness via novel HMI technologies
- ⚙️ Test proposed solutions in the series of use-cases
- ⚙️ Identify potential uptakes and create impact on stakeholders

# Disruptive online events in water reservoirs

- ⚙️ **Scenario:** Risk of water contamination
- ⚙️ **Solution:** Cyber-threat detection service for identification and prevention of the hacker attempt
- ⚙️ **Result:** Visualisation of the incident evolution based on the operator's decisions





# Chemical fire in tunnel provoked by an electric vehicle

- ⚙️ **Scenario:** Dispersion of toxic gases
- ⚙️ **Solution:** Mobile sensors for threat detection
- ⚙️ **Result:** Situation awareness supported by Digital Twins, Extended Reality and Human-Machine Interface technologies

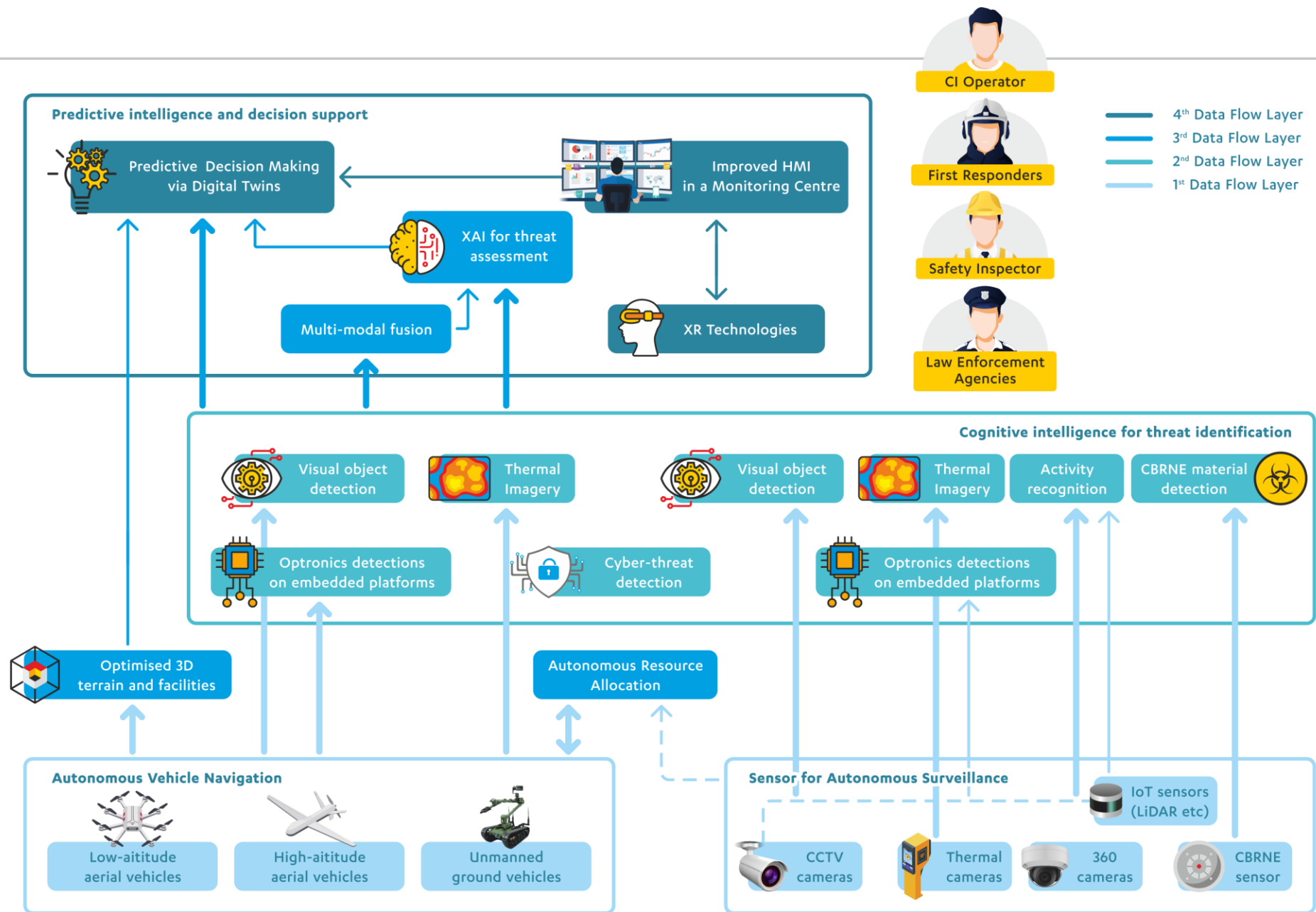




# Synchronized attack on water treatment facilities

- ⚙️ **Scenario:** Water contamination and simultaneous cyber-attack
- ⚙️ **Solution:** UAVs and UGVs for area patrolling
- ⚙️ **Result:** Threat detection, assessment and visualisation





## 20 Partners from 10 EU and 2 non-EU countries

- ⚙️ **2 CI operators** (EYDAP, INTER)
- ⚙️ **8 RTOs** (CERTH, CENTRIC, CEA, PIAP, VICOM, SINTEF, DFKI, TEKN)
- ⚙️ **6 SMEs** (ACCELI, STWS, DRAXIS, ADS, DBC, T4i)
- ⚙️ **3 Large Industry** (NTTD-IT, ENG, PROS)
- ⚙️ **1 NGO** (LIF)



Created with mapchart.net

# TESTUDO PROJECT PARTNERS





[/TESTUDOpject](#)



[/testudo-project](#)



[contact@testudo-project.eu](mailto:contact@testudo-project.eu)  
[www.testudo-project.eu](http://www.testudo-project.eu)



Funded by  
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



# TESTUDO

AUTONOMOUS SWARM OF HETEROGENEOUS RESOURCES  
IN INFRASTRUCTURE PROTECTION VIA THREAT PREDICTION AND PREVENTION

## Enhancing protection and resilience of European Critical Infrastructures

*The EU-funded project TESTUDO aims to revolutionize the protection of European CIs by integrating innovative autonomous systems, advanced technologies and multidisciplinary expertise*

The reliable, robust, and resilient operation of Critical Infrastructures is considered more than essential for the security, well-being, and economic growth of European citizens. The CIs should be operated with a sufficient flexibility within a rapidly evolving social-technological and threat environment.

