



COoperative Cyber prOtectiON for modern power grids

D9.3 Report on the 1st dissemination period

Distribution Level	PU
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Definition of Acronyms

AS	Ancillary Service
BSPs	Balancing Service Providers
CNI	Critical National Infrastructure
CPN	COCOON Programmable Node
CTD	COCOON Toolset Dashboard
CUE	Cuerva
DRES	Distributed Renewable Energy Sources
DCP	Dissemination and Communication Plan
DSOs	Distribution System Operators
D&C	Dissemination and Communication
EDM	Exploitation and Dissemination Manager
ENCS	European Network for Cyber Security
EPES	Electric Power and Energy Systems
HEDNO	Hellenic Distribution Network Operator
ICS	Industrial Control Systems
IoT	Internet of Things
MFA	Multi-Factor Authentication
PMB	Project Management Board
QR	Quick-Response
SEL	SEleNe-CC
TSOs	Transmission System Operators
URL	Uniform Resource Locator
WP	Work Package

Executive Summary

This deliverable presents in detail the Dissemination and Communication (D&C) objectives, the strategy implemented, and the progress achieved during the reporting period (M1-M18). All the partners have shown their engagement with the dissemination, following their responsibilities and contributing equally to the implementation of the project objectives. WP9 focused its efforts on developing and implementing the appropriate D&C strategy and activities. These activities will result in the best and most effective promotion of the project at local, European and international levels. For this purpose, new and creative ideas have been developed, differentiating COCOON from other European projects while capturing the attention of numerous potential stakeholders.

In this period of the implementation of the project, the main objectives of WP9 were the following:

- To develop, launch and enrich the COCOON website.
- To design and create communication material for the project (logo & key visual, general PowerPoint presentation layout, project leaflet, press release, newsletter, posters, roll-ups, social media channels).
- To maintain the project's website and social media channels (LinkedIn and X profile - former Twitter).
- Keeping COCOON Podcast active, creating a dedicated podcast logo and completing the first series "Exploring partner's role and general activities".
- To coordinate with partners for their better engagement at a local level and stronger involvement.
- Participation in events at national and European levels to raise awareness and visibility for the project.
- To identify and attract relevant stakeholders.
- To establish, maintain and enhance collaboration with other similar EU-funded projects.
- To provide deliverables and reports corresponding to the reporting period M1-M18.

D&C activities play a vital role in ensuring the adoption and impact of the COCOON solution beyond the project's duration. This deliverable outlines the key strategies and tools that will be employed to maximize outreach and engagement. Additionally, it details the next steps for the second half of the project, focusing on how the solution will be effectively promoted to a wider audience.

1. Introduction

1.1 About COCOON

The electrification of the European Union (EU) is driving the decentralization and digitalization of Electrical Power and Energy Systems (EPES), incorporating Distributed Renewable Energy Sources (DRES) as a pivotal pathway towards decarbonization and climate mitigation. However, the existing setups managed by Transmission System Operators (TSOs), Distribution System Operators (DSOs), and aggregators face cybersecurity challenges at the convergence of Information Technology (IT) and Operational Technology (OT). Recent geopolitical events, like the war in Ukraine, underscore the vulnerability of the interconnected EU power grid to malicious activities. In response, COCOON aims to deliver a practical cyber-physical systems solution for converged EPES.

The project has outlined key objectives to address the existing challenges. Firstly, it seeks to increase trustworthy information exchange by developing the COCOON Programmable Node (CPN). This CPN will accelerate data processing, forwarding, and control functionalities, providing a bottom-up solution for supporting computationally intensive cyber protection applications. Secondly, COCOON aims to implement an Early Warning System (EWS) for cooperative cyber-physical protection and operator training. This system, coupled with CPN functionalities, will enhance real-time measurement, monitoring, and DL-based attack diagnosis.

Thirdly, COCOON aims to enable real-time cyber-physical protection by mapping explicit OT properties to IT vulnerabilities, addressing cybersecurity challenges resulting from the convergence of IT with OT technologies. The project plans to provide a measurement-based methodology, attributing threat vectors with violations of technical and physical constraints in power distribution networks. Additionally, COCOON seeks to achieve data-driven detection of known and unknown (zero-day) exploits in converged IT/OT setups through the synergy of graph-based data provenance and DL-based regression analysis.

Finally, COCOON aims to strengthen the resilience of interactions among entities involved in grid stability processes through practical network and system threat mitigation mechanisms. These mechanisms will be orchestrated by a cross-domain programmable data plane scheme inherent to the CPN, enhancing the resilience of interactions among entities involved in grid stability processes.

In conclusion, COCOON's comprehensive approach, aligned with EU ACER NCCS and SGAM framework, aims to significantly advance the state-of-the-art in cyber-physical protection for EPES setups, contributing to a more secure and resilient energy infrastructure in the EU.

1.2 Scope and objectives of this deliverable

This deliverable is the third of five total deliverables concerning the D&C Plan of COCOON. The D&C Plan is a very important task for the partners because it ensures the continuity and the mortality of COCOON beyond the official end of the project.

Figure 1 depicts all the deliverables and the one milestone of WP9 settled into distinct periods, specifically in quartiles, among the three years of the project. This deliverable belongs to Month 18 of the project, encompassing all the progress made until now and the next steps. There is one more Deliverable (D9.4) to be enacted by the end of the project, when all the results of the dissemination will be unveiled.

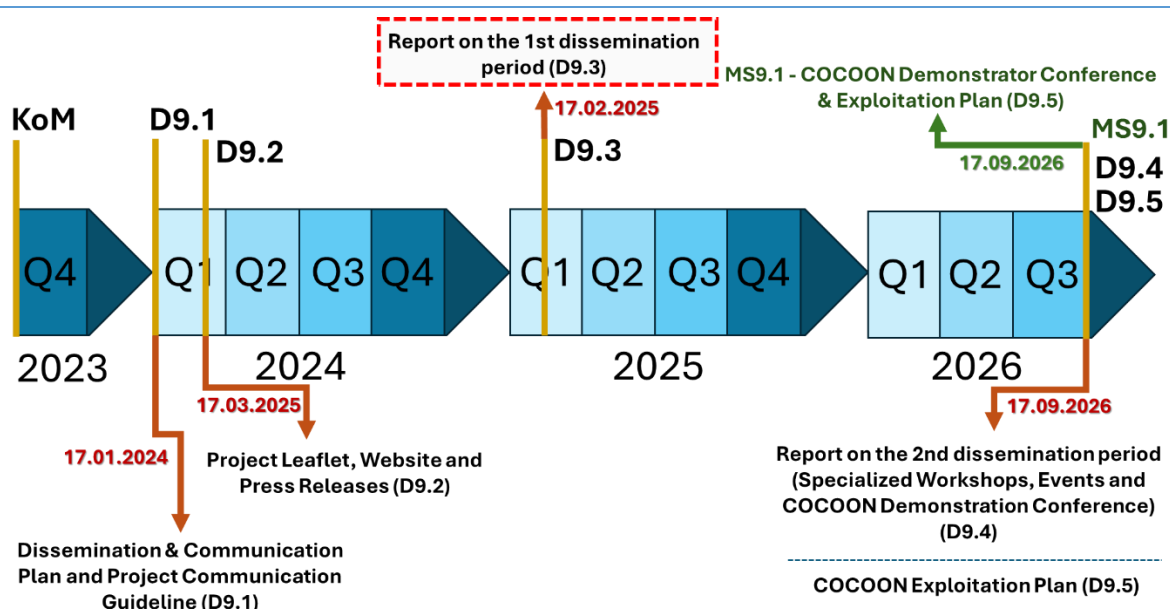


Figure 1: Deliverables and milestones of WP9 in quarters per year

The scope of this deliverable is to present a year, and half report related to the D&C activities of the project performed by project partners. It outlines the dissemination and communication objectives and strategy of the reporting period and presents the tools and activities that were undertaken to accomplish the set objectives. While the complete dissemination strategy will be showcased on a larger scale during the second half of the project—when the initial results of the new technologies are announced—the first half plays a crucial role in keeping potential stakeholders informed and engaged with the project's progress.

