



D8.3

Plan for the Dissemination of ECF4CLIM results

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WHO WE ARE

The ECF consortium consists of ten partners. The project is coordinated by Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas-CIEMAT.

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Universidad de Sevilla USE	ES	
University of Jyväskylä JYU	FI	
Universitat Autònoma de Barcelona UAB	ES	
Meda Research Ltd MedaResearch	RO	
Instituto de Soldadura e Qualidade ISQ	PT	
Trebag Szellemi Tulajdon Es Projektmenedzser Korlatolt Felelossegu Tarsasag TREBAG	HU	
Smartwatt Energy Sercuces SA Smartwatt	PT	
Que Technologies Kefalaiouchiki Etaireia QUE	GR	



ABOUT THE PROJECT

Through a multidisciplinary, transdisciplinary and participatory process, ECF4CLIM develops, tests and validates a European Competence Framework (ECF) for transformational change, which will empower the educational community to take action against climate change and towards sustainable development.

Applying a novel hybrid participatory approach, rooted in participatory action research and citizen science, ECF4CLIM co-designs the ECF in selected schools and universities, by: 1) elaborating an initial ECF, supported by crowdsourcing of ideas and analysis of existing ECFs; 2) establishing the baseline of individual and collective competences, as well as environmental performance indicators; 3) implementing practical, replicable and context adapted technical, behavioural, and organisational interventions that foster the acquisition of competences; 4) evaluating the ability of the interventions to strengthen sustainability competences and environmental performance; and 5) validating the ECF.

The proposed ECF is unique in that it encompasses the interacting STEM (Science, Technology, Engineering, and Mathematics) --related, digital and social competences, and systematically explores individual, organisational and institutional factors that enable or constrain the desired change. The novel hybrid participatory approach provides the broad educational community with: an ECF adaptable to a range of settings; new ways of collaboration between public, private and third-sector bodies; and innovative organisational models of engagement and action for sustainability (Sustainability Competence Teams and Committees).

To encourage learning-by-doing, several novel tools will be co-designed with and made available to citizens, including a digital platform for crowdsourcing, IoT solutions for real-time monitoring of selected parameters, and a digital learning space. Participation of various SMEs in the consortium maximises the broad adoption and applicability of the ECF for the required transformational change towards sustainability.

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1 EXECUTIVE SUMMARY

This document is the Deliverable 8.3, **Plan for the Dissemination of ECF4CLIM Results**, project funded by the European Commission under the **H2020- European Green Deal Call**, under the grant agreement no. **101036505**.

In accordance with the H2020 Online Manual [1] “dissemination means sharing research results with potential users - peers in the research field, industry, other commercial players and policymakers”. The general objective of the sharing of the research results with the rest of the scientific community is to contribute to the general progress of the science. The communication of the project was approached in the Communication Plan [2]. The exploitation of the results, defined as the “the use of results for commercial purposes or in public policymaking” [1] is presented in a separate deliverable [3].

The main objective of the deliverable is to produce the Plan for the Dissemination of ECF4CLIM Results (PDR) in order to ensure an effective dissemination of the ECF4CLIM results to the relevant stakeholders. The PDR is a practical tool to be used by all partners to efficiently participate in the dissemination of the valuable results of the ECF4CLIM project. It considers both common activities (involving all partners or some of them) and dissemination activities initiated and developed by an individual partner organization. All of them are considered in PDR if there is a relevant contribution to the achievement of the global objectives of the dissemination.

The deliverable introduces a separate sections for the methodology explaining the main methods and tools planned to be used for the dissemination process, description of the key performance indicators (KPIs) established for different actions of the dissemination process, identification of the communication channels, description of the target audiences. The planned actions are presented separately in the Action Plan. A section is devoted to the procedures, and another one to the monitoring and evaluation.

2. OBJECTIVES

The objective of the dissemination plan is **to identify and organize the activities to be performed in order to reach a maximum influence/impact of the project and to prepare the exploitation activities**, including the identification of the appropriate routes of the project results.

It should be noted, **the dissemination** means **sharing of the research results with potential users**, therefore a **transfer of the knowledge and results to enable the use of them**. The process is contributing to the “progress of science in general” [1].

