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Electric Vehicles Management for carbon neutrality in Europe

Deliverable D10.2

Plan for the dissemination and exploitation of
results including communication activities - Update

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Disclaimer

This document has been produced in the context of the EV4EU project. Views and opinions expressed in this document are however those of the authors only and do not necessarily reflect those of the European Union or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

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Executive Summary

The EV4EU Deliverable 10.2 should be read as an update and add-on to the First Plan for the Dissemination and Exploitation of results including communication activities (D10.1). The first Deliverable was submitted at Month M6, and the updated version is now presented in M24. This deliverable has been prepared by the leader of Work Package (WP) 10 – INESC ID.

The initial plan presented the EV4EU's communication, dissemination and exploitation strategy focusing on the activities to be implemented throughout the project's lifespan.

This Deliverable will now present an update about all the Communication and Dissemination activities, tools and materials developed up to month 24, and update the key performance indicators (KPIs) presented in the project initial proposal. This plan will also offer a look into the next 18 months of the project, and of what will be exploited after the project lifespan under the Exploitation plan.

The main goal of all these activities is to keep on supporting the disclosure of user-centric management strategies and solutions for the mass growth of electric vehicles (EVs).

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Keywords, Acronym

BSc	Bachelor of Science
CINEA	European Climate, Infrastructure and Environment Executive Agency
D&C	Dissemination and Communication
EV	Electric Vehicles
MSc	Master of Science
KPI	Key Performance Indicator
Ph.D.	Doctor of Philosophy
PO	Project Officer
PR	Press Release
R&I	Research and Innovation
V2G	Vehicle-to-Grid
V2H	Vehicle-to-Home
V2X	Vehicle-to-Everything
WG	Working Groups
WP	Work Package
SEO	Search Engine Optimization

1 Introduction

1.1 Scope and Objectives

This document, *Plan for the dissemination and exploitation of results including communication activities*, D10.2, corresponds to the second dissemination, exploitation, and communication deliverable of the EV4EU WP10.

The EV4EU project aims to develop vehicle-to-everything (V2X) management strategies and solutions to overcome the challenges that limit the massification of EVs. To maximize impact, EV4EU vision and activities have been widely spread to target audiences from the very beginning of the project, engaging all stakeholders in the different phases of the project implementation and development.

The implementation of the activities initially proposed, have been crucial to raise awareness and inform about the project, funding source, and results, to ultimately create value within the target audiences and initiatives in Europe.

EV4EU dissemination, communication and exploitation strategic goals were identified in Deliverable D10.1 [1] and are listed next:

- To ensure maximum visibility of the EV4EU project in the target audiences via appropriate key messages and appropriate channels.
- To make the research, scientific and technological knowledge generated in the EV4EU project available within and beyond the project's consortium, maximizing its impact.
- To promote knowledge and innovation transfer by establishing networks with other projects and initiatives.
- To engage the targeted audience to get feedback and validate the project's results.
- To attract potential users and stimulate the appropriate market segment to support the project's exploitation strategy.
- To encourage additional outcomes in new initiatives.

The Communication and Dissemination Plan is instrumental to keep on supporting the project's objectives and implies a continuous work with other WPs and consortium partners, to keep on maximizing the impact of the project.

1.2 Structure

The current document is divided into seven sections. Section 1 introduces and describes the deliverable. Section 2 offers an update and overview of the communication channels and tools. Section 3 identifies the dissemination activities held up to month 24. Section 4 presents the status of the project proposed KPIs to evaluate and monitor the communication and dissemination activities. Section 5 shares a quick look into the exploitation strategy and Section 6 presents overall conclusions and considerations about this deliverable.

1.3 Relationship with other deliverables

Deliverable 10.2 will update the plan of dissemination, communication, and exploitation presented in Deliverable 10.1., and report all the developments registered up to month 24 by updating EV4EU activities and results. This document reinforces the strategies to be followed to assure that the knowledge and results produced within the project are properly communicated, disseminated, and exploited to the identified target groups. Thus, this deliverable is transversal to all activities executed within all WPs of the project, it is particularly focused on the work developed at the demonstration sites.

Deliverable 10.1. has previously presented detailed information about the project Target Audiences and Key messages and can be consulted on the [EV4EU website](#) for further information. In addition to this deliverable, an updated exploitation plan will be submitted at M36 (Deliverable 10.6).

2 Communication Channels and Tools

The plan for communication channels and tools proposed in the D10.1, is now updated in Deliverable 10.2. Between both deliverables, several activities were led to increase the project visibility, recognition, and awareness and to promote active engagement of the target audiences.

In the next sub-sections, will be presented an update of the communication tools and channels: EV4EU templates (Section 2.1), website (Section 2.2), social media (Section 2.3), Newsletters (Section 2.4), promotional materials (Section 2.5), Media Activities (Section 2.6) and videos (Section 2.7).

2.1 EV4EU Templates

Under the project, several templates have been developed using the EV4EU visual identity. All templates are available in a dedicated folder in EV4EU's internal SharePoint.

The existing templates already included in month 6th: Word-format templates (*Deliverables, Internal reports, Meeting agenda, Meeting minutes, Meeting list of Attendance*), and a PowerPoint template to be used by all partners for internal and external presentations (e.g., conferences, consortium meetings, public outreach etc.)

Since then, two new templates have been developed: a Newsletter template (Section 2.4 and ANNEX I) and a "News & Events Submission template", to be filled by project partners and sent to the Coordination team to inform about the participation at events or other relevant content, supporting the release of relevant information on EV4EU website and social media.

When partners develop a non-existing template for their needs, they should also upload it to the EV4EU internal SharePoint folder so that it can also be used by other partners, if needed.

All templates contain the EV4EU logo, graphic elements of the project and the European Commission flag with the following disclaimer, acknowledging the EU funding: *"Funded by European Union's Horizon Europe research and innovation programme under grant agreement no. 101056765. Views and opinions expressed in this document are, however, those of the authors only and do not necessarily reflect those of the European Union or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them."*

2.2 EV4EU Website

EV4EU's public website: <https://ev4eu.eu/>, was launched in M7. **Language:** English

The website is the main online information channel for the EV4EU project, providing up-to-date information about relevant results and outcomes (project news, events, public deliverables, scientific publications).

The website features a simple, modern, and accessible design using the EV4EU brand identity and is optimized to different devices (smartphones, tablets, laptops). A description of the website content and structure was presented in the first Deliverable.

Throughout the first 24 months the website has been regularly updated and has served the purpose of disclosing relevant information about the project main outcomes:

- **27 News & Events** have been shared;
- **23 Deliverables** are available for consultation and download;
- **3 Newsletters** are also available for consultation and download;
- **14 Conference papers** listed with PDF download links;
- **9 Journal scientific articles** listed and with PDF download links.

The [News & Events page](#) (Figure 2-1 and Figure 2-2) announces project activities and latest news, highlights EV4EU articles that have been released in the media, promotes events in which EV4EU has participated and informs about upcoming events.

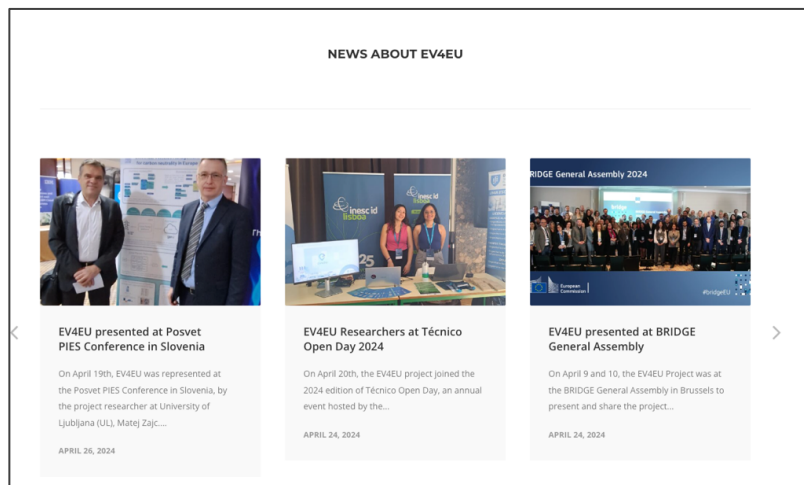


Figure 2-1 – News carousel displayed on the EV4EU Website (image end April)

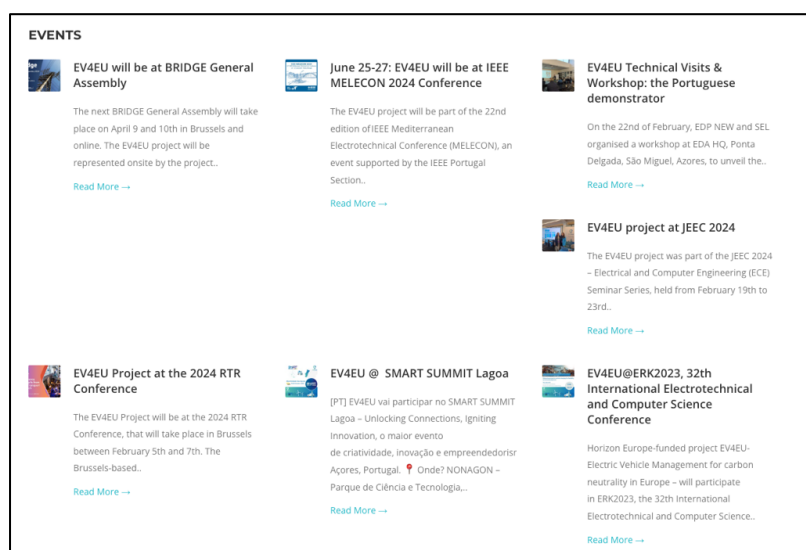


Figure 2-2 - Events displayed on the EV4EU Website

The [EV4EU Resources page](#) (Figure 2-3) provides the outputs of the project (scientific publications, public deliverables) as well as promotional materials, and other dissemination material that is being developed throughout the project.

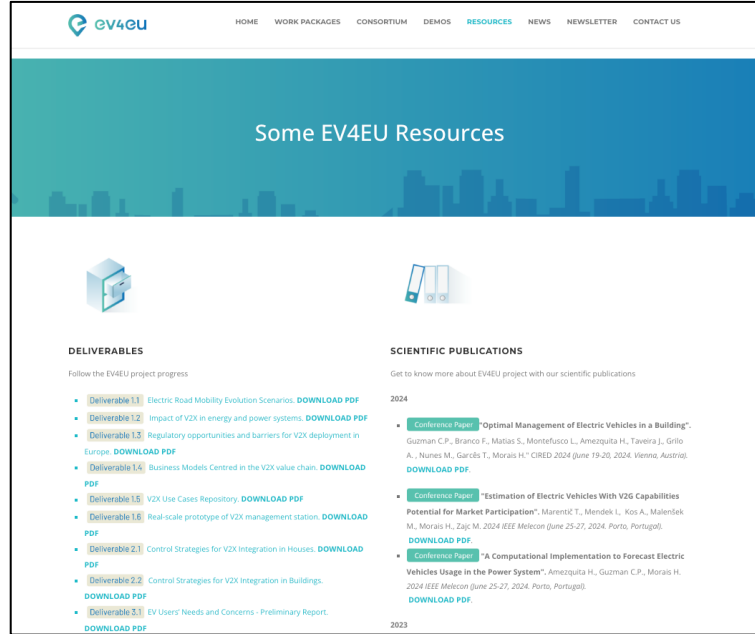


Figure 2-3 - Resources Page on the EV4EU Website

Initially EV4EU Newsletters were displayed in the Resources page, however for an easier and more intuitive access to the information, they are now available in the [“Newsletters” Page](#) (Figure 2-4).

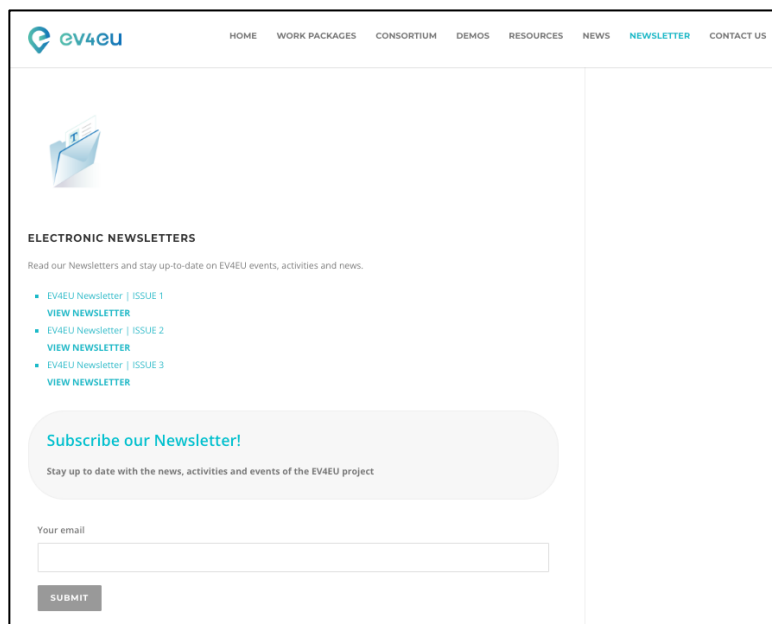


Figure 2-4 - Newsletters Page on the EV4EU Website

Other changes are being planned for the website for the upcoming months to optimize navigation, namely:

- Resources page: improve the layout and how the Deliverables and Scientific Publications are listed and displayed;
- Homepage: split the News section from the Events section and rename it as "Next Events". This will allow to have an easier overview of past activities and upcoming events.