1.3 Methodology of the deliverable

The deliverable has been developed based on the detailed description of WP9 objectives, with close collaboration between the WP9 leader (SEL), HEDNO—who plays a crucial role in dissemination—the project coordinator, and the partners. The WP9 leader, together with HEDNO, is responsible for the deliverable's content. Additionally, due to the strong interest among the partners, the deliverable has been shared with them for review, feedback, and contributions to specific sections. The final version of the document has been submitted to the project officer for approval.

1.4 Structure of the deliverable

The present deliverable is organized as follows:

- Section 2 introduces the project, WP9 and the deliverable.
- Section 3 focuses on the dissemination and communication tools used, as well as on the activities that were implemented for the achievement of the objectives for the period.
- Section 4 outlines the activities that were performed during the first year of the project, that are being performed in the current period (M13–M24), and that will be performed in the final third year (M25–M36).
- Section 5 reports on the statistical evaluation of D&C tools as well as on the corrective actions.
- Finally, Section 6 concludes the deliverable.

2. Update of D&C objectives for the reporting period

The update of the Dissemination and Communication (D&C) objectives for the reporting period focuses on the continued refinement and expansion of COCOON's dissemination strategy. As the project progresses through its phases, we remain committed to ensuring that all activities align with the overarching goals of raising awareness, sharing knowledge, and ensuring the broadest possible impact.

2.1 Overall D&C strategy

This report intends to give an overview of the dissemination, as well as of the communication activities performed within WP9 in COCOON. In today's world, where cybersecurity is paramount and companies grapple with growing vulnerabilities to cyber threats, strengthening the resilience and reliability of modern power systems within the critical infrastructure is essential. COCOON provides a robust solution to ensure cybersecurity in this evolving digital landscape. Our mission is to spread the knowledge acquired through this project to the scientific and industrial communities, as well as to key stakeholders. This mission paves the way for the exploitation of the developed technologies and methodologies, based on new market opportunities and business models.

As dissemination activities only focus on the project results, we add a communication strategy that enables COCOON to reach multiple audiences beyond our own community, including the media and the public. It is important to mention again that the whole strategy of dissemination will be implemented during the second period of the project.

COCOON is a plug-and-play solution applicable for ICS setups and their use may be adequately tailored to protect mission-critical deployments that can also be utilized by companies outside the energy sector, such as water utilities. This versatility highlights the importance of disseminating COCOON to a broader audience. Our key objectives for D&C are:

- 1) To raise awareness in the public about the project, explaining why COCOON is so important, and focusing on diversified target groups using effective communication methods and tools.
- 2) To disseminate all fundamental results, the methodologies and technologies developed during the project, e.g. novel solutions and research for the scientific and industrial community.
- 3) To exchange experience with projects and groups working in the field, to join efforts, minimize duplication and maximize potential.
- 4) To pave the way for a successful commercial and non-commercial exploitation of the project outcomes through dissemination.
- 5) To develop a communication strategy, so that the project objectives and methodologies are effectively communicated.
- 6) Policy makers and utilities, like DSOs and TSOs such as the ones participating in the project.
- 7) Regulating authorities and standardization bodies.
- 8) Market players, such as Energy aggregators.
- 9) Stakeholders in the manufacturing sector, such as Scada manufacturers.
- 10) Local energy communities.
- 11) Academics.
- 12) Investors and consultants.

13) Broader interested audience (water utilities, gas pipeline operators).

To maximize the output of the project, all D&C activities will follow principles and best practices successfully tested by the partners in other projects and aligned with the EC Guidelines for successful dissemination [1]. The Research will be conducted following sound analysis and scientific practice principles, considering as much as possible policy requirements and needs. All public results will be accessible from the project website and usable by all parties who may benefit from them. Additionally, all partners are responsible for reviewing any reports or reviews related to their work before these are published or disseminated. This approach ensures that dissemination is transparent, informed, and aligned with project guidelines, fostering collaboration and allowing the wider community to benefit from the research outcomes.

The following points outline several key aspects of our D&C for COCOON. These include:

1. Subject of dissemination: What will be shared?
2. Identification of target audience: Determining who will benefit most from the project results and who may have an interest in the findings.
3. Timing: When will dissemination activities occur?
4. Dissemination management and policy: Who is responsible for dissemination efforts and how these efforts are governed?
5. Methods and tools: Identifying the most effective ways to reach the target audience.

2.1.1 Subject of dissemination

We identified the following broad topics for D&C:

- 1) The COCOON project itself (general scope, coverage, goals, structure, project members, participating universities and countries, project assets, milestones, project information);
- 2) Interim results (reached objectives and achievements);
- 3) Techniques and methodologies (in respect of IPR issues);
- 4) Technologies (in respect of industrial IPR issues);
- 5) Innovation aspects (in an “open innovation” perspective);
- 6) News and events;
- 7) Additional external resources (e.g. information about renewable energy, energy transition, ancillary services, etc.).

2.1.2 Target Audience

The following target groups of stakeholders have been identified in the first place:

- 1) Academia and research institutions: This includes those specializing in electric power systems, system operators (distribution and transmission), as well as participants in related research projects. These stakeholders are regularly discussed in PMB meetings and are finalized by the project coordinator.
- 2) Policy makers and utility stakeholders: This group includes Distribution System Operators (DSOs), Transmission System Operators (TSOs), Balancing Service Providers, Balancing Service Procurement entities, electricity retailers, aggregators, independent energy producers utilizing DRES, regulatory

authorities, and standardization bodies. DSO and TSO operators: This group includes SCADA manufacturers, power grid owners and operators, energy communities, EU technology clusters, consultants, and potentially market and technical regulatory bodies.

We further analyze their nature and interest in COCOON in the following **Error! Reference source not found.** It is noted that the “Responsible Partner” appearing in the following table represents the status at the moment of submitting this deliverable. During the progress of the project, the “Responsible Partner” may change.

Type of audience	Motivation	Responsible Partner
Academia and research institutions	This group targets all research communities interested in the COCOON project’s developments, results and innovation which can be beneficiary for their own research activities. Scientific contributions of COCOON are particularly interesting for researchers working in e.g. the fields of cybersecurity and privacy for CNI, ICS and the IoT.	All academic partners in the project and SEL
Participants in related research projects	The participation of project partners in other relevant projects offers the opportunity to establish quick links among parties through common participants.	All partners
Policymakers	This is a wide group encompassing innovation-driven local and regional authorities, representatives and associations, politicians, ministries, parliaments, and public administrations at national and European levels.	SEL
Utilities like DSOs and TSOs	COCOON is important for utilities like DSOs and TSOs because it addresses key challenges associated with the integration of renewables, provides advanced ICT solutions, enhances data coordination, improves grid stability, contributes to marketplace efficiency, and aligns with evolving regulatory expectations.	SEL
Balancing Service Providers	Settlements between TSOs, DSOs and BSPs are essential tasks and functions that are fundamental to the core objectives of ensuring operational security and integrating the balancing market. Thus, they cannot be delegated or assigned by the TSOs to any third parties.	HEDNO
Electricity retailers and aggregators	Aggregators are being lauded as critical in enabling DRES to provide valuable electricity services at scale. In this light, regulatory and policy bodies are discussing the role of aggregators and even the need to support their market entry. Interest in the results of COCOON is therefore given.	USE
Independent energy producers by DRES	COCOON is important for Independent Energy Producers by DRES as it provides technological advancements, facilitates the integration of AS, explores the potential of inverters, and opens market opportunities. The project’s outcomes offer practical solutions for enhancing the performance and capabilities of distributed renewable energy systems operated by independent producers.	ING
European regulating authorities and	COCOON holds paramount importance for European Regulating Authorities and Standardization Bodies (ERASB) as it represents a pioneering initiative in shaping the future of renewable energy integration and grid technologies. The project serves as a	ENCS

standardization bodies (ERASB)	significant reference point for establishing standards and regulatory frameworks within the European energy sector. ERASB's involvement in the advanced stages of COCOON enables them to offer consultative advice on pre-standardization procedures, ensuring that technological developments align with regulatory requirements as they reach suitable readiness levels	
Stakeholders in the cybersecurity services for the electricity sector	A major objective of COCOON is to address and stimulate the active involvement of key players. <i>Table 1: Target audience</i>	ING

2.1.3 Dissemination activities timing

Dissemination activities are organized based on the development stage of the project as outlined in the Description of Action (DoA). While several dissemination efforts have already taken place during the first 17 months of the project, the most impactful activities are planned for when the final research results become available, marking the transition to the next phase of industrial development.