The **communication process**, presented in the Communication Plan [2], is oriented to show to the society and to the stakeholders the impact and benefits of the project, whereas the **exploitation objective**, described in [3], is devoted to an effectively use of the project’s results, e.g. for commercial purposes or in public policymaking, turning them into concrete values.

Both the communication and the dissemination processes will pave the way for an effective exploitation of the project results.

The **secondary objectives** of the dissemination plan are the following:

- to identify the appropriate target groups and dissemination channels for an effective dissemination of the project’s results, by using a broad spectrum of dissemination activities,
- to define the implementation approach for the dissemination activities and to provide an indicative timetable,
- to disseminate the fundamental knowledge, approaches, methods and tools developed in the project and to assist the partners of the project for a correct implementation of the dissemination actions,
- to ensure an efficient coordination and cooperation within the partnership aiming the dissemination process,
- to create the conditions for an early involvement of a large number of stakeholders in the discussions and in the co-design process,
- to define the appropriate KPIs, aimed to measure and to demonstrate the effectiveness and efficiency of the dissemination activities.

3. METHODOLOGY

The Dissemination Plan is a practical tool to be used by all partners to efficiently develop their dissemination activities and to contribute to the global objectives of the project. It has been made taking into account the guidelines and recommendation of the EC [1, 4].

To obtain the effectiveness of the dissemination, the process has to be pre-planned, coordinated and developed in a strategic manner to identify effective solutions, and to implement them targeting the audiences.

The Dissemination Plan defines all the measures and deadlines for the different dissemination actions. All of them were established taking into consideration the whole planning of the project and the purpose of obtaining a relevant impact. They are aligned with the major milestones in order to maximize the impacts and the implementation will be in strong interaction with all the other work packages.

The Dissemination Plan will be annually updated. The partners will be requested to send their feedback and information about the next planned activities and also about the results of the activities carried out. Some more detailed information on this process is included in a separate section dedicated to the “Monitoring”.

The exploitation of the results is treated separately, the Plan for the Exploitation of ECF4CLIM Results and for Stimulating Synergies will be developed in deliverable D8.4.

The main methods and tools to achieve the dissemination process in the ECF4CLIM project are:

- (1) Publishing academic articles,
- (2) Presentation of papers at international and national scientific events, conferences
- (3) Organizing ECF workshops,
- (4) Organizing the Final Conference of ECF4CLIM project,
- (5) Organizing webinars,
- (6) Organizing awards of the project,
- (7) Organizing Low Carbon Committee,
- (8) Dissemination of the main results by using the website channel,
- (9) Dissemination of created tools by the digital platform,
- (10) Dissemination of results by the social media pages (LinkedIn, YouTube).

The **academic articles** will be published in **peer-reviewed international journals** with high impact factor and using both gold and green open access. For the majority of articles, "gold" access in an open access peer reviewed journal would be procured. This would be combined with a free repository ("green" access) of all scientific articles arising from the project on the ECF4CLIM website.

The publication of academic articles is in the responsibility of each partner. A supervision will be ensured by the work package leaders and by the Steering Committee according with the recommendations and procedures described in the Plan for the Dissemination. The publication will be achieved in short time after the finalization of the activities. All the important results and analysis will be oriented to peer-reviewed international journals with high impact factor and using both gold and green open access.

The dissemination activities will be based mainly on the valuable results obtained in the tasks of WP3, WP4, WP5, WP6, and WP7. The following tasks are expected to produce the most relevant results to be disseminated:

- T3.1 (Crowdsourcing),
- T3.3 (The development of an initial EFC),
- T3.4 (Expert analysis of the initial ECF),
- T3.5 (Internal and external validation of the ECF),
- T4.1 (Collective Competences for Sustainability),
- T4.2 (Individual Competences for Sustainability),
- T4.4 (Co-design of measures to promote competences, behaviors and social practices towards climate action and sustainable development),
- T5.1 (Behavioral Interventions),
- T5.2 (Structural/Environmental Interventions),
- T5.3 (Joint implementation: Participatory, reflective, and deliberative process to support the interventions),
- T6.1 (Evaluation of the collective competences: policies, measures & practices for climate action and sustainability),
- T6.2 (Evaluation of the individual competences),
- T6.4 (Participatory evaluation of the interventions),
- T6.5 (Proposals and recommendations on key components and requirements for the ECF and ways of improving social practices in education to promote climate action and sustainable development),
- T7.2 (Crowdsourcing collaborative space),
- T7.3 (Simulation tools),

- T7.4 (IoT Ecosystem for Multipurpose Monitoring),
- T7.5 (Learning Space / Educational Resources for Responsible Citizenship in Climate Change Prevention and Sustainable Development),
- T7.6 (Implementation, Test & Validation of the digital platform).