The goal for the future is also to publish news more regularly and share all future events, to disclose all the activities being held under the Project on the website, serving as a repository of all the project outcomes.

Search-Engine Optimization (SEO) and Google Analytics

The website is Search-Engine optimization-friendly to improve its visibility in search engines such as Google, and Yahoo, among others.

INESC ID has been responsible for analysing the website traffic through Google Analytics, collecting data on the number of visitors, average duration of visits, number of page views, and number of references to the project on search engines. This data is used to monitor the visibility of the website and, when necessary, to adapt strategies to increase its popularity.

This information is collected for the Key Performance Indicators (KPIs) checks (See Section 4) throughout the project, but the main key metrics are identified below in

Figure 2-6 and Figure 2-7.

Under the Grant Proposal, the KPI for the number of references to the project in search engines was defined as 25. However, the intent of this metric was not very specific so from now onwards we will refer to this KPI as Google searches with "EV4EU project" as a result (Figure 2-5). In May the EV4EU project already had 3790 results shown on Google. Until the end of the project the goal will be to have 4000 results on Google.

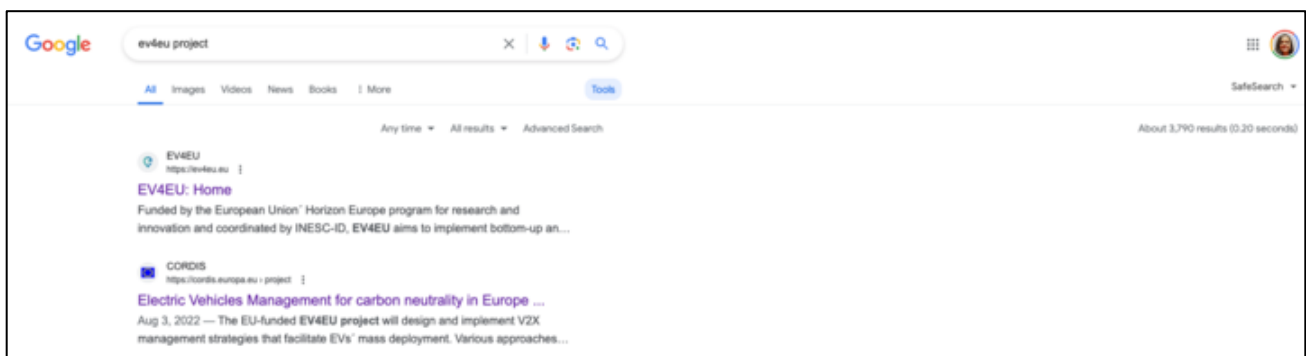


Figure 2-5 - "EV4EU project" search results on Google

Regarding the number of page views, the initial target was of 5 000 but this goal was already overcome (Figure 2-6), so the new internal target will be to reach the 15 000 page views by the end of the project lifespan. The same occurred with the number of 2000 Page visitors (Figure 2-7), so the new target will be of 5000 until month 42. This information was collected in the middle of May.

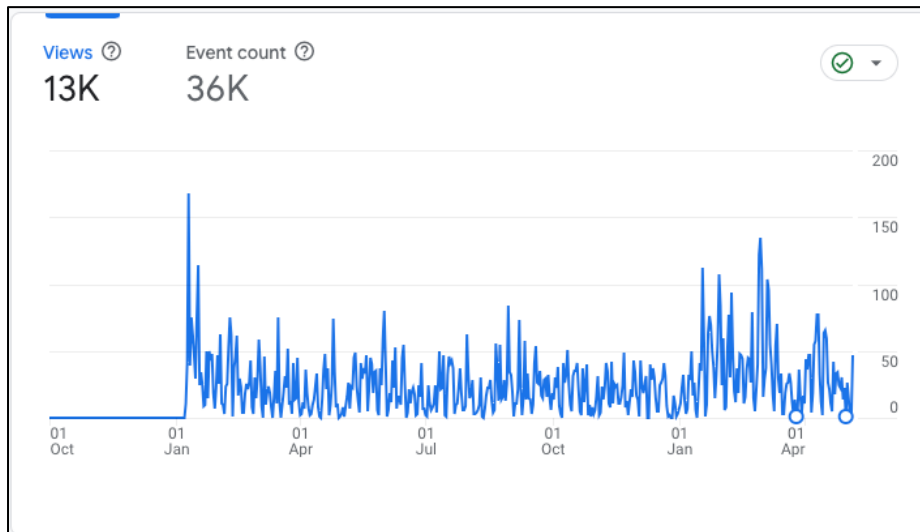


Figure 2-6 - Number of Page views on the EV4EU website

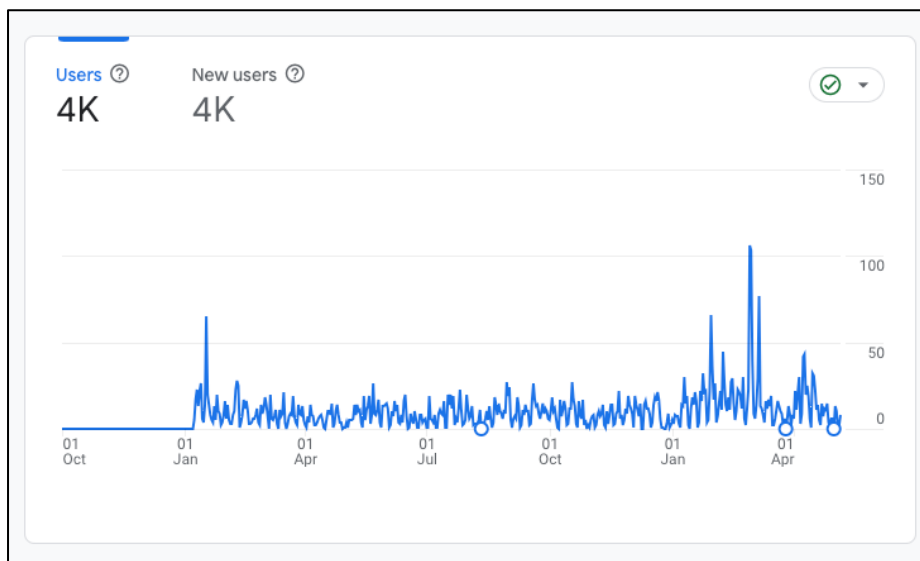


Figure 2-7 - Number of Page visitors on the EV4EU website

2.3 EV4EU social media

EV4EU project is present on social media (X/Twitter, LinkedIn, and Instagram) to increase the project visibility and reach to target audiences more effectively. More recently a WhatsApp group was created to serve as a direct communication channel with users engaged in the field tests in the Azores. Through this messaging platform, project researchers from all the Institutions involved in the Portuguese Demo and study participants

can interact, share information, ask questions, and discuss relevant topics related to the study. Participants can also communicate with each other and with the researchers in real-time through text messages, voice notes, images, and even video calls. In fact, the WhatsApp group can also serve to collect data by posting surveys, polls, or asking participants to share their experiences or insights related to the study.

Overall, social media channels have been effectively used to communicate the latest news of the project including publications, newsletters, participation and/or organization of events, inform about demonstration sites, to present EV4EU partners and their achievements, and to engage with project participants and other projects.

Through social media channels, the project has been able to raise awareness about all its activities and keep an ongoing flow of communication with stakeholders.

The goals previously defined for social media channels to increase the project visibility and the number of interactions and followers were kept:

- minimum of one publication per week;
- monthly assessment of social media data analytics to monitor the engagement with the public. This data was also collected for the KPI checks (Section 4);
- all publications will follow, consistently, the visual identity developed for EV4EU;
- publish publications with videos and images to increase engagement with the audience;
- Use handles of partner Institutions and researchers whenever possible to promote the interaction and reposts;
- display social media channels in the EV4EU project website and in dissemination materials and project presentations.

More specific strategies and updates for each social media channel will be provided in Sections 2.3.1, 2.3.2 and 2.3.3.

In the upcoming months the Coordination team will keep fostering this interaction and pushing a further involvement of partners in social media related activities. Below are identified some examples of existing campaigns on EV4EU social media accounts and others that are planned for the upcoming months.

Ongoing Social Media Campaigns:

One of the campaigns launched on EV4EU social media was “Introducing an #EV4EUer!”. This set of publications involve the participation of consortium partners and includes a profile photo and a quote about their background and motivation under the project.

Until now **26 #EV4EUer posts** were shared on our social media channels involving participants from partner Institutions. Some examples are provided below in Figure 2-8.



Figure 2-8 - #EV4EUer social media posts

Planned social media Campaigns

In the upcoming months, the project will increase activities on the four Demonstrators. This will be a great opportunity to share Demonstration activities and results on the project website and social media, fostering engagement with partners and other relevant stakeholders.

Section 2.7 will present the EV4EU Video of the four Demonstrators to be developed in the next months. The Coordination team will use the images and video material provided by the Demo partners, to promote a campaign for the next months focused on:

- Short videos about each Demo site;
- Images and curiosities about the ongoing activities;
- Quotes from each Demo Leader;
- Posts on the results registered in each Demo.

This campaign will contribute to strengthen the engagement between all members of the consortium and grow awareness to a broad audience about EV4EU Demo sites and other activities related to EV, and share the results obtained under the project.

2.3.1 EV4EU X/Twitter Account

EV4EU X/Twitter account: @ev4eu_eu, https://x.com/ev4eu_eu, has been active from M5, October 2022.

Regarding the content published on X/Twitter it has ranged from the announcement of upcoming events and initiatives, sharing new publications and project deliverables, insights into the project team's activities, and

social media campaign like EV4EUer. Retweets of relevant content shared by Institutions and consortium members are also part of the account focus.

Due to the nature of this social media channel, EV4EU X/twitter posts are short and concise. However, when further details are needed on a subject, we have used twitter threads to share longer thoughts or narratives by linking them together in a cohesive sequence. In May 2024 (M24), the EV4EU X/Twitter account had 114 followers and 180 posts published: 17 published in 2022 (since October), 121 in 2023 and 42 until the end of April 2024.

The KPI for the number of followers on X/Twitter is set at 200, indicating that there is still some progress to be made. X/Twitter's features like character limit, limited reach, engagement challenges, language barriers, or contextual limitations can in fact reduce the social media channel efficiency for communicating European projects.

In addition, according to data from The Infinite Dial®, an annual survey on social media from Edison Research with support from [Audacy](#), [Cumulus Media](#), and [SiriusXM Media](#) [2], X/Twitter has registered a dramatic decrease in the number of people who are using the service in the U.S, a trend that is also being registered worldwide.

However, throughout the upcoming months the goal will be to reinforce interaction (re-tweeting, commenting, and liking other tweets), keep on promoting engaging content related to the project outcomes and mostly about the Demo sites with images and videos, and post more than once per week. When possible, namely during EV4EU Scientific Committee meeting and General Assemblies, partners will be reminded to interact with/retweet EV4EU posts among their followers.



Figure 2-9 - EV4EU X/Twitter Account (April 2024)

X/Twitter Hashtags: #ev4eu_eu, #electricvehicles, #HorizonEurope, #electricgrid, #usercentric, #chargingvehicles, #sustainability, #zeroemission, #renewableenergy, #v2x

2.3.2 EV4EU LinkedIn Account

EV4EU LinkedIn account: <https://www.linkedin.com/company/ev4eu>, is active from M5, October 2022.

Since LinkedIn is addressed for professionals, this social media channel allows EV4EU to connect with a wide range of professionals, build synergies and foster knowledge transfer. In May 2024, 18 months after the EV4EU LinkedIn account launch, the LinkedIn channel had 1056 followers and 165 publications (with an average of 21 likes and 650 impressions per publication). On April 11th, we reached the 1000 followers, a milestone that was shared on the account (Figure 2-10).