The dissemination activities are to be performed according to the following logical schedule:

- 1) Initial awareness phase (months 0-6): this especially includes the establishment of COCOON communication material, including the graphical identity of the project (i.e. project logo, project website, press release) and analysis of relevant information resources in terms of identification of dissemination opportunities.
- 2) Targeted dissemination phase (months 6-24): the consortium will enrich the website, update the project communication material, attend selected events and organize workshops. Preliminary project results will be presented to the target audience.
- 3) Final phase (months 25-36): this marks the final phase of the project, during which COCOON consortium partners will begin preparing their individual exploitation and business plans for the industrialization of the COCOON project outputs. This stage will primarily focus on engaging the target audience with information about the exploitable results of the COCOON project.

2.1.4 Dissemination management

Dissemination of project results is a key component of the COCOON project, and every opportunity will be seized by individual partners or through joint activities to raise awareness of the project among both technical audiences and the general public.

All partners are expected to actively contribute to dissemination efforts in line with their roles and responsibilities. This includes presenting at conferences, publishing papers, organizing events, and engaging in other activities that help communicate the project's results. These efforts will focus on both the adoption of COCOON's outcomes and on the preparation for successful commercialization in the future.

To manage the communication and publication of COCOON-related content, the consortium has appointed an Exploitation and Dissemination Manager (EDM). The EDM serves as the primary contact for all external communication, ensuring the effective sharing of information through various channels such as conferences, publications, media, and other public outreach methods.

The EDM will work closely with all project partners to coordinate dissemination activities, ensuring alignment with the project's goals. Detailed plans for dissemination will be developed and reviewed regularly by the Project Management Board (PMB) to ensure effective communication with key stakeholders and the broader community.

The PMB serves as the consortium's formal decision-making body. It is composed of one delegate from each Consortium Partner and the Project Coordinator (PC), who acts as the PMB chairman. Each delegate represents their organization in all financial, resource-related, and negotiation matters. The PMB provides a joint platform to discuss the progress of individual Work Packages (WPs) and ensure their alignment with the project's overall objectives, as shown in Figure 1.

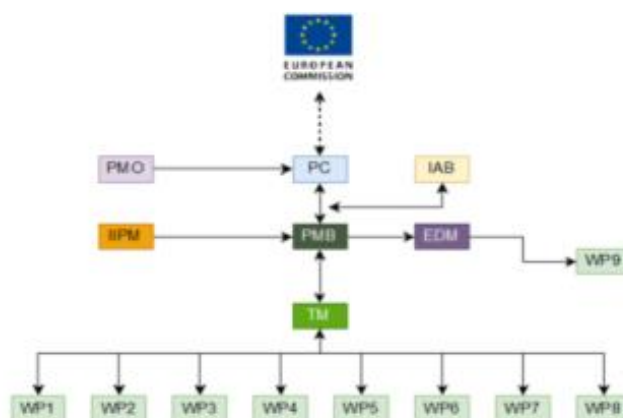


Figure 2 – Structure of the Cocoon Research and Innovation Project.

All activities concerning D&C are identified by the EDM and communicated to the PMB. The EDM proposes ways to disseminate project results, communicate them to relevant stakeholders, and take actions to ensure effective communication. Project members working on different WPs are encouraged to share ideas for dissemination and communication as early as possible directly with the EDM. This process ensures that all results are communicated in a timely manner.

In Cocoon, the Advisory Board (AB) meeting took place in November 2024, with the following institutions and organizations participating and assigning the representatives listed in Table 2.

Name	Institution
Mr. Nuno Medeiros	E-REDES, Portugal
Mr. Mathew Woodyard	Okta Inc. , USA
Mr. Ben Kuchta	National Grid, UK
Mr. Ondřej Černý	E.DSO , EU (NL)
Mr. Diego Arribas	Red Electrica, Spain
Prof. Awais Rashid	University of Bristol, UK
Prof. Nikos Hatzigiorgiou	National Technical University of Athens, Greece

Table 2: Advisory Board

3. D&C Activities

Guaranteeing the impact of the project on relevant stakeholders outside the project partnership is important to ensure that the outcomes of the project are:

- Fully exploited,
- That the knowledge gained will be available to all interested stakeholders,
- That the project results can be used for further developments in the field and beyond,
- That the project will bring significant benefits to society.

In general, we focus on three activity groups in COCOON:

- 1) Identify, attract, inform and involve relevant stakeholders.
- 2) Foster excellent scientific and industrial exchange and discussion.
- 3) Inform about the project through efficient channels and external media.

Above we will explain how all these activities will take place.

3.1 Identify, attract, inform and involve relevant stakeholders

COCOON's goal is to deliver a practical cyber-physical systems solution for converged EPES by bridging secure networked systems research and innovation with power systems engineering. Via an interdisciplinary approach, COCOON will address the requirements of the EU ACER NCCS 32[2] and the SGAM framework [3]. Through the developed solutions, COCOON will promote the digitalization of EPES, while ensuring protection against the growing cyber threats. The goal is to achieve collaboration within the project to disseminate results as early as possible, but also to integrate viewpoints and experiences outside the project. The four basic steps 'Identify, Attract, Inform and Involve' are crucial to this goal.

Activity 1: Identify relevant stakeholders

The D&C strategy of COCOON is led by SEL, which has experience in organizing dissemination actions and managing large networks of stakeholders, especially concerning the topics of energy security. SEL will leverage its robust network in the energy sector to identify specific stakeholders and analyze their interest in COCOON. To maximize the impact of the D&C strategy, all project partners have to work on identifying interested stakeholders in their surroundings throughout the project duration.

Although COCOON primarily focuses on ensuring cyber-protection within the energy sector, its ultimate goal is to provide solutions applicable across all critical infrastructure domains. Consequently, its scope extends to a broader range of stakeholders, including water utilities, national defence organizations, and other critical infrastructure entities.

The following target groups of stakeholders have been identified in the first place:

- Academia and research institutions in the fields of cybersecurity and privacy for CNI, ICS and the IoT, applied networked systems, DRES, power electronics, power systems and smart grid technologies.
- Policy makers, DSOs, TSOs and their respective unions, electricity retailers, DRES Aggregators, Balancing Service Providers (BSP), independent DRES producers and their respective unions, National Regulatory Authorities, and Standardization bodies.
- Stakeholders in the cybersecurity services for the electricity sector, DRES grid-integration business, unions of DRES manufacturers, energy communities, consultants and possibly market regulatory bodies.

The actions that have to be taken are (i) All partners will screen their networks for relevant partners regularly, (ii) Create a list of relevant contributors that will be constantly updated, (iii) Identify and contact other relevant national and EU projects needed for dissemination, (iv) Discuss further actions based on the list of relevant partners.

Activity 2: Attract stakeholders through excellent marketing, networking and collaboration

To attract stakeholders and increase their interest, all project partners support the marketing activities. Thus, a close collaboration of all WPs with the D&C actions should be as effective as possible. In this context, monthly teleconferences are held, allowing all partners to stay connected regularly. Additionally, in-person meetings take place every six months as part of Physical Consortium Meetings, each hosted by a different partner in a new location. These activities are essential for keeping the consortium updated on ongoing activities while fostering stronger relationships among partners and promoting deeper collaboration. COCOON is a project with strong relations between partners and this is something that the D&C team strives to promote.

Furthermore, attractive actions that open the project to external interests will be realized to broaden the network. Actions: (i) Create a marketing concept for the project via the website, newsletter, brochures, podcasts, posters, etc., (ii) use of tools to analyze stakeholder interest, e.g. questionnaires; (iii) strong presence in social networks, such as LinkedIn and X (iv) develop creative marketing measures for ensuring the project's timely and attractive presentation (v) organize events with other relevant projects. In order to attract the stakeholders' involvement, the following actions are foreseen: (i) organize innovative workshops; (ii) create accounts and discussion groups on social media sites (e.g. LinkedIn, ResearchGate); (iii) send specific newsletters to the identified stakeholders.