Generally, the dissemination will be performed immediately the finalization of each task, but in case of relevant partial results a discussion will be initiated at the level of the task. If considered appropriate the partial results will be published with respecting the rules and procedures for the dissemination and exploitation of the project's results (presented in the section Procedures of this deliverable, where the initiation of the dissemination process for a certain set of results, discussions at the level of task, WP and ECF4CLIM project, selection of the most appropriate journal, approvals, etc. are discussed in detail).

The publishing of academic articles and the **presentation of papers in different international and national scientific events** will follow similar procedures. The participation will be achieved to the most relevant events in order to optimize the use of the resources and obtain a high impact for the dissemination of the project and of the results. Annually, during the project meeting, a list of the relevant events for the next year will be agreed based on the discussion and analysis. The presentations at international and national scientific events are in the responsibility of each partner following the rules from the Plan for the Dissemination and recommendations produced annually after the project meeting.

The main events, such as the ECF workshops and the Final Conference, will be open to a large audience and invitations will be adequately disseminated.

The **ECF workshops** will target a broad participation of the potential users of the ECF. First ECF Workshop (the Outline of the ECF) is planned for September 2022, the second one (The results and outputs, including the digital platform performances) is planned for April 2025.

The ECF Workshops will be organized by JYU as coordinator of the WP3 (Development of ECF for Climate Change and Sustainable Development). Meda Research will support JYU in the planning of the workshops (format, agenda) together with CIEMAT as project's coordinator. All partners will be involved in these actions to present their results and outputs from the implementation of the ECF within the demonstration sites and also for the construction and functioning of the digital platform.

The first announcement of the event will be prepared and distributed via web-site, digital platform, and e-mail at least one month before. The second will be distributed at least 2 weeks before the event, and will include the detailed Agenda. JYU will produce the minutes and conclusions of the workshops. A wider participation is targeted beyond the project partners and educational communities from the intervention sites.

The **ECF4CLIM Final Conference** is in the responsibility of Meda Research and CIEMAT. It will be organized in Spring 2025 in agreement with the evolution of the project and other concurrent events. All partners will participate and involved in the presentation of the most relevant results of the activities of the project. CIEMAT, IST, JYU, and Meda Research as national coordinator for the activities on the demonstration sites will be responsible with the inviting the school communities to participate in the final conference. All the partners will invite representatives of the target groups, policymakers and implementers of the climate actions. To allow the participation of a maximum number of interested groups and individuals, the conference will be organized as a combined on-line and face-to-face event.

The first announcement of the Final Conference will be distributed by the project channels (web-site, digital platform), by e-mail, and by direct interactions with the educational communities, at least two months before the event. The second announcement will include a detailed Agenda, and will be distributed at least one month before the event. Both are in the responsibility of CIEMAT and Meda Research.

Two **webinars** will be organized to offer opportunities to the students to present and share the ECF testing and validation activities performed in their schools with the other schools participating in the project, as well as with other external audiences.

The webinars will be organized by Meda Research and CIEMAT. First webinar is planned for M34 (July 2024), the second one for M38 (November 2024). Since the events will be centered on the exchange of experience and practices among the schools, the national coordinators for the demonstration sites (CIEMAT, IST, JYU, and Meda Research) will play a central role.

The webinars will be announced by the project channels (web-site, digital platform), by e-mail, and by direct interactions with the educational communities, at least one month before each event. The announcement will include the tentative agenda and the objectives.

An **Award for the Best Implementation Activity** is planned to be integrated in the Final Conference event (spring 2025) and will be in the responsibility of Meda Research and CIEMAT. The national team coordinators for the intervention sites will contribute to the format and to the organizing of the event. A set of criteria will be developed at least 1 year before and disseminated by the project channels (web-site, digital platform) and discussed with the educational communities.