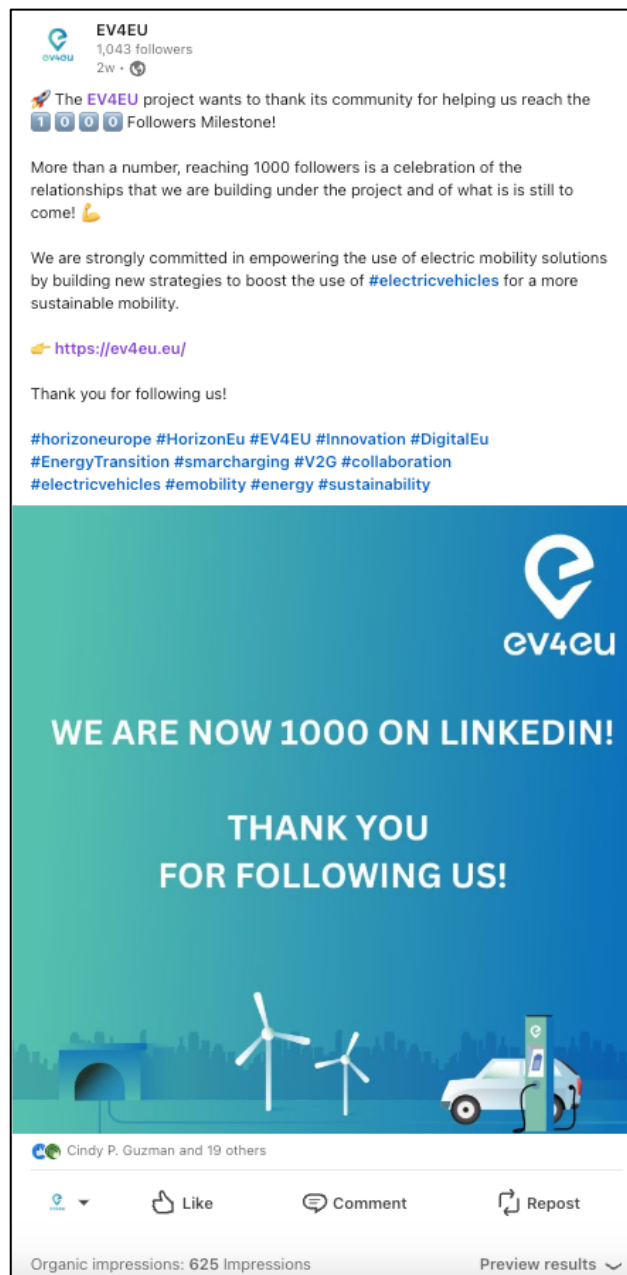


Figure 2-10 - EV4EU Post to celebrate 1000 followers.

The initial target of followers was 200, however due to the promising number registered so far, the goal will be to reach the 1250 followers by the end of the project lifespan.

For this purpose, it is essential to rely on the EV4EU consortium network and it is expected that partners continue sharing, liking, and commenting on posts. With this effort, the project will keep on reaching to a larger community of interested stakeholders and potential users, ensuring knowledge transfer when the project is completed.

2.3.3 EV4EU Instagram Account

EV4EU Instagram account: https://www.instagram.com/ev4eu_eu/, is active from M5, October 2022.

This social channel has been particularly interesting to promote our #EV4EUer campaign, photos of events and other initiatives, such as demonstration activities occurring in Portugal, Denmark, Slovenia and Greece, and that will be intensified in the upcoming months. Due to the nature of this social channel, posts are mainly focused on images and video clips and short sentences, thus targeting a younger audience. *Stories* are also used to increase the visibility and engagement with audiences.

In May 2024, 18 months after the Instagram account launch, the EV4EU Instagram account had already reached the proposed number of followers (100) and counts now with 125 followers and 114 publications (with an average of 8-10 likes per publication).

Since the initial target of 100 followers was already reached, the new internal target will be to reach the 150 followers by the end of the project lifespan.

To increase the visibility of this channel, the Coordination team will keep on following and interacting with relevant public interested in electric mobility and sustainability, mainly by promoting onsite initiatives and events. Also, partners with Instagram accounts are still expected to follow and promote the EV4EU Instagram and interact with followers.

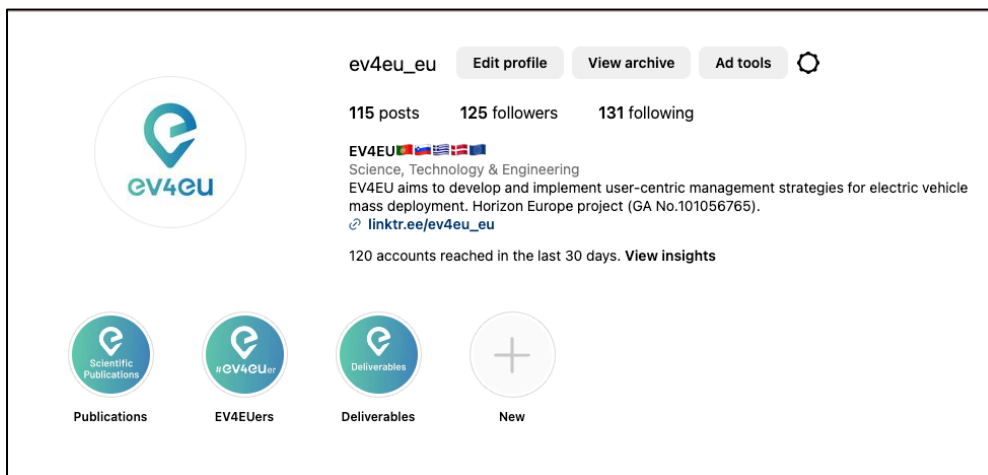


Figure 2-11 - EV4EU Instagram

2.4 EV4EU Newsletters

The EV4EU Consortium has proposed to release six newsletters, two per year, every six months.

Until the moment, 3 Newsletters have been issued and are available on the EV4EU website under [Newsletters: Issue 1](#) | [Issue 2](#) | [Issue 3](#). Until the end of the project 3 other Newsletters will be issued, the next is planned for June 2024.

All editions provide detailed information about the project and follow the same alignment:

- Editorial section - column written by the coordinator about the status of the project;
- EV4EU News – featuring latest updates on the Project progress;
- EV4EU Participation in Events – with a throwback to the main events;
- EV4EU Workshops – overview of the Ws organized by the project consortium;
- EV4EU Demo Sites – with the activities related to the Demonstrator sites;
- EV4EU Publications – list of all project Publications;
- EV4EU Consortium – logos of all consortium members and a brief presentation of a partner per edition. When applicable, disclose highlights about partners, partner interviews, etc;
- EV4EU upcoming events.

Information on how to subscribe and unsubscribe is provided in the newsletter. All partners are invited to contribute with their content.

When the newsletter is ready to be issued, it first circulates among the Scientific Committee for approval, through an internal mailing list. The newsletter is then digitally sent to subscribed contacts, disseminated via social media channels, and shared on the Newsletter tab of the EV4EU website.

An example of the last Newsletter issued ([Issue 3](#)) is presented in ANNEX I - Figure 1 to 5.

2.5 EV4EU Promotional Materials

At the beginning of the project a set of promotional materials were developed to present the project at events and conferences, among others, including the EV4EU logo, the tagline *Electric Vehicles Management for carbon neutrality in Europe*, EV4EU visual colours, and graphical elements that have been described in Deliverable 10.1. All materials also include the European flag and the project disclaimer. These materials are available for all partners in the internal EV4EU SharePoint folder.

In addition to the EV4EU Rollup banner and flyer developed in the first semester, **two new Roll Ups and an updated flyer are now available:**


- **Roll Up featuring the project four Demonstrators** including: a brief description of each, the consortium partners logos, and a QR Code to the EV4EU website (Figure 2-12);
- **Roll Up of the Portuguese Demo:** with information about the PT Demonstrator and the partners involved (Figure 2-13);

- **Project flyer:** updated to a new version that includes an update of the partner logos, the inclusion of the partners involved in each Demos, and the QR Code and link to the project website (Figure 2-14).

The Rollup banners have 85x200cm of dimension and are designed to be used in exhibitions, events, and conferences. The flyer is an A5 document bifold with 4 pages, with general information about the vision and goals of the project, demonstration sites, and the consortium. These materials have been shared among all EV4EU members and are available as a PDF file and editable file (Adobe illustrated format), allowing partners to update, translate for their own languages and adapt the material for their needs (specific meetings, conferences). These materials (PDF format) are also available on the EV4EU website.

At the moment, three other project Roll Ups are being developed for each one of the project Demonstrators: Slovenia, Greece and Germany.

Other materials can be developed throughout the project, according to the needs of the partners and to specific activities. The materials can be developed by any partner following the guidelines above described and the ones presented in the project Brand Guidelines document and should always be shared among all partners and uploaded in the EV4EU internal SharePoint.



EV4EU

Electric Vehicles Management
for carbon neutrality in Europe

The four demonstrators

Portugal

On the island of São Miguel, Azores, the Portuguese Demonstrator aims to test V2X strategies that facilitate electric vehicle integration in homes, buildings and companies.

Denmark

In Denmark, different methods of energy management in buildings and parking lots, integrating renewable energy production will be tested.


Slovenia

In Slovenia, the Demonstrator aims to assess the impact of V2X on the electricity network, the energy market and system services.


Greece

In Greece, a more intuitive platform for managing public charging stations will be demonstrated and the impact of electric vehicles on the grid will be investigated.


Consortium - Participants




Associated Partners



About our demos




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Figure 2-12 - EV4EU Roll-Up of the Four Demos, 85x200 cm



Figure 2-13 - EV4EU Roll-Up of the PT Demo, 85x200 cm

Consortium - Participants

 Instituto de Engenharia de Sistemas e Computadores, Investigação e Desenvolvimento em Lisboa	 Centro de I&D para as Tecnologias das Novas Energias (NEW) - Portugal https://www.edp.pt/particulares/
 Technical University of Denmark - Denmark https://www.dtu.dk/	 ABB Isomoting Slovenia https://www.abb.com/si/
 University of Ljubljana - Slovenia https://www.uni-lj.si/en/	 CIRCLE Consult, Denmark https://circleconsult.dk/en/circle-consult/
 Public Power Corporation, Greece https://www.aeh.gr/en/	 GEN-I, Slovenia https://open-i.si/en/
 Campus Bornholm, Denmark https://campusbornholm.dk/	 HEDNO - freestriders starter her
 Citizen AIGLON S.A., Greece https://www.aiglon.gr/	 Helano Electricity Distribution Network Operator - Greece https://helano.gr/en/
 Elektro Celje, Slovenia https://www.elektro-celje.si/en/	 Electricidade dos Açores S.A. - Portugal https://www.eda.pt/
 Smart Energy Lab - Portugal https://www.smartenergylab.pt/	 Bornholm Energi & Forsyning - Denmark https://www.beef.dk/en/

Associated Partners

 Associação Nacional de Transportes Públicos Rodoviários e Ferroviários, Portugal https://antn.pt/	 OBČINA KRSKO	 OBČINA ORTNO-POULJETINSKA ZBORNICARSKO https://www.oco-ortno.si/
 Nissan Motor Manufacturing (UK) Limited https://www.nissan.co.uk/	 REGIONALNA RAZVOJNA AGENCIJA POSAVJE https://www.rta-posavje.si/	 VESTAS WIND SYSTEMS A/S, Denmark https://www.vestas.com/en

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Electric Vehicles Management for carbon neutrality in Europe

Electric mobility against climate change

Global greenhouse gas (GHG) emissions continue to rise, and action to combat climate change is urgently needed. In Europe, 23% of GHG emissions came from the transport sector. In 2021 Europe had around 326 million vehicles, but only 1% were electric. Thus, we must invest in electric mobility and energy transition strategies to reduce carbon emissions and global warming.

www.ev4eu.eu

The EV4EU project

Electric vehicles management for carbon neutrality

EV4EU is a project funded by the Horizon Europe research and innovation program, aiming to develop and implement user-centric management strategies that allow massive growth of electric vehicles.

Using V2X (Vehicle-to-everything) technology that enables the exchange of data and energy between the vehicle and its surroundings, the project will develop tools and applications for the user, propose new types of chargers and develop an open platform for information exchange between systems, network operators and charging operators.

The proposed V2X management strategies will be tested in demonstrators installed in four European countries - Portugal, Denmark, Greece and Slovenia. The project, funded with 8.9 million euros, has a duration of 42 months.

The four demonstrators

Portugal

On the island of São Miguel, Azores, the Portuguese Demonstrator aims to test V2X strategies that facilitate electric vehicle integration in homes, buildings and companies.

Denmark

In Denmark, different methods of energy management in buildings and parking lots, integrating renewable energy production will be tested.

Slovenia

In Slovenia, the Demonstrator aims to assess the impact of V2X on the electricity network, the energy market and system services.