Activity 3: Inform about the project through relevant channels

The project consortium offers a large network all over Europe where information on the project and its results can be spread to relevant partners. Nevertheless, extending the project to stakeholders beyond this spectrum through innovative approaches is crucial for enhancing the project's communication and outreach. Public events, conferences, brochures, press releases, podcasts, available online information and presentations are measures that help to inform as many people as possible about the project's status and its results. A careful selection of the right content and professional communication ensures that the project's results are presented effectively.

Actions to be taken:

- **To create a well-structured and constantly updated project website**, informing about the project and keeping interested stakeholders updated on the project's results and actions. (achieved in the first three months).
- **Development of a Newsletter**, offering the possibility to subscribe to a project newsletter and inform regularly (e.g. every six months) about relevant progress in the project (achieved in the first three months).
- **To create a podcast on Spotify**, to showcase the achievements, challenges, and future steps of COCOON while introducing the project's partners. (achieved in the first three months).
- **To design, publish and spread informative materials**. Plan, design, publish and spread information material like brochures, flyers, posters, movies or roll-ups

- **To organize networking events, e.g. conferences, and workshops.**
- **To develop demonstrators** (e.g. exhibitions, fairs etc.) that show the achievements of the project (All partners) throughout the whole project.

Creating these channels will ensure that all relevant stakeholders are not only well-informed about COCOON, but also actively engaged with its progress and objectives.

Activity 4: Involve important stakeholders in the project

The COCOON project is a research and innovation initiative aimed at ensuring its outcomes are effectively utilized beyond its completion. To achieve this, it is essential to involve relevant stakeholders in its network and collaboratively shape the project. Engaging with stakeholders to discuss results, integrate new ideas, incorporate emerging technological trends, collaborate on solutions, exchange data, and explore new business opportunities are critical aspects that must be prioritized for the project's success.

The actions that have to be taken:

- **Development of workshop formats:** Create innovative workshop formats that involve stakeholders in the project, e.g. through new market opportunities, business modelling, and discussions on the developed cost-benefit results and trends in cybersecurity and in EPES.
- **Social media integration - SM:** Create online discussion forums in professional social media like LinkedIn and Research Gate that will enable the timely exchange of relative opinions and ideas. Create Twitter and Facebook appearances.

Engaging relevant stakeholders and tailoring the COCOON solution to meet their needs will significantly enhance the future adoption and utilization of the solutions.

3.2 Foster excellent scientific and industrial exchange and discussion

Activity 5: Scientific publications and Conferences

In the COCOON project, a cyber-physical protection solution for modern power grids will be developed. To achieve this, a refined, interdisciplinary approach is essential. All academic and research partners will conduct high-level research in both the cybersecurity and energy systems fields, culminating in scientific publications.

The project provides consortium partners with the opportunity to contribute to this dissemination effort and collaborate on joint publications. Depending on the maturity of the results, the findings will be presented at conferences and eventually published in relevant journals. All conference papers will be submitted to peer-reviewed international conferences, chosen for their scientific reputation and the visibility they offer in their proceedings (e.g., inclusion in databases like IEEE Xplore or Scopus). An indicative, though not exhaustive, list of such conferences in the European region includes:

- IEEE Globecom;
- IEEE ICC;
- IEEE SmartGridcomm;
- ISGT Europe;
- CIRED;
- CIGRE Symposia and Conferences;
- IEEE Powertech, EEM;

- UPEC;
- ISAP;
- Usenix Security;
- Usenix NSDI;
- Usenix OSDI;
- USENIX Security Symposium;
- ACM CoNeXT;
- ACM SIGCOMM;
- ACM Computer and Communications Security (CCS);
- ACM SIGEnergy e-Energy

After the first half of the project (M18), as the initial research results begin to emerge, journal publications will start to be submitted. Scientific papers will also be submitted to high-impact international journals. Accepted papers will be uploaded to the Zendo repository. All academic and research partners are at the forefront of the current research subject, and all scientific papers will be submitted to high-impact international scientific journals like:

- IEEE: Proceedings;
- IEEE: Trans. on Information Forensics & Security;
- IEEE: Trans. on Smart Grids;
- IEEE: Trans. on Network & Service Management;
- IEEE: Trans. on Power Delivery;
- IEEE: Trans. on Power Systems;
- IEEE: Trans. on Industrial Informatics;
- ACM: Trans. on Privacy and Security;
- ACM: Trans. on Networking;
- Elsevier: Computers & Security;
- Elsevier: Computer Communications;
- Elsevier: Renewable Energy;
- IET: Generation, Transmission and Distribution

For the COCOON project, the goal is to present 15 conference papers at international conferences, submit 12 scientific articles to journals, and have 8 scientific articles accepted by the end of the project. Additionally, at least 5 selected journal papers must be published as “Golden Open Access”, with the remaining articles published as “Green Open Access”. So far, four conference papers have been presented all of them are available in Green Open Access in the Zenodo repository. Furthermore, also four journal articles have been published, three of which are already available via Green Open Access in Zenodo Repository and another one via Golden Open Access in IEEE Xplore.

Journal Papers:

- 1) K. -N. D. Malamaki, D. -A. Christofis, G. C. Kryonidis and C. S. Demoulas, "Voltage Harmonic Mitigation by Distributed Renewable Energy Sources in Low-Voltage Distribution Networks: Sensitivity Analysis," in *IEEE Transactions on Industry Applications*, vol. 60, no. 5, pp. 7656-7671, Sept.-Oct. 2024, doi: 10.1109/TIA.2024.3420826. *Green Open Access in Zenodo*: <https://zenodo.org/records/13612106>
- 2) K. Feng, M. M. Cook and A. K. Marnerides, "Sizzler: Sequential Fuzzing in Ladder Diagrams for Vulnerability Detection and Discovery in Programmable Logic Controllers," in *IEEE Transactions on Information Forensics and Security*, vol. 19, pp. 1660-1671, 2024, doi: 10.1109/TIFS.2023.3340615. *Green Open Access in Zenodo*: <https://zenodo.org/records/14220552>

- 3) Z. Tan, S. P. Parambath, C. Anagnostopoulos, J. Singer and A. K. Marnerides, "Advanced Persistent Threats Based on Supply Chain Vulnerabilities: Challenges, Solutions & Future Directions," in *IEEE Internet of Things Journal*, doi: 10.1109/JIOT.2025.3528744. *Green Open Access in Zenodo: <https://zenodo.org/records/14717064>*
- 4) S. C. Dimoulas, K. -N. D. Malamaki, A. M. Gross, F. d. P. García-López, G. C. Kryonidis and M. Barragán-Villarejo, "Experimental Evaluation and Coordinated Deployment of Ramp-Rate Limitation against Rapid Voltage Changes in Distribution Systems," in *IEEE Transactions on Industry Applications*, doi: 10.1109/TIA.2024.3523456. *Gold Open Access*

One more conference paper has been accepted but has not yet been uploaded to Zenodo. We are awaiting its publication on IEEE Xplore first, after which it will be uploaded to Zenodo. The paper in question is:

- 1) Marnerides, A., Hajaj, C., Marbel, R., Dubin, R., Dvir, A., "PQClass: Classification of Post-Quantum Encryption Applications in Internet Traffic", in *IEEE ICC, 2025, Montreal, Canada* (to appear).