The dissemination activity will include the support of the **Low Carbon Committees** consisting of the production of appropriate materials. This activity is in responsibility of Meda Research and CIEMAT. *Specific timeline is include in the Action Plan.*

The **dissemination of the main results by using the website channel** is planned offer to the audience the opportunity to consult the deliverables of the project and other important results. The majority of the deliverables have a public status; therefore, they

will be disseminated in the final form send to the Commission and immediately after the approval by the project management. A dedicated webpage was created to host the main results and disseminate them with the following sub-pages: (1) <https://www.ecf4clim.net/deliverables>, (2) <https://www.ecf4clim.net/dissemination-materials>.

The **tools** created in the project will be disseminated by the Digital Platform channel. The audience will have access both to the presentation/description of the tools and their effective use. The access to the digital platform is also ensured by a dedicated page of the website (<https://www.ecf4clim.net/digital-platform>) presenting the platform and offering the access.

The **dissemination of results by the social media pages** is planned to reach different segment of the target audiences. Dedicated LinkedIn page (<https://www.linkedin.com/company/ecf4clim>) and YouTube page (https://www.youtube.com/channel/UCYCEI1uPSPKZvBmGX_tBvcg) were created for this purpose. The Facebook page (<https://www.facebook.com/ECF4CLIM/>) is planned to be used mainly for the communication purpose. The LinkedIn page will create the opportunity to reach a broad spectrum of professional interested in education for climate actions. The YouTube page will offer access to the video materials produced by the project.

The dissemination activities, targeting wider audiences, will take place through the publication and dissemination of key deliverables and project factsheets on the website, and participation in networks and initiatives organized by third parties.

A special note considering the impact of **pandemic situation** (COVID-19) on the dissemination activities. It is possible this global health crisis will continue and long-duration constraints in different countries may affect the organization of events in the classical format, such as the conferences, webinars, and workshops. Therefore, a protective approach should be adopted as Plan B. Dissemination approaches, methods and tools, especially online ones, have in such context a great value. The project's website will contain dynamic information that will be updated regularly. The social media pages will play a central role to keep a high interest on the evolution of the project and on its outcomes. The regular newsletters will allow to stay in touch with different stakeholders. The face-to-face events may be changed into online or hybrid events. Essential meetings should, whenever possible, be held via videoconferencing instead of postponing them completely. Appropriate measures will be agreed at the level of project's management taking into consideration the specific evolution in the EU and participating countries.

4. TARGET GROUPS

Unlike the communication process (targeting the society and the stakeholders [2]) the dissemination is directly oriented to the potential users of the developed tools, approaches, methods, and knowledge. The process is contributing to the progress of science in general [1].

Considering the peculiarities of the ECF4CLIM project the following target groups are identified:

- (1) **Scientific community** with the following sub-groups:
 - (1.1) **education sciences communities**, interested in knowledge transfer and implementing new education for climate change,
 - (1.2) **climate-change scientists**, interested in finding paths for intervention at the level of the society,
 - (1.3) **advisory board**.
- (2) National, regional, and European **authorities in education**,
- (3) National, regional, and European **authorities in environmental protection, climate actions**, etc.
- (4) **Educational communities** from the EU member states, interested to contribute to climate actions,
- (5) **Different NGOs and organizations** acting in the field of education and climate actions,
- (6) **Other policy-makers** at regional, national, and European level,
- (7) **Local communities** interested in implementing climate actions,
- (8) General **public** interested in **citizen science** and learning on the climate actions.

The dissemination process is broad oriented to these target groups with a special focus on scientific communities, educational communities, authorities and policy-makers. The engagement of the stakeholders is crucial to reach a high impact of the project, consequently adequate measures are planned for the dissemination of the results in order to prepare different target groups for the implementing in their current practices.

5. KEY PERFORMANCE INDICATORS

A set of key performance indicators (KPIs) were established for different actions of the communication and dissemination process, together with the measures planned to maximize the impact, and proposed targets. They are presented in Table 5.1.