Greece

In Greece, a more intuitive platform for managing public charging stations will be demonstrated and the impact of electric vehicles on the grid will be investigated.

Figure 2-14 - EV4EU flyer, English version, A5 size, bi-fold

2.6 Media Activities

EV4EU has released a first Press Release (PR) at the beginning of the project, in Portuguese, to disclose the project launch. This PR was covered by several media outlets as reported in D10.1.

Since the beginning of the project, **32 references to EV4EU (Table 1) were made in the Media**. More recently the project was featured in one Radio Podcast in Portugal and in a Newspaper article in Slovenia, with an interview to a project member from the University of Ljubljana.

A press release is planned for the end of the project, to disclose the overall results but the partners will also work to promote specific media activities to disclose the Demonstration outcomes in national media. For example, in Portugal the implementation of the developed solutions is planned to be tested in June in the Azores. At that time, we will promote a media article and a media coverage at the Portuguese Demo. The Coordination team will also encourage each Demo Leader to do the same in each Country, trying to take most of the Demo results and disclosing it via media channels.

All partners are again encouraged to develop press releases, in English and the local language, to ensure that EV4EU-related information reaches all target audiences in all the consortium countries.

When such publications are planned, they must be communicated to the EV4EU Coordination Team through a dedicated channel (mailing list: ev4eu.coordination@inesc-id.pt). The Coordination Team will keep a record of all publications in a database and will also advertise the content in the News section of the website and social media channels.

Table 1 - EV4EU articles in the Media

ID	Date	Title	Media	Country	Link
1	27/12/21	30 Projetos Com Participação Portuguesa Captam Cerca De 21 M€ No Horizonte Europa	National Innovation Agency (ANI) website news	Portugal	https://www.ani.pt/pt/noticias/not%C3%ADcias-ani/30-projetos-com-participa%C3%A7%C3%A3o-portuguesa-captam-cerca-de-21-m-no-horizonte-europa/
2	31/12/21	Portugal capta cerca de 21 milhões no Horizonte Europa	Vida Económica newspaper	Portugal	https://www.vidaeconomica.pt/vida-economica-1/portugal-capta-cerca-de-21-milhoes-no-horizonte-europa
3	14/01/22	Portugal lidera projeto de carros elétricos	RTP Madeira	Portugal	https://www.rtp.pt/madeira/sociedade/portugal-lidera-projeto-de-carros-eletricos_84044
4	14/01/22	Projeto europeu liderado por Portugal quer uso generalizado de carros elétricos	Tek Sapo	Portugal	https://tek.sapo.pt/noticias/negocios/artigo-projeto-europeu-liderado-por-portugal-quer-uso-generalizado-de-carros-eletricos
5	14/01/22	Uso generalizado de carros elétricos é objetivo de projeto europeu liderado por Portugal	Expresso	Portugal	https://expresso.pt/economia/2022-01-14-uso-generalizado-de-carros-eletricos-e-objetivo-de-projeto-europeu-liderado-por-portugal
6	14/01/22	Uso generalizado de carros elétricos é objetivo de projeto europeu liderado por Portugal	Observador	Portugal	https://observador.pt/2022/01/14/uso-generalizado-de-carros-eletricos-e-objetivo-de-projeto-europeu-liderado-por-portugal/
7	14/01/22	Uso generalizado de carros elétricos é objetivo de projeto europeu liderado por Portugal	Notícias ao Minuto	Portugal	https://www.msn.com/pt-noticias/ultimas/uso-generalizado-de-carros-el%C3%A9tricos-%C3%A9-objetivo-de-projeto-europeu-liderado-por-portugal/ar-AASMRsu
8	14/01/22	Portugal lidera projeto europeu para promoção dos carros elétricos	Sapo	Portugal	https://eco.sapo.pt/2022/01/14/portugal-lidera-projeto-europeu-para-promocao-dos-carros-eletricos/
9	14/01/22	Uso generalizado de carros elétricos é objetivo de projeto europeu liderado por Portugal	Mundo Atual	Portugal	https://mundoatual.pt/uso-generalizado-de-carros-eletricos-e-objetivo-de-projeto-europeu-liderado-por-portugal/

10	14/01/22	Uso Generalizado De Carros Eléctricos É Objetivo De Projeto Europeu Liderado Por Portugal	JM Madeira	Portugal	https://www.im-deira.pt/nacional/ver/155654/Uso_generalizado_de_carros_eletricos_e_objetivo_de_projeto_europeu_liderado_por_Portugal
11	14/01/22	Portugal lidera projeto europeu de carros elétricos	Bom dia Portugal	Portugal	https://bomdia.eu/portugal-lidera-projeto-europeu-de-carros-eletricos/
12	14/01/22	Uso generalizado de carros elétricos é objetivo de projeto europeu liderado por Portugal	Açoriano Oriental	Portugal	https://www.acorianooriental.pt/noticia/uso-generalizado-de-carros-eletricos-e-objetivo-de-projeto-europeu-liderado-por-portugal-334330
13	14/01/22	9 Milhões de euros para uso generalizado de carros elétricos	Sapo VMTV	Portugal	https://vmtv.sapo.pt/9-milhoes-de-euros-para-uso-generalizado-de-carros-eletricos/
14	14/01/22	The generalization of the electric car is the objective of a European project led by Portugal	Move Aveiro	Portugal	https://www.moveaveiro.pt/en/la-generalisation-de-la-voiture-electrique-est-objectif-dun-projet-europeen-mene-par-le-portugal
15	14/01/22	Portugal lidera projeto europeu de carros elétricos	Daily Meu Capital	Portugal	https://daily.meucapital.pt/portugal-lidera-projeto-europeu-de-carros-eletricos/
16	14/01/22	Portugal lidera projeto europeu para promoção dos carros elétricos	Anecrare Revista	Portugal	https://www.anecrarevista.pt/2022/01/17/portugal-lidera-projeto-europeu-para-promocao-dos-carros-eletricos/
17	14/01/22	Uso generalizado de carros elétricos é objetivo de projeto europeu liderado por Portugal	Comunidades Lusófonas	Portugal	https://comunidadeslusofonas.pt/uso-generalizado-de-carros-eletricos-e-objetivo-de-projeto-europeu-liderado-por-portugal/
18	14/01/22	2022 traz novas estreias ao setor automóvel	ESEV Comunicação	Portugal	https://www.esev.ipv.pt/dacomunicacao/?p=14798
19	14/01/22	Projeto europeu pretende generalizar uso de carros elétricos	Indústria e Ambiente	Portugal	https://www.industriaeambiente.pt/noticias/projeto-europeu-pretende-generalizar-uso-carros-eletricos/
20	01/12/22	INESC ID coordinates a European project on electric mobility	INESC ID news	Portugal	https://www.inesc-id.pt/inesc-id-coordinates-a-european-project-on-electric-mobility/
21	01/03/22	EV4EU featured in “Exame Informática”	Exame informática Magazine	Portugal	https://www.inesc-id.pt/ev4eu-featured-in-exame-informatica/
22	14/03/22	Europa tem 95 mil milhões de euros para investigação e inovação: quanto e onde Portugal mais pode aproveitar?	Sapo Brasil	Portugal	https://sapobrasil.com.br/viagens/artigos/europa-tem-95-mil-milhoes-de-euros-para-investigacao-e-inovacao-quanto-e-onde-portugal-mais-pode-aproveitar
23	01/06/22	EV4EU launches today	INESC ID news	Portugal	https://www.inesc-id.pt/ev4eu-launches-today/
24	23/06/22	Governo dos Açores integra novo projeto europeu que promove teste de soluções inovadoras de mobilidade elétrica	Governo dos Açores news	Portugal	https://portal.azores.gov.pt/web/comunicacao/news-detail?id=7356042
25	25/06/22	Açores Integram Novo Projeto Europeu Que Promove Teste De Soluções Inovadoras De Mobilidade Elétrica	Praia Expresso online newspaper	Portugal	https://praiaexpresso.com/2022/06/25/acoes-integram-novo-projeto-europeu-que-promove-teste-de-solucoes-inovadoras-de-mobilidade-eletrica/
26	09/07/22	Crescono ricerca e fondi che integrano le batterie nelle reti elettriche europee	AUTO21	Italy	https://www.auto21.net/2022/07/09/crescono-ricerca-fondi-per-integrare-batterie-auto-in-reti-elettriche-europee/
27	13/01/23	EV4EU’s new website is up: more on the massification of electric vehicles	INESC ID news	Portugal	https://www.inesc-id.pt/ev4eus-new-website-is-up-more-on-the-massification-of-electric-vehicles/
28	24/01/23	V Gen-I SMO DEL PROJEKTA "EV4EU"	GEN-I website novice	Slovenia	https://gen-i.si/novice/v-gen-i-smo-del-projekta-ev4eu/
29	30/01/23	GEN-I sodeluje pri projektu EV4EU	NASTIK - Revija Slovenskega Elektrogopodarstva	Slovenia	https://www.nas-stik.si/novice/podrobnosti-novice/gen-i-sodeluje-pri-projektu-ev4eu

30	24/02/23	GEN-I bo v okviru projekta EV4EU postavil 10 naprednih V2X polnilnih postaj	Energetika.NTE SLO	Slovenia	GEN-I bo v okviru projekta EV4EU postavil 10 naprednih V2X polnilnih p (energetika.net)
31	14/02/2024	EP. 1723 HUGO MORAIS – PROJETO EV4EU PROMOVE A INTEGRAÇÃO DE VEÍCULOS ELÉTRICOS EM CIDADES EUROPEIAS	Antena 1 - 90 Segundos de Ciência Podcast	Portugal	https://www.90segundosdeciencia.pt/episodes/ep-1723-hugo-moraiss/
32	07/03/2024	IZMENJAVA IN FORMACIJA ZA OPTIMIZACIJO SISTEMA	DELO Newspaper	Slovenia	https://www.delo.si/novice/znanoteh/zakaj-pv-modul-na-strehi-avtomobila/

2.7 EV4EU Videos

Short Videoclips about the EV4EU project Deliverables (Figure 2-15), have already been developed and shared on social media channels to increase awareness about the project. The idea is to share throughout the project, the results obtained under the project WPs and tasks in short presentation videos to be disclosed to a broader audience in our social Media channels using a simpler language and explanation.

Additionally, two other videos have been prepared by INESC ID to disclose the project in two outreach events where EV4EU represented INESC ID at the event Info Stand. All events will be listed in Section 3.

Finally, one video is being prepared featuring the activities being developed at the demonstration sites. At the moment, information about each Demo site is being collected counting on the support of each Demo Leader to share photos, videos etc. to allow the development of this overview video by a professional video production team.

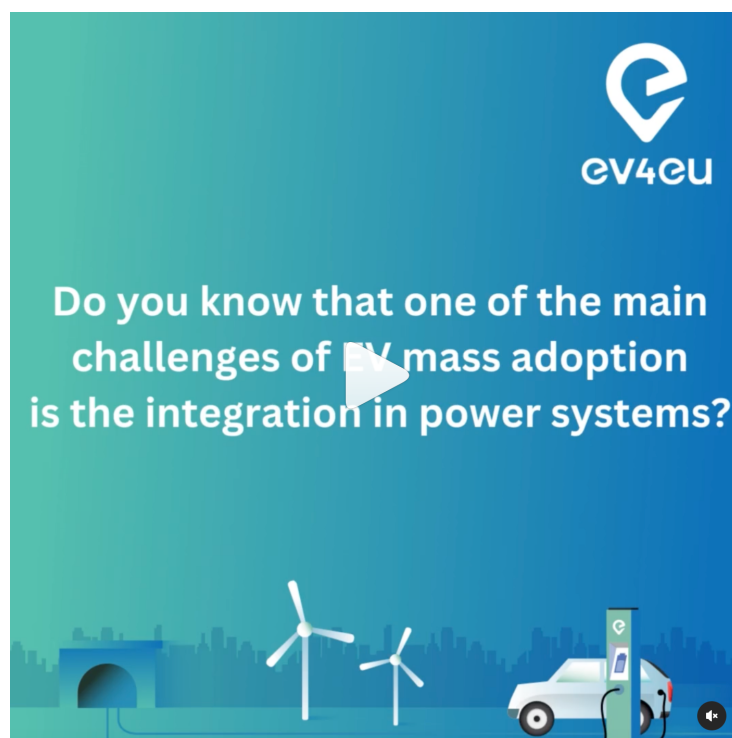


Figure 2-15 - EV4EU Video of Deliverable
([Instagram Link](#))

3 Dissemination Activities

Section 2 offered an update of the communication tools and channels that are being used within the EV4EU project to promote its actions and results to multiple audiences. Section 3 will present an update of the dissemination activities undergone under the project to raise awareness of the results and, most importantly, to make them public for stakeholders to exploit them for other activities (e.g., research, policymaking, training, among others).