Conference Papers:

- 1) H. A. Almazraqi, M. Woodyard and A. K. Marnerides, "Macroscopic Insights of IoT Botnet Dynamics Via AS-level Tolerance Assessment," *ICC 2024 - IEEE International Conference on Communications*, Denver, CO, USA, 2024, pp. 5244-5249, doi: 10.1109/ICC51166.2024.10622782. *Green Open Access in Zenodo: <https://zenodo.org/records/14220677>*
- 2) K. -N. D. Malamaki, C. Mitakos, J. M. Mauricio and C. S. Demoulas, "Parametric Control Design for Recovery of Fast Storage Systems after Virtual Inertia Provision," *2024 IEEE 22nd Mediterranean Electrotechnical Conference (MELECON)*, Porto, Portugal, 2024, pp. 418-423, doi: 10.1109/MELECON56669.2024.10608615. *Green Open Access in Zenodo: <https://zenodo.org/records/13613707>*
- 3) S. C. Dimoulas, K. -N. D. Malamaki and G. C. Kryonidis, "Power Smoothing as a Mitigation Action against Rapid Voltage Changes: A Comparative Study," *2024 International Conference on Smart Energy Systems and Technologies (SEST)*, Torino, Italy, 2024, pp. 1-6, doi: 10.1109/SEST61601.2024.10694205. *Green Open Access in Zenodo: <https://zenodo.org/records/13895092>*
- 4) S. C. Dimoulas *et al.*, "Droop-Control-Aided State Estimation in Active Distribution Systems," *2024 3rd International Conference on Energy Transition in the Mediterranean Area (SyNERGY MED)*, Limassol, Cyprus, 2024, pp. 1-5, doi: 10.1109/SyNERGYMED62435.2024.10799301. *Green Open Access in Zenodo: <https://zenodo.org/records/14587131>*

Although we are still in the first stage of the project, with most results expected in the second stage, all partners have demonstrated their commitment to the D&C strategy. The target groups that COCOON aims to reach with its output include a wide range of professionals, including academics, researchers, participants in other relevant projects, representatives from utilities, commercial operators, and potentially policymakers.

In addition to scientific publications, the dissemination plan also includes several publications in journals aimed at a much broader audience. These publications may take various forms to promote COCOON, such as simple articles, technology progress updates, and interviews. Examples of publicly available technical, but not strictly scientific, magazines include *Energy Storage Journal*, *Solar and Storage*, *Sustainable Business Magazine*, *Cyber Defense Magazine*, *Infosecurity Magazine*, and *SC Magazine*, among others. This approach enables the project to engage broader audiences, including computer scientists, engineers, VPP operators, and consultants specializing in cybersecurity and energy. Publishing selected articles in such outlets allows for wide dissemination of the project's work and concepts to the general public.

Activity 6: Final Dissemination conference

The final dissemination conference will be addressed to a wider community of stakeholders and will include also invited distinguished speakers. This conference is scheduled to present the outcomes of COCOON demonstrator outputs and will be organized in the last project month (M36) in Nicosia, Cyprus. All project partners will also participate in the final dissemination conference to enhance collaborations and promote efficiently the project results.

The target groups for this conference include, energy market stakeholders, policymakers, industrial and consulting companies, utilities, DSOs, TSOs, associations like ENTSO-E, DSO, ENISA, etc., Balancing Service Providers (BSP), researchers in the fields of cybersecurity and privacy for CNI, ICS and the IoT, applied networked systems, DRES, power electronics, power systems and smart grid technologies, participants in other relevant projects, academia, etc.

Activity 7: Targeted dissemination – Local workshops

To disseminate COCOON to local stakeholders and policymakers, local workshops will be organized. In these workshops, the project's outcomes will be presented to relevant stakeholders and policymakers, as identified earlier. The workshops will take place after the first half of the project (M18), once the initial results have emerged.

A total of three workshops will be held: one in Thessaloniki, Greece (AUTH), one in Nicosia, Cyprus (UCY), and one in Delft, Netherlands (TUD). The first workshop will take place in Thessaloniki, immediately following the fourth physical meeting on **March 21, 2025**, and will be conducted in a hybrid format. During the workshop, project partners will present the initial results of the project and outline the next steps. Distinguished experts in the fields of cybersecurity and energy will deliver keynote speeches, and a roundtable discussion will be conducted. The target is to have more than 100 participants in each workshop.

3.3 Inform about the project through efficient channels and external media

Activity 8: Internet – Project website

The main connection between the project's activities and the public will be its website. The website will feature essential information, such as details about the project's institutes, partner organizations, and their corresponding team members, including their bios. Additionally, the core aspects of COCOON will be highlighted, explaining the distinct contributions of each work package and the pilot activities.

The primary goal of the website is to provide information about the project and keep subscribers updated. All publications, events, newsletters, and press releases will be uploaded to the website. Furthermore, all public documents will be made available in the public domain, while a restricted access area will be included for project partners.

The website will be updated every four months to ensure it remains current and engaging.

Activity 9: Industrial Conferences and exhibitions

The industrial partners of the project must intensify their efforts to promote the project's content at major events across Europe. Industrial conferences differ significantly from scientific ones, as they primarily involve companies and utilities rather than research institutions and academia. Although agendas for such events are not yet finalized, the following exhibitions could be prioritized for participation due to their global impact:

- International Cyber Expo;
- European Utility Week;
- Cybersec Europe;
- The smarter E Europe;
- Intersolar Europe exhibition

In cases where parallel events, such as conferences and seminars, take place, COCOON's industrial partners will be supported by other project partners to ensure the best possible dissemination of the project's results.

Activity 10: Media presence (communication)

To promote COCOON technology, SEL together with HEDNO, tries to use communication channels and creative ways. Some of these are the use of newsletters, social network platforms and podcasts.

Newsletter: SEL is responsible for creating the COCOON newsletter, which will be published every six months. The primary language of the newsletter will be English. However, translations into a partner's language will be provided upon the partner's request. A total of five newsletters will be released throughout the project, with the first one scheduled for publication during the first year. All partners are required to contribute to the content of the newsletter. To date, two newsletters have been created in accordance with the schedule. SEL will send a reminder email every six months, after which each WP leader will be responsible for highlighting the progress achieved within their respective work packages during that period.

The newsletter will be uploaded to the COCOON website and shared across all COCOON platforms. This approach ensures that followers and subscribers remain engaged and informed about the project's developments. The structure of the newsletter will include, in addition to key project milestones, updates on COCOON's presence at exhibitions, details of physical meetings, and promotions of the project's podcasts.

By the end of the project, the goal is to publish a total of five newsletters, providing comprehensive updates and fostering ongoing engagement with the audience.

Social network channels: With a strong presence on social media, COCOON aims to extend its reach to broader networks. In today's world, where social platforms play a vital role in communication, it is essential for COCOON to establish its presence. The objective is to enhance the project's visibility among technical audiences, foster communication with stakeholders working on similar initiatives, and engage the general technical community. The ultimate goal is to make COCOON a highly recognized and impactful project.

SEL, in collaboration with HEDNO, manages two social media platforms: LinkedIn and X. The goal is to reach a total of 500 followers on LinkedIn by the end of the project. As we approach the halfway point, our follower count has already exceeded 370. The dissemination team is committed to maintaining an active and up-to-date media presence by posting at least once per week, promoting Cocoon milestones by the partners, engaging followers through polls, and advertising events such as workshops and meetings.

In addition, COCOON will deliver research outputs to a large extent through resources provided by ResearchGate.net to communicate the project results.

Podcasts: COCOON strives to be a pioneer among European-funded projects in dissemination, and one innovative approach is through podcast episodes on Spotify. During the first year of the project, a primary podcast series titled *“Exploring Partners’ Roles and General Activities”* was launched. As the name suggests, this series introduced listeners to the project partners, providing insights into their backgrounds, their organizations, and their roles within COCOON. By the halfway point of the project (M18), all partners had been featured.

Now, in the second phase of the project, a new podcast series is set to be recorded. This series aims to make episodes even more engaging for listeners by showcasing the project's progress. Following the completion of each major task, the responsible partner will explain the outcomes of their research or the results of real-world tests.

The project’s goal is to reach over 300 listeners by the end, and as of now, more than 200 episodes have already been streamed or downloaded.

Press releases: The primary goal of a press release is to disseminate timely and relevant information in a structured and concise format. For COCOON, press releases play a vital role in:

- Announcing project milestones, results, or breakthroughs.
- Promoting participation in events, workshops, or conferences.
- Sharing key outcomes of research or collaboration efforts.
- Enhancing visibility and credibility among stakeholders and the general audience.

By leveraging press releases, COCOON aims to increase public awareness, engage stakeholders, and establish itself as a leader in its field. Key project milestones will be shared with the press through dedicated announcements issued by SEL in collaboration with project partners. The goal is to release four press announcements throughout the COCOON project, with the first having already been published at M17.