Table 5.1. Key performance indicators and measures to maximize impact

Action	Measures to maximize the impact	KPI	Target
Workshops	Inform and engage the community; present key findings; gather intelligence and feedback from stakeholders	No of participants	100
		No of workshops	2
Webinars	Knowledge transfer	No of participants	100
		No of webinars	2
Final Conference	Ensure a good visibility of the main results for the targeted stakeholders	No of contributions	20
		No of participants	100
Participation in external events	Ensure good visibility in the relevant community	No of contributions to 3rd party events	20
Publications	conference proceedings, peer-reviewed publications	No of publications	30
Deliverables	project deliverables	No of accessing	100
		No of public deliverables	44
Tools	Tools developed by the project and hosted on the digital platform	No of accessing	200

The following table presents the estimated planned number of persons to be reached by ECF4CLIM dissemination activities. These numbers reflect per year the number of new persons to be reached per category – scientific community, authorities in education, authorities in environmental protection/climate actions, educational communities, etc.

Table 5.2. Estimated number of persons to be reached by ECF4CLIM dissemination process, per category and year

Target group	Year 1	Year 2	Year 3	Year 4
Scientific community	30	30	40	50
Authorities in education	15	30	40	50
Authorities in environmental protection/climate actions	10	15	30	40
Educational communities	300	250	250	250
NGOs and other organizations	15	20	20	20
Local communities	150	200	200	200
General public	50	50	50	50

5. WHAT TO DISSEMINATE

Dissemination is an act of spreading information, knowledge, and opinions to the targeted audiences. The ultimate purpose of dissemination is to create the appropriate conditions for the target users to take up or to adopt an innovation, information, or resources [5].

This section describes the main outcomes of ECF4CLIM project to be disseminated. The aim of ECF4CLIM project is to co-design and test a European Competence Framework for climate change and sustainable development that is transdisciplinary and will enable and empower the citizens to act towards the necessary transition towards sustainability. Towards this goal, a broad engagement of students, teachers, parents and the wider educational community is planned, contributing to climate action and fostering transformational change towards sustainable development in the spirit of 'citizen science'.

The project will gather these direct participants in different co-designing processes. A set of tools (such as the competence framework, applications, digital platform) will be developed stimulating changes in the personal and collective behaviors, habits, routines, and social norms of the various actor groups with the aim to foster sustainable development, in particular to produce an effective and large participation in the climate actions.

Without exhausting the list, the dissemination process will be based on some outcomes of the project, such as:

- (1) The European Competence Framework (ECF) for climate change and sustainable development (knowledge, skills, and attitudes needed in the society),
- (2) Results from testing of the ECF in the context of the demonstration sites,
- (3) Results reflecting the effectiveness of the ECF in a variety of contextually adapted interventions designed to enhance environmental, individual, and collective competences,
- (4) Results from the engaging process of the educational community in the evaluation of the ECF, addressing the individual, organisational and institutional factors,
- (5) Results from the empowering process to trigger and sustain transformational change towards a more sustainable future,
- (6) Methodologies used to build ECF, co-design process, the testing of the ECF, the measurement of the effectiveness, the engagement and empowering the communities and individuals,
- (7) Tools developed to be used by individuals and communities,
- (8) Results from the baseline assessment for the individual and collective competences, and for the environmental performance of the pilot schools and universities,
- (9) Results of interventions on the demonstration sites as examples of good practices and methodological support for the implementation in similar contexts,
- (10) Crowdsourcing results and the effectiveness of the co-design,
- (11) Results on the competences' gaining (assessing environmental impacts, prioritization of climate actions, evaluation of the policy performance, examining improvement in the ECF competences, the monitoring progress),
- (12) Results from the evaluation of the implementation process: changes in the patterns, practices, routines, social norms, the success achieved with the structural, behavioural, and joint interventions
- (13) Proposals and recommendations on key components and requirements for the ECF, and ways of improving social practices in education to promote competences in climate action and sustainable development.

- (14) Development of the digital platform (concept, architecture, interfaces and functional specifications, tools, methods, participation)
- (15) Results from the use of the crowdsourcing space and of the simulation tools,
- (16) Results from the use of the Internet of Things (IoT) solutions and data for real-time monitoring of the selected parameters,
- (17) Results from the use of the learning space designed to increase the awareness of the citizens and their capacity for climate and sustainability actions.