This Section consists of a summary of the main dissemination activities held under the EV4EU project: publication of scientific research articles and books (Section 3.1) participation in conferences and workshops (Section 3.2), organization of workshops and events (Section 3.3) development of patents (Section 3.4) and synergies with peer projects (Section 3.5). These actions reflect the commitment of all partners from research, industry, and academia, to comply with contractual arrangements, to properly disseminate and efficiently exploit the results generated within the project.

By M24, EV4EU had already participated in 42 events, organized 6 workshops, published 23 scientific articles, 1 article in a specialized magazine, presented 3 scientific posters and participated in 14 liaison/joint activities with European projects. A key event was held in month M16 (20-21 of September 2023) hosted by DTU, the public e-mobility event called “The charging infrastructure of the future” in Risø campus. The event was a joint effort by 4 national and EU funded projects. During the event, several key achievements of EV4EU were presented and/or demonstrated to the participants. Partners from all the demonstrations have the chance to present their findings.

To maximize the impact of the project, several activities have been held for the dissemination, communication, and exploitation of the EV4EU results. The following sections present a summary of the impact of the dissemination and communication activities during the M1-M24.

3.1 EV4EU Scientific Research Publications

EV4EU results have already been published in well-established peer-reviewed scientific journals and conference journals. By M24, **fourteen conference papers (Table 2) and nine scientific articles (Table 3) have been published**. By the end of the project, we expect to have at least 25 scientific articles published by all consortium partners.

In terms of published papers only two are missing to reach the objective of 25 publications, so the new internal goal will be to have 30 papers published under the project. Three other papers were already submitted and are waiting for approval.

All partners are requested to inform the EV4EU Coordination Team (ev4eu.coordination@inesc-id.pt) about the submitted and accepted publications.

Table 2 - EV4EU Conference Papers (14)

ID	Paper Title and hyperlink	Authors	Leading Institution	Year
1	V2X Integration in Self-Management System (Poster presentation)	Samuel Matias, João Mateus, Manuel Pereira, Tarcísio Silva, António Furtado, Hiras Ziras, Mattia Marinelli, Luiz Dias, Rafael Rodrigues, Hugo Morais.	EDP NEW	2023
2	Intelligent Participation of Electric Vehicles in Demand Response Programs	Cindy Guzmán, Panagiotis Padiaditis, Alexios Lekidis, Hugo Morais	INESC ID	2023
3	Modeling demand response of charge point operators to consider flexibility in grid planning	Antonio Jerónimo, Pedro Carvalho, Céilia Jesus, Luis Ferreira, Hugo Morais	INESC ID	2023
4	A Computational Implementation for Creating Electric Vehicles Profiles	Cindy Guzmán, Eduardo Gomes, Lucas Pereira, Hugo Morais.	INESC ID	2023
5	Energy Resources Scheduling in Energy Communities: A comparison between Mixed Integer Linear Programming and hybrid-adaptive differential evolution with decay function	Eduardo Gomes, Lucas Pereira, Hugo Morais	INESC ID	2023
6	Development of V2G services within the EV4EU project: planning of the Slovenian demonstrator	Igor Mendek, Anton Kos, Matej Fajgelj, Matjaž Jug, Andreja Smole, Rok Lacko, Matej Zajc.	UL	2023
7	Economic advantages of EV participation in grid service for homeowners and utilities	Francisco Branco, Samuel Matias, João Mateus, Lascano, Cindy Guzmán, Manuel Pereira; Herbert Amezcuita, Hugo Morais.	NEW	2023
8	Bidirectional electric vehicle charging for flexibility services development	Tim Mrentic, Igor Mendek, Matej Zajc	UL	2023
9	Validation of Electric Vehicle Smart Charging Strategies	Anna Malkova, Simone Striani, Jan Martin Zepter, Mattia Marinelli, Lisa Calearo	DTU	2023
10	Online optimization of a workplace electric vehicle charging station under grid constraints	Anna Malkova; Zepter, Jan Martin Zepter, Mattia Marinelli	DTU	2023
11	Distributed control of electric vehicle clusters for user-based power scheduling	Xihai Cao, Charalampos Ziras, Jan Engelhardt, Mattia Marinelli	DTU	2023
12	Estimation of Electric Vehicles with V2G Capabilities Potential for Market Participation	Tim Marentič, Igor Mendek, Anton Kos, Matej Malenšek, Hugo Morais, Matej Zajc	INESC ID	2024
13	A Computational Implementation to Forecast Electric Vehicles Usage in the Power System	Herbert Amezcuita, Cindy Guzmán, Hugo Morais.	INESC ID	2024
14	Optimal Management of Electric Vehicles in a Building	Cindy P. Guzman, Francisco Branco, Samuel Matias, Larissa Montefusco, Miguel Quinto, Herbert Amezcuita, João Taveira, António Grilo, Mário Nunes, Toni Garcês, Hugo Morais.	INESC ID	2024

Table 3 - EV4EU Journal Papers (9)

	Paper Title and hyperlink	Authors	Leading Institution	Year
1	New Technologies for optimal scheduling of electric vehicles in renewable energy-oriented power systems: a review of deep learning, deep reinforcement learning and blockchain technology.	Wenshuai Ma, Junjie Hu, Li Yao, Zhuoming Fu, Hugo Morais, Mattia Marinelli	DTU	2022
2	New approach for electric vehicles charging management in parking lots considering fairness rules.	Hugo Morais	INESC ID	2023
3	Model-Driven Engineering Techniques and Tools for Machine Learning-Enabled IoT Applications: A Scoping Review.	Zahra Mardani Korani, Armin Moin, Alberto Rodrigues da Silva, João Carlos Ferreira	INESC ID	2023
4	Electric Vehicles Charging Using Photovoltaic Energy Surplus: A Framework Based on Blockchain	Irvylle Cavalcante, Jamilson Junior, Jonatas Manzolli, Luiz Almeida, Mauro Pungo, Cindy Guzman, Hugo Morais	INESC ID	2023
6	On the trade-off between profitability, complexity and security of forecasting-based optimization in residential energy management systems	Nils Müller, Mattia Marinelli, Kai Heussen, Charalampos Ziras	DTU	2023
7	P2P flexibility markets models to support the coordination between the transmission system operators and distribution system operators.	Marques, J.; Soares, T.; Morais, H.;	INESC	2023
7	A semi-distributed charging strategy for electric vehicle clusters	Cao, X.; Striani, S.; Engelhardt, J.; Ziras, C.; Marinelli, M.	DTU	2023
8	PyECOM: A Python tool for analyzing and simulating Energy Communities	Gomes, E.; Pereira, L.; Esteves, A.; Morais, H	INESC	2023
9	Bidirectional power exchange between electric vehicles and the grid V2G for the development of flexibility services with aggregation of EV fleet	Marentič, T.; Mendek, I.; Anžur, K.; Zajc, M.	UL	2023

3.2 EV4EU Participation in Events/Conferences

The project partners have participated in both national and international events (workshops, meetings, conferences, outreach events) to disseminate EV4EU results to relevant audiences. Attendance in these meetings enabled knowledge exchange with relevant communities, projects, and initiatives, gather up-to-date information regarding the latest news on EV and V2X and forested networking.

By M24, the **EV4EU consortium had already attended 42 events** that are listed in Table 4. The initial target was to participate in 20 events, so the anticipated number has been highly exceeded. The expectation is now to attend by the end of the project 55 events. Regarding project presentations, the expected number has also

been highly exceeded (5 were expected and 29 registered) so the new target will be of 35 by the end of the project.

EV4EU Participation in events by members of the consortium is communicated to the Coordination Team through the e-mail ev4eu.coordination@inesc-id.pt, ideally with two weeks of advance so it can be shared on the website and social media channels. The event is listed in a excel file and a folder is created under “WP 10 - Events” to upload photos and, when existing, the EV4EU presentation or other relevant information. Since month 22 a “News & Events Submission template”, already presented in Section 2.1. is available for all partners to fill with further information about the event, that is then shared on a news article on the website and social media.

Table 4 - EV4EU Attended Events

ID	Date	Event	Location	EV4EU Participants
1	7-9/9/2022	Summer School Materials for Energy Transition	Portugal	Smart Energy Lab (SEL)
2	21/09/22	Start Engines for Innovative Materials and Energy	Portugal	INESC ID
3	26-30/09/2022	European Sustainable Energy Week 2022	Belgium	SEL
4	09/11/22	Webinar: R&D Sessions powered by EDP-NEW - Vehicle to Grid: A powerful tool for decarbonization in electric mobility	Portugal	EDP NEW, INESC-ID and EDA
5	11/11/22	Electric & you: Advantages and Disadvantages of Electric and Hybrid Vehicles- outreach event	Portugal	INESC ID
6	09/11/22	Electric Vehicle Charging infrastructure event	Denmark	DTU
7	28/11/22	TradeRES 2nd Public Workshop	International	INESC ID
8	10/01/23	2nd GA meeting - Slovenia	Slovenia	EV4EU partners
9	19/01/23	Informative session on renewable energy, energetic efficiency, and electric mobility - presentation of the EV4EU project	Portugal	EV4EU partners
10	03-04/03/2023	Technical Meeting at Portuguese DEMO	Azores, Portugal	DTU, CIRCLE, BEOF
11	07-09/03/2023	International Fair Trade for Automation and Mechatronics) FAIR Lubljana , Slovenia	Slovenia	INESC-ID
12	21/03/2023	Two-day meeting in Bornholm, DK for the projects ACDC and EV4EU	Denmark	INESC ID, DTU and EDP NEW
13	28-29/03/2023	Bridge General Assembly	Belgium	INESC ID and HEDNO
14	31/03/23	Workshop Tecnico Galp	Portugal	UL, Elektro Celje and GEN-i
15	25/04/23	EU Project Forum - Workshop for EU funded V2X projects	Belgium	INESC ID
16	15/05/23	EIA HEV-TCP Task 43 workshop: Re-evaluation of barriers to VGI		EDP NEW, INESC ID, EDA and DTU
17	30/05/23	16th Conference of Slovenia Electrical Power Engineers CIGRE-CIRED	Slovenia	INESC ID
18	06/06/23	EEM23 Conference - EEM23 - 19th International Conference on the European Energy Market	Finland	UL

19	12/06/23	CIRE2023	Italy	INESC ID
20	12/06/23	CIRE2023	Italy	DTU
21	12/06/23	XIX Intsikt Symposium 2023	Bosnia and Herzegovina	INESC ID
22	26/06/23	Cooperation opportunities meeting: Synergy club EV4EU + Scale		INESC ID, UL and DTU
23	21/07/23	Workshop "The consumer's role in Energy Transition"	Brazil	
24	29/08-01/09/23	58th International Universities Power Engineering Conference, UPEC2023	Ireland	EDA
25	04-06/09/2023	SEST 2023		INESC ID
26	20/21-09/2023	The charging of the future" event	Denmark	INESC ID
27	28-29/09/2023	<u>32th International Electrotechnical and Computer Science Conference</u>	Slovenia	EDP NEW
28	25/09/23	7th E-Mobility Power System Integration Symposium	Denmark	EDP NEW
29	29/09/23	2023 European Researcher's Night (Macaronight 2023)	Portugal	INESC ID and HEDNO
30	19-20/10/23	SMART SUMMIT Lagoa	Portugal	INESC ID
31	23-26/10/2023	IEEE ISGT Europe	France	INESC ID and UL
32	23-26/10/2023	Special Session on "Intelligent applications for energy communities and storage - IEEE ISGT Europe 2023	France	INESC ID
33	03/11/23	Energy Economics International Conference (EEIC2023), the 7th APEEN Annual Conference	Portugal	UL
34	10/11/23	EDP R&D Tech Conference	Portugal	INESC ID
35	25/01/24	7th EcoMobility Conference	Greece	INESC ID and HEDNO
36	25/01/24	INESC Brussels HUB Winter Meeting	Portugal	INESC ID
37	05/02/24	2024 RTR Conference	Belgium	INESC ID and UL
38	09/02/24	V2X Cluster Meeting	Belgium	INESC ID
39	23/02/24	JEEC 2024 - Electrical and Computer Engineering Seminar Series by Técnico	Portugal	INESC ID
40	17/04/24	Posvet PIES Conference	Slovenia	UL
41	20/04/24	Técnico Open Day 2024	Portugal	INESC ID
42	24/04/24	Debate on Electric Mobility - IEEE Secção Minas Gerais	Remote	INESC ID

Currently, six Conference and events are already in the project agenda for the upcoming months:

- June 2024 - Folkemødet Event – Outreach event in Denmark;
- June 2024 - CIRE2024 Conference in Vienna, Austria;
- June 2024 - IEEE Melecon 2024 in Porto, Portugal;
- July 2024 - 2024 IEEE Power & Energy Society General Meeting in Seattle (USA);
- October 2024 - ENLIT 2024 in Milan, Italy.