4. Overview of D&C events and actions

This section provides a comprehensive overview of the Dissemination and Communication (D&C) activities carried out throughout the COCOON project. It includes details on stakeholder engagement, public communication efforts, networking initiatives, and major industrial events. The timeline of activities is structured across three key phases: the first year (M01–M12), the second year (M13–M24), and the third year (M25–M36). The objective of this section is to ensure transparency, track progress, and provide a structured plan for upcoming actions.

1) Stakeholder Engagement and Outreach

Activity A1: Identify Relevant Stakeholders

- **CL:** Creation and update of contact list

Activity A2: Attract and Inform Stakeholders

- **QU:** Created an online questionnaire for COCOON contacts
- **SM:** Social media integration and content creation plan update
- **NL:** Publication of the COCOON Newsletter

2) Public Communication and Media Outreach

Activity A3: Internet – Project Website

- **WS:** Project website created and maintained

Activity A4: Marketing-Materials & Press Outreach

- **BR:** Creation of a project brochure
- **PB:** Creation of a project poster and banner
- **PR:** Creation of a press release

Activity A5: Major Industrial Events

- **EIE:** Electron Event – June 2024 (Completed)
- **MEL:** IEEE MELECON – June 2024 (Completed)
- **PES:** IEEE PES General Meeting – July 2024 (Completed)
- **ESW:** EPESec Workshop – July 2024 (Completed)
- **SE:** SEST – September 2024 (Completed)
- **SEM:** SynergyMed – October 2024 (Completed)
- **SCE:** SEMICON Europa – November 2024 (Completed)

3) Networking and Knowledge Sharing

Activity A6: Targeted Dissemination – Workshops & Meetings

- **PM:** Project meetings
- **LW:** Local workshops
- **AVM:** Meeting with the advisory board

Activity A7: Final Dissemination Conference

- **FiC:** Organize and host the final dissemination conference

4.1 First Year (M01 – M12) – Report

Activity	SEP 2023	OCT 2023	NOV 2023	DEC 2023	JAN 2024	FEB 2024	MAR 2024	APR 2024	MAY 2024	JUN 2024	JUL 2024	AUG 2024
A1												
A2			SM			NL						
A3			WS				WS				WS	
A4						BR/PB						
A5										Ele, MEL	PES, ESW	
A6	PM						PM					
A7												

4.2 Second Year (M13 – M24) – Plan

Activity	SEP 2024	OCT 2024	NOV 2024	DEC 2024	JAN 2025	FEB 2025	MAR 2025	APR 2025	MAY 2025	JUN 2025	JUL 2025	AUG 2025
A1			CL									
A2			SM/NL			QU		NL				
A3			WS				WS				WS	
A4					PR					PR		
A5	SE	SEM	SCE									
A6	PM		AVM				PM/LW					
A7												

4.3 Third Year (M25 – M36) – Outlook

Activity	SEP 2025	OCT 2025	NOV 2025	DEC 2025	JAN 2026	FEB 2026	MAR 2026	APR 2026	MAY 2026	JUN 2026	JUL 2026	AUG 2026
A1			CL									
A2	NL		SM			QU/NL						
A3			WS				WS				WS	
A4			PR					PR				
A5												
A6	PM						PM					
A7										FiC		

Conclusion

This report provides a structured overview of past, ongoing, and planned D&C activities. By maintaining a clear timeline and ensuring stakeholder engagement, we aim to maximize project impact and outreach.

5. Statistical evaluations of D&C tools & corrective actions

An overview of the dissemination tools and activities created and performed by COCOON in order to raise the visibility of the project during its first year of implementation (M1-M12) is provided in this chapter. Dissemination tools are communication channels where messages from the project are conveyed to stakeholders and to the general public.

5.1 List of Dissemination and Communication Events (Y1)

Nr.	Date	Action	Purpose	Audience
1	13/09/2023	Start of logo development	Presentation	All
2	22/09/2023	First drafts of 3 COCOON logos	Presentation	All
3	17/10/2023	Registration of COCOON domain	Information	All
4	17/10/2023	Final logo production	Presentation	All
5	20/10/2023	First draft of the website	Information	All
6	24/10/2023	Second draft of the website	Information	All
7	06/11/2023	Creation of a LinkedIn profile	Information	All
8	07/11/2023	New version of the website released	Information	All
9	12/02/2024	Start of brochure, poster, and banner development	Information	All
10	19/02/2024	First drafts of 3 COCOON brochure, banner, and poster designs	Information	All
11	22/02/2024	Development of a Podcast Series	Information	All
12	27/02/2024	Final brochure, banner, and poster production	Information	All
13	04/03/2024	Launching a Podcast Series	Information	All
14	15/05/2024-17/05/2024	Presentation of COCOON project at SynergyMed by Stelios Dimoulas, Charis Demoulas, Georgios Kryonidis, Kyriaki-Nefeli Malamaki, Lefteris Kontis, Fotis Fotellis, Apostolos Milioudis, Esther Romero Ramos	Presentation	Academic
15	05/06/2024	Presentation of COCOON project at ELECTRON 2024 by Dr. Georgios Kryonidis	Presentation	Industry
16	25/06/2024-27/06/2024	Kyriaki-Nefeli Malamaki, Charis Demoulas, Juan Manuel Mauricio, "State of Charge Control for Energy Storage Systems After the Provision of Frequency-Related Ancillary Services", IEEE MELECON 2024, Porto, Portugal.	Presentation	Academic
17	30/07/2024	Presentation of COCOON project at EPESec 2024 by Elvira Sanchez Ortiz and Salvatore Maccarrone	Presentation	Academic
18	10/09/2024-12/09/2024	Georgios Kryonidis, Stelios Dimoulas, "Security-Constrained Inertial Response Provision in Distribution Grids" and "Power Smoothing as a Mitigation Action Against Rapid Voltage Changes: A Comparative Study", 7th International Conference on Smart Energy Systems and Technologies (SEST 2024), Turin, Italy	Presentation	Academic

19	01/10/2024	First online meeting of the COCOON advisory board	Presentation	Advisory Board
20	9/10/2024-11/10/2024	Angelos Marnerides, "Cybersecurity Challenges in Critical Infrastructure Systems: COCOON's Cutting-Edge Solutions", SEMICON Europa 2024, Munich, Germany	Presentation	Industry
21	18/12/2024	News included in website: Downloads for presentations	Information	All

5.2 Statistical evaluation of Dissemination and Communication tools

This section outlines the dissemination and communication tools employed during the reporting period. These tools serve as key channels for transmitting and communicating the project's core messages beyond the consortium.

A unified branding approach has been, and will continue to be, applied across all promotional materials to maintain a consistent and recognizable identity. This consistent branding aims to foster a positive image and build a favorable reputation for the project.

5.2.1 COCOON Website

The project website was launched on Month 3 (November 2023) and serves as the most informative and resourceful dissemination tool.

It acts as a major channel for information and communication, catering to a range of audiences. In alignment with the main goals of WP9, the website supports the dissemination of project findings and fosters engagement with key stakeholders to promote knowledge sharing.

The website is designed to convey all relevant information about the project, making it accessible to various audiences. Since its launch, it has been regularly updated to sustain interest in project activities and ensure the content remains relevant.

Key updates include:

- **Download Section:** Provides access to presentation slides and conference materials.
- **Newsletter Section:** Allows visitors to view or download project newsletters.
- **Advisory Board Section:** Introduces a dedicated area under the "People" section, featuring information about the advisory board.
- **Events:** Offers a comprehensive overview of all conferences and events that COCOON members have participated in, along with details about upcoming activities we are organizing.
- **Improved Content:** Enhanced "About" and "Objectives" sections to improve clarity and relevance for diverse audiences.

This continuous development ensures that the website remains a central hub for information, outreach, and stakeholder engagement throughout the project's lifecycle.