7. DISSEMINATION CHANNELS

During the last two decades, the dissemination of the research was significantly disrupted by the internet and digitally networked technologies. Most of the scientific journals move online, many of the scholarly books are both in online and in printed format. Webinars becomes more popular due to the important advantages of cost reduction and easy access. In the last two years, the pandemics forced the movement of the conferences and workshops from face-to-face to the online format, sometimes to a hybrid format.

The digital dissemination is nowadays available in multiple forms such as websites, blogs, wikis, social media pages, digital version of the journals, databases for papers, etc. In the last years there is a tendency of the researchers to keep open notebooks [6] to make their research findings public in real time. However, the classical methods such as the face-to-face events cannot be neglected due to their good characteristics in terms of knowledge dissemination, creating real links among researchers and teams, more open dialogue, etc.

Due to the pandemics a limitation of the face-to-face events may appear, and consequently the movement of the most dissemination activities in online channels will occur.

On the other hand, there is a tendency to act more efficiently to create a greater public understanding of science and research. Since the '80s there are continuous efforts to engage the non-research audiences in the dissemination processes. Such efforts include publication in popular science magazines, shows on televisions, podcasts on radio or internet. In terms of publishing the scientific results the tendency is to create more opportunities for wider dissemination and public engagement by encouraging the open science [7]. Therefore, a reshaping of the dissemination process is needed due to the globalization of research, inclusion of new stakeholders in the target audiences, accessibility of the communication and dissemination means.

In the ECF4CLIM project the dissemination activities will use the following channels:

- (1) **Webinars** will be based on **on-line resources** and will bring together educational communities and other external audiences. The main objective is to disseminate results obtained in the ECF testing and validation activities, to discuss and extract relevant feedback from the different experiences of the involved schools.
- (2) **Workshops** will be organized in classical format (**face to face**) or **hybrid form** (if the pandemics will introduce such measures) and will be dedicated to disseminate the Outline of the ECF, the results and outputs and digital platform performances. The considered participation is a broader one beyond the project partners and educational communities from the intervention sites.
- (3) **The Final Conference** will be organized in a **combined on-line and face-to-face event classical format** (independently on the pandemics situation). The on-line channel is necessary to allow a broad dissemination especially for the members of the educational communities interested in the results of the project. The final conference will disseminate the main outcomes of the project to a broad audience (academics, educational communities, authorities, policy-makers, NGOs, public, implementers of climate actions, etc.). The final conference will be based on plenary sessions and, if necessary, on poster sessions. The poster session will be also available on-line by posting the papers on the website in a dedicated section of the *Events* page.
- (4) **The website** is used both for communication and dissemination. Two sub-pages (*Deliverables*, and *Dissemination materials*) of the page Results are dedicated to the main dissemination activities through the website.
- (5) **The social-media** channels used for the dissemination process are LinkedIn (targeting the professionals interested in education for climate actions) and YouTube (targeting a larger audience including the general public). The Facebook channel will be used mainly for the communication actions, but sometimes it will announce different dissemination activities by posting announcement and redirecting the audience to the web site, digital platform, or LinkedIn, YouTube channels.
- (6) **The Digital platform** channel is devoted to allow the on-line access of a large spectrum of users to the main tools produced by the project allowing a direct dissemination of some of the main outcomes.
- (7) **Scientific journals** channel consists of a set of peer-reviewed international journals with high impact factor and using open access. The Steering Committee will approve a list of recommended scientific journals for the publication of ECF4CLIM results. List will be annually updated. The **preliminary list**, existing at the moment of release of the present deliverable includes the following journals:

Energy Policy, Sustainable development, The Journal of Sustainability Education, International Journal of Sustainability in Higher Education, Environmental Politics, Energy Research & Social Science, Global Environmental Change, Journal of Integrative Environmental Sciences, Sustainable Development, Evaluation and Policy-Making.

- (8) Conferences, workshops and other scientific meetings** channel will be used to reach a large audience, especially from scientific community and educational communities.
- (9) Direct interaction with the educational communities** by organizing, in common, climate actions and use the approaches, methods and tools developed in the frame of ECF4CLIM project. In such a way, the dissemination process will perform a translation of the research outcomes into the practice with possible impact on the practices and policies. On the other hand, the use of this channel is very important to allow the co-design process and to extract valuable ideas and approaches from the stakeholders and to disseminate them by all the other channels of the project.