3.3 EV4EU Organization of Workshops/Events

EV4EU partners were expected to organize at least two workshops and four events, one per demonstration site. Until month 24th, **six workshops have already been organized and one event took place at the Portuguese Demo site**. All are listed in Table 5Table 5

Since demonstration activities only started at M13, other Demo events are expected to occur during the 3rd and 4th year of the project. These events are a great platform to increase collaboration with stakeholders, other projects, and the community, allowing the exchange of research, information, and new findings.

Other Workshops are planned for the upcoming months, namely:

- **Special Session at [IEEE MELECON 2024](#)**, a major international forum presenting design methodologies, techniques, and experimental results in emerging electro-technologies. Session title: “Enabling Electric Mobility for Sustainable Grids, Cities, and Society”, hosted by Hugo Morais and Cindy Guzman (INESC ID, Portugal) and Matej Zajc (University of Ljubljana, Slovenia).

Table 5 - EV4EU workshops organised.

ID	Workshop	Location	Attendees	Date	Main Organizer
1	Workshop on current and future EV user experiences in Slovenia	University of Ljubljana Ljubljana, Slovenia	9	13/01/2023	SEL
2	Workshop on current and future EV user experiences in Greece	PPC Department Athens, Greece	8	31/01/2023	SEL
3	Workshop on current and future EV user experiences in Azores, Portugal	Electricidade dos Açores Headquarters, Açores, Portugal	12	03/03/2023	SEL
4	Workshop on current and future EV user experiences in Denmark	DTU Risø Campus Risø, Denmark	21	12/07/2023	SEL
5	Workshop at the 7th EcoMobility Conference	Hellenic Motor Museum Athens, Greece	50	25/01/2024	HEDNO and INESC ID
6	Workshop and Technical Visits at the Portuguese Demo in the Azores	Electricidade dos Açores Headquarters Azores, Portugal	14	22/02/2024	EDP NEW and SEL

3.4 EV4EU Posters

Posters presented under Horizon Europe projects play a crucial role in disseminating research findings, fostering collaboration, and advancing scientific knowledge, thereby contributing to the broader goals of the project. EV4EU posters are intended to communicate the project scientific information to a diverse audience and have been displayed at conferences, workshops, and other scientific gatherings to share knowledge and foster discussions among researchers, policymakers, and other stakeholders.

Until now, **three posters have already been presented** under the EV4EU project and are listed in Table 6 and three others were already accepted, two to be presented at CIRED 2024 and another at Melecon 2024.

Table 6 - EV4EU Posters

	Poster Title	WP/Task	Authors	Link
1	Energy Resources Scheduling in Energy Communities: A comparison between Mixed Integer Linear Programming and Hybrid-adaptive Differential Evolution with decay function. ISGT Europe 2023	WP2/T2.2	Eduardo Gomes, Lucas Pereira, Hugo Morais.	https://ev4eu.eu/wp-content/uploads/2023/11/ISGT2023-Poster-EG.pdf
2	V2X Integration in Self-Consumption Energy Management. Poster 11330. CIRED 2023	WP2/T2.1	Samuel Matias (EDP NEW), João Mateus (EDP NEW), Manuel Pereira (INESC ID), Tarcísio Silva (EDA), António Furtado (EDA), Charalampos Ziras (DTU), Mattia Marinelli (DTU), Luiz Dias (EDP NEW), Rafael Rodrigues (EDP NEW), Hugo Morais (INESC ID)	http://ev4eu.eu/wp-content/uploads/2023/06/poster_cired2023_10330.pdf
3	Project EV4EU Clustering Applications in Electric Mobility		Marcelo Forte, Cindy P. Guzman, Hugo Morais	https://ev4eu.eu/wp-content/uploads/2024/01/Poster_INESC_Winter_Meeting_202325.pdf

3.5 EV4EU Thesis

Thesis developed under Horizon Europe projects are a way to advance scientific knowledge, drive innovation, and address societal challenges through high-quality research and interdisciplinary collaboration, ultimately contributing to the goals and objectives of the projects. The number of Thesis was not one of the outputs/KPIs considered under the initial proposal but due its relevance to the overall impact of the project, they will be now included and presented in Deliverable 10.2.

Under the EV4EU project, **nine theses were already developed and are listed in Table 7** and an additional thesis will soon be concluded (June 2024). These research projects are an excellent way of advancing scientific knowledge, pushing the boundaries of research in their respective fields, and producing high-quality research outputs.

Table 7 - Thesis developed under the E4EU Project

ID	Thesis/Dissertation	WP/Task	Authors	Link
1	Clustering Applications in E-mobility	WP3 / T3.3	Master of Science (MSc) Marcelo Braço Forte	https://fenix.tecnico.ulisboa.pt/ursos/meec21/dissertacao/565303595503746
2	Enterprise Architecture for EV Ecosystems	WP1 / T1.4	MSc Francisco Pavão	https://fenix.tecnico.ulisboa.pt/departamentos/dei/dissertacao/128253548923572
3	Modelling EV Charging Stations Flexibility for Long-Term Distribution Network Planning	WP4 / T4.1	MSc António Maria Pereira Martins Jerónimo	https://fenix.tecnico.ulisboa.pt/ursos/meec21/dissertacao/846778572214557
4	Impact of mass deployment of EV energy and power systems	WP1 / T1.2	MSc Pedro Pereira	https://fenix.tecnico.ulisboa.pt/ursos/meec21/dissertacao/846778572214486
5	Optimization of Routes of EV taking into account the Status of Charging Stations	WP3 / T3.4	MSc Gonçalo Fernandes	https://fenix.tecnico.ulisboa.pt/ursos/meec21/dissertacao/1972678479055849
6	Development and testing of smart charging strategies for a workplace parking lot	WP2 / T2.3	MSc Kristoffer Peder	https://backend.orbit.dtu.dk/ws/portalfiles/portal/328783457/MScKPRReport_2.pdf
7	Optimal operation of renewable-powered EV charging stations	WP2 / T2.2	MSc Miguel Moreno Yerro	https://orbit.dtu.dk/en/activities/optimal-operation-of-renewable-powered-ev-charging-stations
8	Vehicle-to-grid services for prosumers	WP2 / T2.3	Bachelor of Science (BSc) Caroline Thellefsen & Laura Lomholt	https://backend.orbit.dtu.dk/ws/portalfiles/portal/326543794/Bachelorprojekt_Caroline_Laura.pdf
9	Standardization of local flexibility markets through capacity limitation services	WP4 / T4.2	MSC Shahatphong Pechrak.	https://orbit.dtu.dk/en/activities/standardization-of-local-flexibility-markets-through-capacity-lim

3.6 Patents

EV4EU partners have proposed at least 1 patent: on parking lot energy management and cost-effective V2X station. Those outcomes will demonstrate the excellence and strong market potential of the EV4EU advances and will assure that the project will continue and lead to further economic and scientific results.

3.7 Synergies with Peer Projects

EV4EU partners have been committed to promoting liaisons and joint activities with other European research projects, communities, and initiatives. Those synergies target mainly the Scientific communities, peer projects, and energy-related industry and will be kept throughout the project lifespan.

Bridge Initiative: EV4EU has joined the BRIDGE initiative that gathers Smart grid, Energy Storage, Islands and Digitalization projects to promote the exchange of knowledge, best practices, and experience among projects. BRIDGE is structured over 4 specific work groups (WG): regulation, business models, data management and customer engagement, and EV4EU has assigned expert partners to join each WG.

Until now, EV4EU has been represented in two Bridge General assemblies (2023 and 2024). The project Coordinator at INESC ID and some project partners have also been regularly involved in Bridge working groups, all listed in Table 8

V2X Cluster Meetings: The V2XCluster is a group of 5 Horizon Europe projects on smart charging that were all funded under the Horizon Europe 2022 Call: SCALE Project, EV4EU, DriVe2X, FLOW Project and XL-CONNECT. Since 2023 the group of projects has organized regular meetings to discuss the vision for the Cluster as well as business models for smart charging and other common challenges. Previous Cluster meetings are listed in Table 8 and a new gathering is already scheduled to take place in June (Porto, Portugal), during the 2024 edition of the Melecon Conference where EV4EU will host a Special Session.

Table 8 - Liaisons and join activities with other projects/initiatives.

ID	Event/Activity/Initiative	Projects Involved	Link	Date
1	Integration in Bridge: Cooperation between projects in the fields of smart grid, energy storage, islands, and digitalization	BRIDGE	https://bridge-smart-grid-storage-systems-digital-projects.ec.europa.eu/news/new-bridge-brochure-2023-out	N/A
2	Participation in TradeRes workshop	TradeRes project	https://traderes.eu/	28/11/22
3	Hadrian Project participated in a EV4EU workshop	EU Horizon 2020 Project HADRIAN	https://hadrianproject.eu/	13/01/23
4	BRIDGE GA meeting	BRIDGE	https://bridge-smart-grid-storage-systems-digital-projects.ec.europa.eu/news/bridge-general-assembly-2023-conclusions-next-steps	28/03/23
5	EU project Forum V2X workshop	AVERE	https://www.linkedin.com/posts/ev4eu_euprojectforum-v2x-horizoneurope-activity-7056679670049570816-8Gr-?utm_source=share&utm_medium=member_desktop	25/04/23

6	Special session: The cross-sectoral role of bidirectional EV charging in European smart cities: A snapshot into 2050, EEM23 conference	Drive2X	https://www.lut.fi/sites/default/files/media/documents/EEM23_SS_Drive2X_Morais_2023-06-08.pdf	08/06/23
7	Involvement in 2Zero Partnership	2ZeroPartnership	https://www.2zeroemission.eu/research-projects/	14/07/23
8	Cooperation opportunities meeting: synergy club & EV4EU + Scale	Eurocities	Remotely by teams	26/06/23
9	Co-creation event with SCALE, Drive2X, EV4EU - Special Session on V2X Visions	SCALE; DRIVE2X, EV4EU	N/a	
10	IEA Task 43 workshop on interoperability for VGI	HEV TCP	https://ieahev.org/tasks/43/	24/05/23
11	Involvement in the V2X Cluster	SCALE, Drive2X, EV4EU, FLOW, XLConnect	N/a	N/A
12	Involvement in the Synergy Club	EuroCities	https://www.linkedin.com/feed/update/urn:li:activity:7123690049283473408/	27/10/23
13	V2X Cluster Meeting	SCALE, Drive2X, FLOW Project and XL-CONNECT	https://www.linkedin.com/feed/update/urn:li:activity:7161737085094240256/	09/02/2024
14	BRIDGE meeting of WG BM Task 2 (EDP NEW)		N/a	20/02/2024
15	SCALE Advisory Board Meeting	SCALE	https://www.linkedin.com/posts/scale-project-smart-charging-alignment-for-europe_business-standards-authorities-activity-7181203579532115968-urCr?utm_source=share&utm_medium=member_desktop	02/04/2024
16	Bridge General Assembly	Drive2X	https://ev4eu.eu/2024/04/24/ev4eu-presented-at-bridge-general-assembly/	09/04/2024
17	Debate on Electric Mobility - IEEE Minas Gerais		https://www.linkedin.com/feed/update/urn:li:activity:7188456095282024449/	24/04/2024

4 Evaluation and Monitoring of Communication and Dissemination Activities

To evaluate the impact of the project’s dissemination activities, the EV4EU consortium has established, during proposal preparation, a specific set of metrics/KPIs to monitor its achievements effectively.

The KPIs presented in the proposal-writing phase, have registered some modifications:

- metrics for a blog presented in the proposal were not included. The project opted for investing more on social media channels that have a higher impact nowadays than blogs. Besides LinkedIn and X/Twitter, an Instagram account was created which was not contemplated in the proposal. This account allows to reach more target groups and to share more developments of the projects, especially regarding the Demo activities.
- the number of theses and dissertations referred in section 3.5 was not considered in the initial proposal. This metric tracks BSc, MSc and Doctor in Philosophy (Ph.D.) thesis, developed by students under the EV4EU project, that can be considered as an important KPI and is now included in this updated plan (**Erro! A origem da referência não foi encontrada.**). So far, 9 theses have been completed (Section 3.5).
- the metric to measure the “nº of references to the project in search engines” was revised (Section 2.2) and will now refer to the number of results on Google searches reported as “EV4EU project”. Currently 3790 results are exhibited on Google.
- the metric to assess the “number of interactions” on X/Twitter will now be referred as “engagement rate” which is the analytics metric to monitor the level of interaction and activity generated by a tweet, often measured as a percentage based on the total number of engagements (such as likes, retweets, replies, and clicks) divided by the total number of impressions (the number of times the tweet was displayed to users).