Recent alterations in Europe and beyond its borders have shown the devastating effects of critical infrastructure being destroyed.

The CI operators require innovative technologies that can be adapted to different operational needs and provide the complete tactical picture with decision making support for the effective and coordinated response in hazardous events and large-scale attacks.

The TESTUDO EU Horizon Europe funded project, developed under the coordination of the Centre for Research and Technology Hellas (CERTH) together with 19 European partners, has the aim to develop and demonstrate a novel data-driven and process-oriented surveillance and intelligence platform for increased autonomy and improved situation awareness employing innovative autonomous ground and aerial platforms, state-of-the-art sensors and AI technologies.

The project aims to equip CI operators and other relevant agencies with innovative technologies reinforced with research tools for optimal response, prediction and prevention in case of complex attacks, pandemics or natural and man-made disasters.

Project results will be validated via three large-scale pilot trials covering different scenarios, including disruptive online events in water reservoirs, chemical fire in tunnel provoked by an electric vehicle and synchronized attack on water treatment facilities. The demonstrators will be located in Greece and Spain.

The TESTUDO consortium brings collaboration between an interdisciplinary team of individuals and organizations with an extensive experience in the interdisciplinary research on CI protection and autonomous surveillance to deliver the core objectives of the project. The consortium of 20 partners from 11 European countries consists of 2 CI operators (EYDAP, Interbiak Bizkaia, S.A.), 8 research centres with diverse expertise (CERTH, CENTRIC, CEA, Łukasiewicz-PIAP, VICOMTECH, SINTEF, DFKI, TEKNIKER), 6 SMEs (ACCELIGENCE, Satways, T4i engineering, DRAXIS, Adscensus, DBC Business Consulting), 3 partners from the Large Industry (NTT DATA, Engineering Group, Prosegur) and one NGO (Law and Internet Foundation).