The update of the website content, layout and design is ongoing throughout the implementation of the project. Data retrieved from the back end of the COCOON website is presented in the table below:

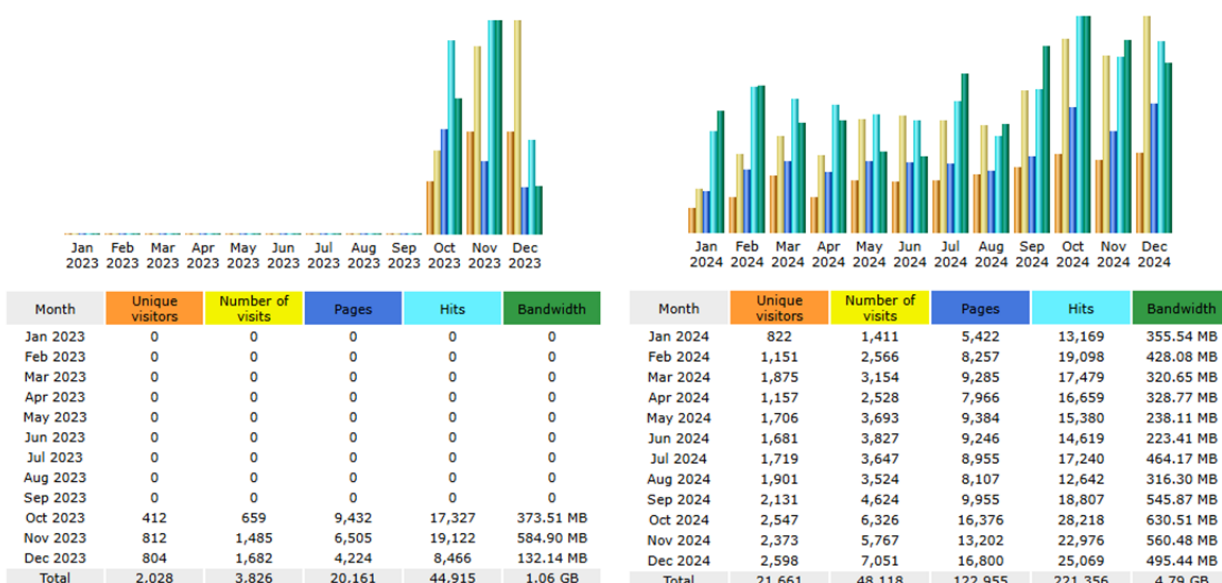


Figure 3: Website visitor statistics from the start of the project to the end of 2024

Visits duration			Visits duration		
Number of visits: 3,826 - Average: 288 s			Number of visits: 48,118 - Average: 222 s		
	Number of visits	Percent		Number of visits	Percent
0s-30s	3,316	86.6 %	0s-30s	42,946	89.2 %
30s-2mn	57	1.4 %	30s-2mn	569	1.1 %
2mn-5mn	34	0.8 %	2mn-5mn	351	0.7 %
5mn-15mn	64	1.6 %	5mn-15mn	732	1.5 %
15mn-30mn	71	1.8 %	15mn-30mn	875	1.8 %
30mn-1h	127	3.3 %	30mn-1h	1,346	2.7 %
1h+	157	4.1 %	1h+	1,299	2.6 %

Figure 4: Visit Duration Statistics for 2023 (Left) and 2024 (Right)

The above statistics highlight that in 2023, there were 2,028 unique visitors with an average visit duration of 288 seconds. In 2024, the number of unique visitors increased significantly to 21,661, with an average session duration of 222 seconds. The countries with the highest number of visits were:

- Greece
- United States
- Cyprus
- Great Britain
- Spain
- Netherlands

5.2.2 Newsletter

The first edition of the COCOON newsletter was distributed to subscribers on February 14, 2024. It provided updates on the project's progress, including news about the change in project coordinator and the launch of our social media platforms (LinkedIn and Spotify).

The second edition, released on November 26, 2024, summarized key project milestones and highlighted the events and conferences where the COCOON project was represented.

Below is additional information about the newsletter:

<input type="checkbox"/>	Name	Status	Audience	Analytics	Actions
<input type="checkbox"/>	Reconnecting, Reflecting, and Advancing: COCOON Updates Regular email Last edited Tue November 26, 2024 9:44 am by Cyber Cocoon Project	Sent Tue November 26, 2024 9:44 am	Cooperative Cyber Pr...	52.6% 10.5% Opens Clicks	View report
<input type="checkbox"/>	Exciting News and Milestones in COCOON Project! Regular email Last edited Wed February 14, 2024 1:26 pm by Cyber Cocoon Project	Sent Wed February 14, 2024 1:26 pm	Cooperative Cyber Pr...	57.1% 7.1% Opens Clicks	View report

Figure 5: Statistics on the Percentage of Newsletter Opens and the Number of Internal Links Clicked

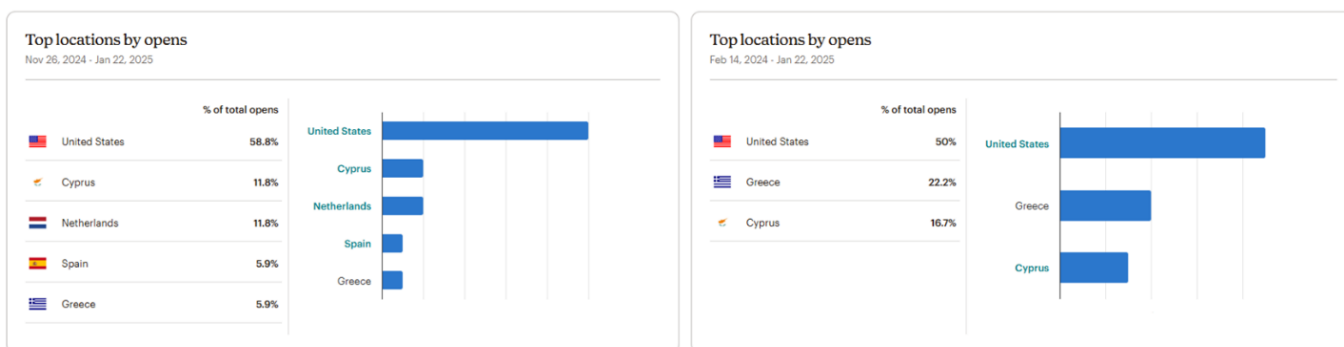


Figure 6: Statistics on the Percentage of Total Opens by Country for Our Newsletter

5.2.3 Social Media

Social media profiles play a pivotal role in promoting the project's visibility to a wide and diverse audience. Their popularity, accessibility, and rapid flow of information make them highly effective tools for online dissemination. Consequently, a profile on LinkedIn was created shortly after the launch of the project website. At the same time, a Spotify podcast was launched to reach a broader audience in a different way. This podcast serves as a unique promotional medium, providing in-depth explanations of the project's milestones and achievements. It also fosters a connection between the project team and the audience, allowing listeners to better understand each partner's role and the activities undertaken through engaging discussions.

During the reporting period, regular posts and podcasts have been shared, highlighting project developments, news, and relevant external updates from the web. These updates aim to maintain audience engagement and ensure continuous dissemination of the project's progress.

For the second dissemination period, we plan to launch an account on Platform X to reach a wider audience. Using Platform X, we aim to make the project more visible through reposts and other engagement strategies.

Below are the metrics for the LinkedIn platform from last year (2024):

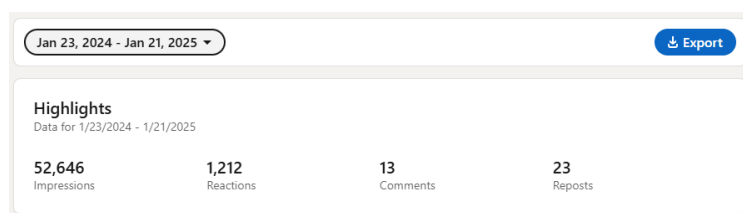


Figure 7: Statistics on how many times our posts were displayed and the number of reactions.