Other than this, no major changes have been made and an update of all KPIs is presented in Table 9.

Table 9 - EV4EU Key Performance Indicators (KPIs)

KPI	Target	Current (M24)	Targeted individuals	Comments
Number of workshops organised	2	6	Increased collaboration with other initiatives/projects/programs for joint research, information exchange, and dissemination. Increased awareness.	Project presentation, poster brochure, leaflets, invitation
Number of attendees to the project workshops	25	114		Project presentation, brochure, leaflets, poster, invitation
Number of demo events	4	1		Demo, Project presentation, brochure, leaflets, poster
Number of attended events	20	42		Brochure, leaflets, poster
Number of events where the project has been presented	5	29		Project presentation, brochure, leaflets, poster
Number of scientific publications	25	23		Conferences, scientific press media

Number of articles in specialized magazines/journals	2	<u>1</u>	Validation of the project's concept, findings, and advantages; Promotion of results to scientific communities; Ideas gathering and knowledge exchange with relevant communities and initiatives.	Industry press media, top conferences.
Liaisons and joint activities with other projects, communities, and initiatives.	20	<u>17</u>	Communication of project news, events & results; Validation of project's concept, findings, and progress; Ideas gathering and knowledge exchange; Increased awareness.	Website links, workshops, joint publications, social media promotion
Number of scientific/technical dissemination material	3	5	Communication of project results and achievements	Flyers, brochure, leaflets, Roll Ups
Website				
Number of unique visitors	2 000	4000	Main online information channel; Communication of project news, events & results; Liaisons with other initiatives, projects, and working groups; Increased awareness. Drive engagement with the project.	
Average duration of visits	2 min	1m02		
Number of page views	5 000	13 000		
Number of results in Google	25	3790		
Social media – X/Twitter				
Number of accumulative followers	200	116	Increased visibility to stakeholders active in social media; Attainment of interest of stakeholders; Direct communication with followers. Drive engagement with the project	
Number of tweets	300	180		
Engagement Rate	> 2	>5		
Social media - LinkedIn				
Number of posts	20	165	Increased project visibility in social channels, and increased visibility to stakeholders active on LinkedIn.	
Number of followers	200	1056		
Social media				
Number of followers	100	124	Increased project visibility in social channels.	
Publications in general media				
Nº of articles in magazines, newspapers, etc.	2	32	Increased project visibility and impact on society.	

Dissemination kit			
Number of press releases	2	1	<p>Communication of project news, events & results; Increased awareness.</p> <p>Unique branding and visual identity of the project; Improves communication of results and information provision during events.</p>
Number of project factsheets/ brochures	2	2	
Number of project presentations	1	27	
Number of project posters	2	3	
Number of project banners (RollUP)	1	3	
Number of eNewsletters	6	3	
Number of videos	1	2	

Table 10 - EV4EU New KPI

Thesis developed under the EV4EU project			
Nº of BSc, MSc and Ph.D. thesis	0	9	Increased project visibility and impact on society.

5 Exploitation Strategy

To evaluate the impact of the project’s dissemination activities, the EV4EU consortium has established, during the proposal preparation, a specific set of metrics to monitor its achievements effectively. The KPIs are presented in Table 11. The KPIs will be monitored throughout the whole project, monthly, to help evaluate project progress and to develop interim and annual reports.

This initial strategy identified activities to ensure the exploitation of the results up to 4 years after the end of the project (article 16 of the Grant Agreement [3]). The project results can be used to develop, create and promote a new process or service, used in further research activities, or even used in standardisation activities.

Table 11 identifies 13 exploitable results across business models and services, technologies, and tools, that have been identified during the proposal and Grant Agreement preparation. This table also identifies the partners involved and the potential users and uses for these results.

Table 11 - EV4EU project's exploitation strategy

	Participation of V2X in markets and services (partner Gen-i)	EDA, BEOF HEDNO, CELJE, GEN-I, PPC	Participation in flexibilities in the markets is the core activity of VPPs. GEN-I will try these services and can be part of the GEN-I portfolio in a few years.
Technologies	V2X Stations (partner SEL)	All	Solutions proposed by SEL and by ABB will be tested in the project. It is expected that the proposed solutions can be offered in the markets until 2024.
	Parking lot Energy Management System (partner DTU)	DTU, ABB, Circle, GEN-I, PPC, UL, SEL, INESC ID, NEW, CITROEN	Parking lot and house/building management solutions will be demonstrated in Denmark and Portugal. Circle and SEL will include these solutions in their portfolio until 2025. Additionally, these solutions are also important to car manufacturers and end-users.
	Houses/Building energy management (partner INESC ID)	DTU, ABB, Circle, GEN-I, PPC, NEW, UL, SEL, INESC ID, CITROEN, DRE	
Tools	Decision Support tools for VPPs (partner GEN-I) and CPOs (partner PPC)	ABB, Circle, GEN-I, PPC, UL, INESC ID, CITROEN	These solutions will be tested in Slovenia and Greece and will be exploited by GEN-I (VPP) and PPC (CPO)
	Open V2X management platform (partner PPC)	ABB, Circle, GEN-I, PPC, DTU, HEDNO, CITROEN	This platform will be exploited by PPC. It is expected that an industrial version of the platform can be available two years after the conclusion of the project
	Integration of V2X management in DMS (partners ELCE; EDA HEDNO; BEOF)	EDA, BEOF HEDNO, ELCE, GEN-I, PPC	V2X management will be integrated with the management system of ELCE and can be exploited in real operations during the project. Similar methodologies can also be used by the other DSOs participating in the project.
	Co-simulation platform for V2X (New Solution)	NEW, UL, SEL, INESC ID, DTU, DRE, PPC, GEN-I	Co-simulation platform will be exploited mainly for research purposes. Nevertheless, real applications can be tested by the different partners for validation purposes
	V2X management strategies: high-level coordination tool (New Solution)	All	These strategies will be used mainly by policymakers. However, the strategies can include strategies at different levels allowing their use in different situations.

6 Conclusions

This deliverable provides an overview and an update of the communication, dissemination, and exploitation activities of the EV4EU project. These are key activities to continue maximising the impact of the project and therefore, it is important to pursue the efforts being done to keep on engaging target audiences, improve project visibility, and foster knowledge transfer.

In this deliverable, are identified the tools and channels already running efficiently and the work that has been done until date. In fact, many KPIs of the grant proposal were already reached and new internal targets are now in place for specific KPIs as identified throughout the deliverable.

Additionally, to keep strengthening the Dissemination and Communication (D&C) work, other promotional materials (3 Roll Ups and EV4EU merchandising for conferences and fairs) are already being planned and an institutional video with an overview of the project Demos is being prepared. Strengthening the EV4EU online presence through the website and social media channels is also one of the objectives.

Regarding events, at least four workshops, one in each demo site, will be organized to explore the results achieved on each demonstrator. Two Special Sessions and the participation in at least six conferences are already in EV4EU 2024 agenda, including CIRED 2024 and Melecon 2024. The project will also keep strengthening liaison initiatives and cluster meetings with relevant stakeholders and peer projects.

The activities reported in this Deliverable will keep supporting the disclosure of all EV4EU initiatives, outcomes, and project impact to stakeholders, fostering engagement and collaboration across diverse audiences throughout the next months.

This deliverable is a live document, and all reported activities are constantly being updated and adapted according to the project needs and developments. Furthermore, this document will also be complemented by a final exploitation plan that will be submitted at M36 (10.6).

References

- [1] “Deliverable D10.1 Plan for the dissemination and exploitation of results including communication activities.” [Online]. Available: <https://ev4eu.eu/wp-content/uploads/2023/05/EV4EU-Deliverable-10.1.pdf>
- [2] “2024 Infinite Dial® study on Social media.” [Online]. Available: <https://www.edisonresearch.com/wp-content/uploads/2024/04/The-Infinite-Dial-2024-Deck.pdf>
- [3] “EU Grants. AGA - Annotated Model Grant Agreement. Eu Funding Programmes 2021-2027, 2021 [online].” [Online]. Available: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf

ANNEX I

An example of the last Newsletter issued is presented bellow in Annex II - Figure 1 - 5.

December 2023 Issue 3

ev4eu
Electric Vehicles Management for Carbon Neutrality in Europe

Vehicle-to-everything (V2X) strategies are essential for electric vehicle (EV) widespread adoption, enabling data exchanges between EVs and energy systems, optimising charging during periods of low energy demand or high renewable energy production, allowing EVs to be energy storage units, facilitating the integration of renewable energies, and providing grid support services. Thus V2X contributes to a more sustainable and resilient economy and society.

The EV4EU project aims to develop and implement user-centric V2X management strategies to boost the use of EVs in Europe for a more sustainable mobility.

During the last 18 months, EV4EU has successfully achieved significant milestones, identifying Business Models and Use Cases to be used in the demonstration sites, developing algorithms to be used by Charging Point Operators, Virtual Power Plants and Distribution System Operators to manage flexibility services provided by V2X, and creating a cost-effective V2X station prototype that will be used in the Portuguese demonstrator. All DEMO activities are in preparation and more developments will follow soon. EV4EU consortium is not only working hard in developing V2X innovative solutions but also actively engaging with other projects, institutions, and stakeholders, to overcome the main barriers and challenges of the future of e-mobility and V2X technology.

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Annex I - Figure 1 – EV4EU Newsletter #3 front page

EV4EU NEWS - Project Progress

The EV4EU project tackles emerging challenges related with the seamless integration of a large number of Electric Vehicles (EVs) into the power system, transport sector and society at large. Currently at M18, the project has achieved significant progress and reached important milestones: it has described the Business Models and Use Cases to be considered in the development of V2X management strategies, has developed several algorithms to be used by DSOs to activate flexibility services provided by V2X and to be tested in the demonstration sites, and created a cost-effective V2X station prototype to be tested in the Portuguese demonstrator, among other important outputs. Below you can find an outline of the project tasks that have been completed during the last six months of the project. More information about the EV4EU can be found on [social](#) and [EV4EU website](#).

Use Cases
Electric Vehicles (EVs) are becoming a more environmentally friendly option to mitigate the high carbon emissions associated with the transport sector. However, the massification of EVs poses several challenges, such as the integration of EVs into power systems. While the growth in the number of EVs will increase energy demand and peak consumption, it will also introduce a new source of flexibility that can be effectively managed by Distribution System Operators (DSOs) and Transmission System Operators (TSOs). As a result of several discussions between partners and taking in consideration the requirements of the demonstration activities and the business relationships among stakeholders, the EV4EU consortium defined seven Business Use Cases (BUCs) to be tested in the EV4EU demonstration sites installed in Denmark, Greece, Portugal and Slovenia (Fig.1). The BUCs are based on the new business models defined in Deliverable 1.6-Business Models centred in the V2X value chain, and aim to capitalize on the flexibility of EVs to offer services to TSOs, DSOs and flexibility operators, aka virtual power plants (VPPs). The V2X Use Cases repository is available in the EV4EU DSHub public community and can be accessed here.

Control Strategies for V2X Integration in Buildings
EV adoption can also be facilitated with an efficient coordination between the energy needs of the home and the charging requirements of EVs. This ensures that the resources are used efficiently, saving costs and contributing to a more sustainable way of life. To achieve this, a decision-making model was developed for a Home Energy Management System (HEMS), capable of integrating V2X technology and Distributed Energy Resources (DER)/Renewable Energy Sources (RES). This model was designed to test 'vehicle-to-home (V2H) smart charging and discharging techniques that benefit both EV using homeowners and utilities. The results from this model suggest that incorporating optimization-based daily planning modules can significantly reduce the energy invoice, when compared to rule-based approaches. This highlights the effectiveness and the potential of these algorithms to increase the financial benefits for all the stakeholders involved. During the next months, this decision-making model will be installed, configured, commissioned, operated and monitored in the residential sites of the Portuguese Demonstrator, in São Miguel, Azores (more about the decision-making model on Deliverable 2.1-Control Strategies for V2X Integration in Buildings, in submission, soon available here).

Control Strategies for V2X Integration in Buildings
In coming years, it is expected to find more and more EV chargers in buildings such as educational facilities, offices, and public administration buildings. In order to achieve efficient, cost-effective, and sustainable energy management in buildings, there is a need for decision-making models and control algorithms capable of integrating V2X strategies into the optimal energy management of buildings with local generation capabilities (e.g. photovoltaic (PV) units). Several strategies were developed under the EV4EU project, and tested on a number of simulation scenarios for the Portuguese demonstration site, in São Miguel, Azores and the Danish demonstration site in Bornholm Island, to test the benefits of smart charging techniques. The simulation results showed that using forecasts and an optimization-based control approach can bring economic benefits and reduce peak power, reducing the required grid connection size for the chargers. Furthermore, the use of sophisticated forecasting techniques might not give extra benefit compared to simpler ones. During next months, these strategies will be implemented and tested in the two EV4EU demonstration sites. (More about the decision-making models to be incorporated into the developments of buildings on Deliverable 2.2-Control Strategies for V2X Integration in Buildings, in submission, soon available here).