Konstantinos Ioannidis (Deputy Coordinator, CERTH), commented: *TESTUDO aims to deliver a fully functional and validated prototype that will cover diverse operational scenarios in challenging environments for CI protection. The system will provide the capability of operating under any condition performing long-term operations and incorporating technologies to this direction. Autonomy, as the core objective of the project, targets on designing and incorporating capacities that inherently integrate autonomy functionalities using heterogeneous assets including unmanned vehicles and an interoperable network of fixed sensors. The developed platform will allow for the effective and efficient preparedness and prevention of hazardous incidents that may severely impact the smooth operations of Critical*



*Infrastructures. To this end, detection and identification through cognition, prevention and coordinated response will complement autonomy functionalities on the unified TESTUDO framework. The consortium adopts an escalated development approach meaning that each prototype will incorporate specific features to conclude to the final TESTUDO prototype which will integrate all functionalities. Every prototype will be validated within the scope of real operational scenarios and under diverse threats. Finally, the TESTUDO consortium is comprised of various beneficiaries with different expertise that can cover different aspects of the project so that we could deliver a fully operational system compliant with all the necessary legal/ethical frameworks.*

Kostas Peroulis, (EYDAP, WP10 and UC#1 & UC#3 Leader), said: *EYDAP acknowledges the pressing challenges facing water infrastructure security, and TESTUDO emerges as a crucial initiative in addressing these concerns. As the largest drinking water and sewerage company in Greece, serving over 40% of the population, ensuring the uninterrupted flow of clean drinking water is our top priority. TESTUDO's innovative approach, leveraging cutting-edge technologies like artificial intelligence and cybersecurity, holds immense promise in enhancing the resilience and security of our critical infrastructure. By proactively addressing cyber and physical threats, we anticipate significant improvements in our ability to maintain reliable water services and protect public health. We are committed to collaborating closely with our partners to deliver impactful solutions that benefit our communities and ensure a sustainable future for generations to come.*

Erika Nika (Leader of Dissemination and Exploitation, DBC), stated: *Through strategic dissemination efforts, we aim to amplify the impact of TESTUDO's innovations, ensuring that the advancements made in autonomous systems, advanced technologies, and multidisciplinary expertise reach key stakeholders, policymakers, and the wider public. By fostering greater awareness and understanding of the project's objectives and outcomes, we strive to catalyze meaningful dialogue, drive informed decision-making, and ultimately enhance the security and well-being of European citizens. Moreover, our consortium is committed to maximizing the practical application and commercial potential of our research findings. Through targeted dissemination strategies and engagement with industry partners, we aim to facilitate the uptake of TESTUDO's solutions, fostering innovation.*

TESTUDO has been officially launched on the 1st of October 2023 and it will take 3 years to reach its operational goals.

**General information on the project** can be found at: [www.testudo-project.eu](http://www.testudo-project.eu)

**For more information please contact:** [contact@testudo-project.eu](mailto:contact@testudo-project.eu)

## **Acknowledgements**

The TESTUDO project has received funding from the European Commission under the Horizon Europe programme, GA no. 101121258.



**Funded by  
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

## 1. Existing standards

**Description:** Please provide a list of standards you are aware of (and/or have been using) in your domain, together with a brief description of how it has supported you in achieving your day-to-day goals. Please define the type of the standard, i.e. technical (e.g. USB interface) or operational (e.g. SOP in the calibration/maintenance of equipment).

Standard	Type (Technical/operational)	Brief description

## 2. Potential gaps in standards

Please indicate (at least) 3 potential gaps in technical or operational standards you have identified, relevant to TESTUDO project.  
How would it affect your work if such standards were available? Please be as specific as possible.

--

## 3. Other Relevant standardization Bodies and/or Technical Committees

**Description:** In some cases, specific sectors or industries may have their own organizations or bodies that contribute to standardization efforts within their respective domains. Please provide information of any standardization body, more targeted to your domain and if you are aware of any technical committee associated with that standardization body.

Domain	Standardization Body	Technical committee

## 4. Collaboration with ongoing projects

**Description:** Please provide your experience and involvement in ongoing projects (European and National) related to the domains covered by TESTUDO. Provide examples in short description of how your involvement in these projects has contributed to your expertise or benefit your organization.

Project Title	Web page	Short description of standardization activity