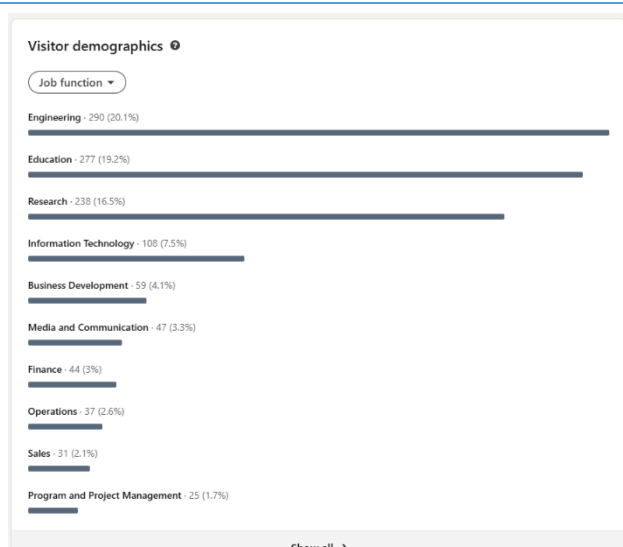


Figure 8: Visitor demographics highlighting the primary professional fields of our audience.

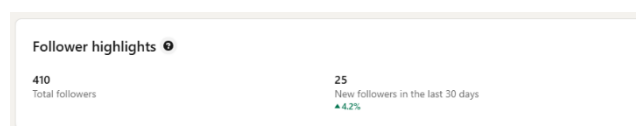


Figure 9: Total number of followers, along with the number of new followers gained in the last month.

To summarize the above figures, LinkedIn has proven to be a highly effective dissemination tool for our organization, experiencing consistent growth each month. We currently have a total of 410 followers, with a growth rate of 4%-5% new followers per month.

Our 52 posts have garnered a total of 1,212 reactions and achieved 52,646 impressions—the number of times our posts were displayed on someone’s feed.

Among these:

- 2 were poll posts designed to engage our audience with questions and gather insights on their perspectives.
- 3 were reports of relevant news from ENTSO-E and two of our COCOON partners, ensuring our audience stays informed.
- The remaining posts were project-related, covering key milestones, newsletters, podcasts, event and conference participation, and the celebration of international days relevant to our initiative.

This diverse content strategy helped us connect with our audience while delivering valuable updates and insights.

Our audience primarily comes from professional fields directly aligned with the areas where the COCOON solution has the most significant impact

1. Engineering – 290 visitors
2. Education – 277 visitors
3. Research – 238 visitors
4. Information Technology – 108 visitors
5. Business Development – 59 visitors

With this strong and relevant audience base, LinkedIn continues to be a key platform for sharing our project's progress and impact.

Below are the metrics for the Spotify Podcasts from last year (2024):

Plays ⓘ

206

All-time

Plays ⓘ

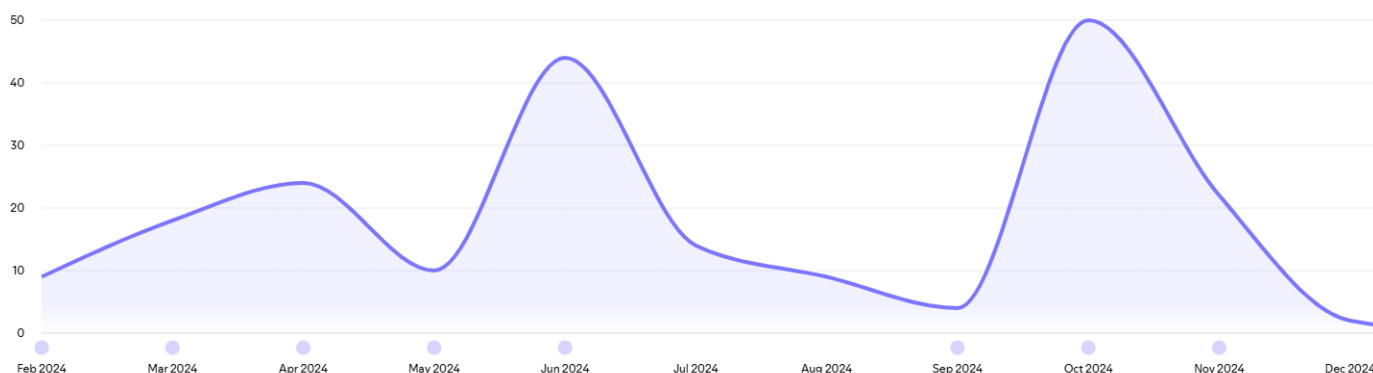


Figure 10: Number of listeners per month since the launch of the podcast.

Geographic location

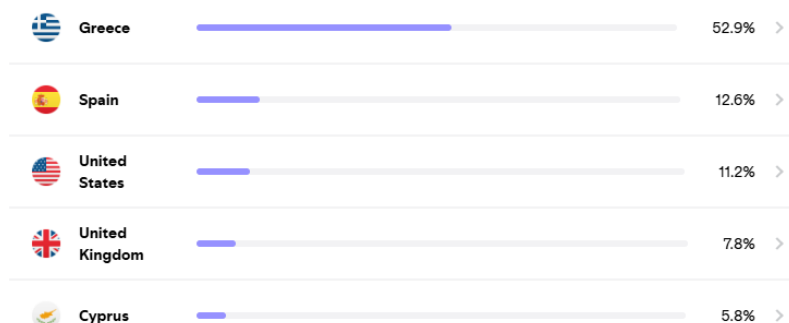


Figure 11: Percentage of listeners by geographic location.

Age

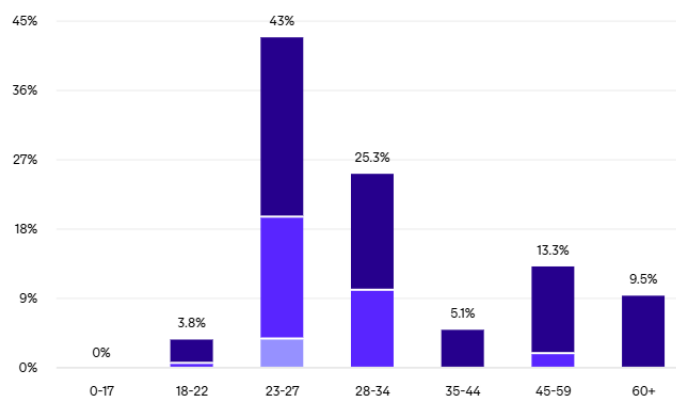


Figure 12: Age distribution of listeners, showing the percentage of listeners in each age group.

To summarize the above figures, the Spotify podcast has proven to be an effective tool for reaching a younger audience, with 68.3% of our listeners aged between 23 and 34. The podcast has accumulated over 200 all-time plays, attracting a diverse audience primarily from:

1. Greece
2. Spain
3. United States
4. United Kingdom
5. Cyprus

In total, we have released 13 podcast episodes. Most of them focused on exploring each partner's role within the project, while also introducing their general activities to our audience. These were short-format episodes (up to 15 minutes) featuring each of our partners. Additionally, we produced two in-depth episodes (around 30 minutes each) that provided insights into the current state of the electricity sector and emphasized the importance of cybersecurity in this field.

This podcast initiative has strengthened our outreach, fostering engagement and awareness around our project and its impact.

6. Conclusions

The D&C strategy is essential for maximizing the impact and further utilization of the COCOON solution. Throughout the first half of the project, significant efforts were made by all partners to ensure effective outreach. COCOON has been actively represented at numerous conferences and exhibitions, while physical consortium meetings have helped align future plans. The dissemination team has also established key communication channels, including the project website and presence on major platforms like LinkedIn, where progress updates and next steps are regularly shared to keep followers engaged and informed. Reaching a broader target audience remains a priority, as COCOON is a research and innovation project with applications extending beyond the energy sector to other industries and utilities. As the project moves into its second half, dissemination efforts will be intensified. With the first project results emerging, workshops and more frequent participation in conferences will play a key role in expanding the project's visibility and impact. Nowadays, with major cyberattacks occurring on a daily basis, companies are increasingly prioritizing cybersecurity—an opportunity that will further enhance the project's reach and impact.

7. References

- [1] European Commission. *Dissemination and exploitation of research results*. Retrieved December 11, 2024, from https://research-and-innovation.ec.europa.eu/strategy/dissemination-and-exploitation-research-results_en
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