Apps and Tools design principles promoting EVs and V2X adoption
User adoption of EVs and V2X solutions are essential for the mass deployment of EVs. Thus it is not only important to assess the user needs and perception of V2X (Deliverable 3.1-EV User Needs and Concerns), but also to design tools and apps able to improve the user experience. Based on current available V2X and Vehicle-to-grid (V2G) apps and software, and insights from DSOs, some important priorities, features and specifications/tools regarding V2G and V2X have been identified. The priorities include mapping the public charging network, simplifying its usability, incorporating V2G incentives, and introducing V2G scheduling capabilities, integrating energy prices, fluctuation and forecasts to educate users and facilitate their decision-making process. Features and tools identified include an energy price forecast tool (the distribution Use of System (DUoS) tariffs that can be used to steer flexible consumption and lead to more efficient network operation compared to their flat rate counterparts. However, these tariffs cannot guarantee the prevention of network constraint violations. To overcome this, flexible capacity contracts can be employed, imposing limits on user consumption (in return for financial compensation). In certain cases, congestion can only be resolved with synergistic application of both flexibility mechanisms, resulting in a reduction in system costs. (More on Deliverable 3.2-Scheduling and Real-Time Operation Strategies to control V2X flexibilities, in submission, soon available here).

EV4EU knowledge transfer
An important aim of the project is to share knowledge and technology with key stakeholders, while stabilising robust IP and knowledge ownership management plans. Furthermore, EV4EU is committed to optimize the value and impact of the project outcomes, ensuring their effective dissemination, utilization and commercialization by relevant stakeholders. To align with the needs and requirements of V2X, the project emphasizes the dissemination of results under standardization bodies, contributing to the development of standards. Current activities regarding innovation strategy, business development and exploitation, and standardization, are ongoing, following the plans outlined in the deliverables: D0.5-Innovation Strategy Plan, D0.5-Exploitation plan and D0.7-Standardization activities plan.

Fig. 1 - EV4EU Business Use Cases considering the different roles of the stakeholders.
From D0.5-V2X Use Case repository

Annex I - Figure 2 – EV4EU Newsletter #3 Pages 2 and 3

	4	4	12	42	
	Countries	Demos	Use Cases	Month duration	

EV4EU PARTICIPATION IN EVENTS

EEM23 | Lappeenranta, FI | Jun 23

EV4EU coordinator participated in the 19th International Conference on the European Energy Market, at LUT University, Lappeenranta, Finland, Jun 6-8, 2023. [Presentation available >>>](#)

XIX Intsikt | Tuzla, BA | Jun 23

EU team participated in the XIX Symposium at University of Tuzla, Bosnia and Herzegovina, presenting the activities of the EV4EU project. [Read more >>>](#)

CIRE2 | Rome, IT | Jun 23

EDP NEW attended the CIRE2 meeting in Rome, Italy, June 12, presenting the poster entitled "V2X integration in self-consumption Energy Management". [Read more >>>](#)

GA Meeting | DTU Riso Campus, DK | Jul 23

The EV4EU GA Meeting #12 was held in DTU Riso Campus, Roskilde, Denmark, Jul 11-12th. CIRCLE Consult conducted a demonstration showcasing distributed charger control, prioritizing each EV user based on their requested energy and time of departure. [Read more >>>](#)

Workshop | Juiz de Fora, BRA | Aug 23

INESC ID Team participated in the Workshop "The Consumers Role in the Energy Transition", organized by Universidade Federal de Juiz de Fora, targeting undergraduates and graduate students. The session on Transportation Electrification was dedicated to the EV4EU project. [Link to event >>>](#)

UPEC 2023 | Dublin, IE | Aug 23

DTU Team participated in the 54th International Universities Power Engineering Conference, UPEC2023, at Technological University of Dublin, Ireland, Aug 23-Sep 01, with a talk about laboratory validation of electric smart charging strategies. [Link to the event >>>](#)

EV4EU PARTICIPATION IN EVENTS

SEST 2023 | Mugla, TR | Sep 23

INESC ID team participated in the 8th International Conference on Smart Energy Systems and Technologies (SEST), 4-6 September, in Mugla, Turkey, presenting "Embedding flexibility into grid planning: reduced models of EV fleet charging capabilities and 'Intelligent Participation of Electric Vehicles in Demand Response Programs'". [Read more >>>](#)

ERK2023 | Portoroz, SL | Sep 23

EU team participated in the 32nd International Electrotechnical and Computer Science Conference (ERK2023), 28-29 September, in Portoroz, Slovenia, presenting the work "Bidirectional electric vehicle charging for flexibility services development". [Link to conference >>>](#)

The Charging of the future | DTU Riso Campus, DK | Sep 23

The Charging of the Future event, organized by DTU at their premises in Riso campus (Roskilde), on 20-21st of September, welcomed different e-mobility projects: ACCO, FUSE, EV4EU and Flow Projects. The EV4EU session covered the aims, current work and plans for the four demonstration sites located in Denmark, Greece, Portugal and Slovenia. [Presentations available here >>>](#)

7th eMob. Symp | Copenhagen, DK | Sep

DTU team participated in 7th e-mobility Power System Integration Symposium, organized by Energinet, at Lyngby campus, Denmark, 25-28 September, presenting "Online optimization of a workplace electric vehicle charging station under grid constraints". [Link to the event >>>](#)

SMART SUMMIT | Azores, PT | Oct 23

EU team participated in the SMART SUMMIT Lages-Unlocking Connections, Igniting Innovation event in Azores, Portugal, 19-20 October, presenting the EV4EU project in their stand. [Link to the event >>>](#)

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<p>Start date: 1 June 2022 End date: 30 November 2025 Progress: 37%</p> <div style="display: grid; grid-template-columns: 1fr 1fr; gap: 10px;"> <div> <p>IEEE ISGT Europe Grenoble, FR Oct 23</p> <p>INESC ID team participated in the IEEE PES ISGT Europe 2023, organized by IEEE Power & Energy Society and University Grenoble Alpes, France, 23-28 October, with an oral presentation on "Computational implementation for creating electric vehicles profiles" and a poster presentation on "Energy resources scheduling in Energy communities". Presentation and poster available >>></p> </div> <div> <p>Special Session IEEE ISGT Europe 2023</p> <p>INESC ID participated in the Special Session "Intelligent applications for energy communities and storage" at IEEE ISGT Europe 2023, presenting the EV4EU project: overview and main innovations. Presentations available >>></p> </div> <div> <p>EIC2 2023 Lisbon, PT Nov 23</p> <p>EDP NEW participated in the Energy Economics International Conference, the 7th IEEE Energy Economics, hosted by IEEL - Instituto Superior de Engenharia de Lisboa, on 2-3 November, presenting "Economic advantages of EV participation in grid services for nonresidential and utilities". Link to event >>></p> </div> <div> <p>EDP R&D Tech Cascais, PT Nov 23</p> <p>EDP NEW organized and participated in the EDP R&D Tech Conference, an event that coincides with its anniversary, on 10th November. EDP NEW presented EV4EU results on "Vehicle-to-home: Powering your home from the driveway". Link to event >>></p> </div> </div> <div style="margin-top: 10px;"> <p>EV4EU WORKSHOPS</p> <p>Current and future Electric Vehicle user experience in Denmark</p> <p>Technical University of Denmark (DTU), Riso Campus, Denmark, June 12th 2023.</p> <p>More information about the workshops on Deliverable EV Users Needs and Concepts, on C220202 and EV4EU websites.</p> </div> <div style="margin-top: 10px;"> <p>Call for Conference Papers</p> <p>Enabling Electric Mobility for Sustainable Grids, Cities and Society</p> <p>Help us to reach a 1000 followers in LinkedIn!</p> <p>Special Session - IEEE MELECON 2024</p> <p>IEEE MELECON2024 - IEEE MELECON2024@ieee-melecon.org</p> <p>Have you checked the EV4EU social channels?</p> <p> </p> </div>	<p>Denmark Greece Portugal Slovenia</p> <h3 style="text-align: center;">EV4EU DEMONSTRATION SITES – PORTUGAL</h3> <p>PORTUGUESE DEMO</p> <p>São Miguel Island, Azores</p> <p>The EV4EU Portuguese demonstration activities will happen in São Miguel Island, the largest island of the Azores archipelago, its autonomous region of the Portuguese Republic located around 1500 Km from Lisbon, the capital.</p> <p>The Portuguese demonstrator is comprised by three distinct pilot sites: (i) households (9 in total, 2 capable of solar PV generation and 2 with bidirectional charging capabilities), where Vehicle-to-Home (V2H) and Vehicle-to-Grid (V2G) control algorithms developed in Deliverable D2, will be tested in real-life environment; (ii) Office building (the Regional Civil Engineering Laboratory - ISEC) where Vehicle-to-Building (V2B) and V2G control algorithms developed in Deliverable C2.2 will be tested in real-life environment; and (iii) the Company campus (headquarters of EDAL where V2B and V2G control algorithms being in development in Task 2A of this project (E2.4: EV Fleet Management in SMEs) will be tested in a real-life environment. In the Company campus parking lot it will be installed the new EV charging station prototype already developed in Deliverable D1.6, that will enable a cost-effective V2X charging in shared spaces and support EV mass deployment.</p> <p>The activities of the Portuguese demonstrator are aimed to test and validate four business models: 1) FSC services for FSC curbside management, 2) shared Charging, 3) EV fleet Management services, and 4) DSO flexibility services-voltage regulation via price signals.</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <p>UPCOMING EVENTS</p> <ul style="list-style-type: none"> EV4EU General Assembly Meeting #18 Athens, GR, 23 -24 January, 2024 EV4EU Greek Stakeholder event Athens, GR, 24 January, 2024 IEEE MELECON 2024 Porto, PT, 25-27 June, 2024 </div> <div> <p>EV4EU has joined the Synergy Club</p> </div> </div> <div style="margin-top: 10px;"> <p>Congratulations to EV4EU Bachelor & Master Students!</p> <ul style="list-style-type: none"> Clustering Applications in E-mobility, by MSc Marcelo Forte (INESC ID) Enterprise Architecture for EV Ecosystems, by MSc Francisco Pavão (INESC ID) Modelling EV Charging Stations Flexibility for Long-Term Distribution Network Planning, by MSc António Jerónimo (INESC ID) Impact of mass deployment of EV energy and power systems, by MSc Pedro Pereira (INESC ID) Optimization of Routes of EV taking into account the Status of Charging Stations, by MSc Gonçalo Fernandes (INESC ID) Development and testing of smart charging strategies for a workplace parking lot, by MSc Kristoffer Pedersen (DTU) Optimal operation of renewable-powered EV charging stations, by MSc Miguel Moreno Yerro (DTU) Vehicle-to-grid services for prosumers, by BSc Carolina Thellefsen & Laura Lomholt (DTU) </div>
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EV4EU – Dissemination and exploitation of results including communication activities.

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PUBLICATIONS

Scientific Articles

- Development of V2X services within the EV4EU project, planning of the Slovenian demonstrator, 14th Conference of the Slovenian Electrical Power Engineers, CICPE 2023; 2023, pp. 10,108-110, 2023, 10.1081/ep.2023.10817
- V2X Integration in self-consumption energy management system, CREED 2023, pp. 10,108-110, 2023, 10.1081/ep.2023.10817
- Intelligent Participation of Electric Vehicles in Demand Response Programs, SEST 2023, pp. 10,1109-10,1137, 2023, 10.1109/sest.2023.10277565
- Modeling demand response of Charge Point Operators to consider flexibility in grid planning, SEST 2023, pp. 10,1109/10.1109/sest.2023.10277567
- Bidirectional electric vehicle charging for flexibility services development, ERK 2023; 2023, pp. 10,106-107, 2023, 10.1061/er.2023.101580
- Laboratory Validation of Electric Vehicle Smart Charge Strategies, 2023

Deliverables

- D1.3 – Regulatory opportunities and barriers for V2X deployment in Europe
- D1.4 – Business Models Centred in the V2X value chain
- D3.1 – “My User” Needs and Concerns – Preliminary Report
- D4.1 – Distribution Network Planning Strategies considering V2X Flexibilities
- D5.1 – Standardization gap analysis for new V2X related Business Models
- D5.3 – High level design of Open V2X Management Function (OV2X-MF)
- D5.4 – Cyber-security and Privacy analysis for V2X services
- D10.1 – Innovation Strategy
- D10.2 – Exploitation Plan
- D10.4 – Standardization activities plan

EV4EU Consortium - Participants

EV4EU Consortium - Associated Partners

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