The digital platform may be also accessed from the website of the project and corresponding. Also, links to the social-media channels are present both on the website and the digital platform landing pages.

8. ACTION PLAN

An Action Plan of the ECF4CLIM project is presented in Table 8.1 consisting of the all activities devoted to the dissemination during the implementation of the project. It will be updated periodically in accordance with the progress of the projects, and possible new appeared needs.

Many of the activities and actions included in the Action Plan were already defined in the Grant Agreement and therefore the allocation of responsibilities among partners and the respective budget are already partially defined.

9. PROCEDURES

All the partners are invited to understand the role of the dissemination procedures and to apply them in the current activities of ECF4CLIM project. The dissemination process will respect the following procedural steps and recommendations:

- (1) The dissemination activities will respect the Dissemination Plan in terms of initiation, deadlines, coordination and responsibilities.
- (2) The project is promoting open and transparent research to maximise the impact of the invested public resources, by knowledge transfer, by benefits of research, encouraging the collaboration and improving the community engagement.
- (3) Any researcher involved in the ECF4CLIM project may initiate the publishing of certain results following the present rules of the dissemination process:
 - (i) a discussion at the level of task and work package, originating the results, will be launched to properly identify all the contributors and any IPR elements,
 - (ii) the initiative will be communicated to the WP8 leader in order to be included in the Dissemination Plan and monitored, as well as to the project Coordinator,
 - (iii) the selected journal or event will be agreed at the level of project coordination in order to maximize the impact, together with the open access form,
 - (iv) the agreement of all partners contributing to the results will be obtained on the final form of the paper or presentation.
- (4) The authors of the paper/presentation are responsible for the entire content including:
 - (i) accurately report on methodology, data and findings,
 - (ii) present conclusions fully justified by the results and acknowledge any finding limitations appropriately,
 - (iii) disclose any potential, perceived or actual conflicts of interest,
 - (iv) acknowledge funding bodies, partner institutions, and collaborators.
- (5) Any publication/dissemination material (in any form, including electronic) will acknowledge the [EU-H2020-Green Deal](#), [H2020-LC-GD-2020-3](#) for the provided financial support: “the research was performed in ECF4CLIM project funded by European Union’s Horizon 2020 research and innovation programme under grant agreement No. 101036505”. The EU emblem (EU flag) must be displayed together with the text referring the programme and the number of the grant agreement. When displayed together with another logo, the EU emblem must have appropriate prominence.

- (6) Any dissemination of results (except scientific papers) must indicate that those only reflect the author's view, thus excluding the European Commission responsibility of the information it contains. For example: *The content reflects only the author's view. The Commission is not responsible for any use that may be made of the information that it contains.* A legal notice is added to project material when deemed relevant. Example: *This [document, presentation...] is intended for information about ECF4CLIM project only. ECF4CLIM consortium makes no warranties, express, implied or statutory as to the information provided in this material. Neither the European Commission nor ECF4CLIM Consortium are liable for any use that may be made of the information that it contains. All rights reserved. Copyright: ECF4CLIM Project.*
- (7) A link to the publication will be uploaded on the ECF4CLIM web-site, immediately after the availability of the online access, the link will be inserted on the page *Results*, sub-page *Dissemination materials*.
- (8) All deliverables marked as public will be available to be downloaded on the ECF4CLIM website.
- (9) Dissemination of results from deliverables classified as restricted needs to be approved by the Consortium or the involved partners, before any release can take place. A copy of the paper/presentation will be stored in the repository available on the page *Restricted Area*.
- (10) In the dissemination process the approved materials, approaches, methods, and tools will be used, according with the Dissemination Plan and decisions of the management structures of the project,
- (11) The initiation of a new dissemination activity is possible after the informing of the consortium; a planning of the dissemination in terms of methods, tools, resource will be discussed in the frame of WP8, and, if it necessary in the Steering Committee; a positive decision is needed to launch the activity.
- (12) The progress of the dissemination activities will be regularly reported by the responsible of the dissemination activity and by the involved partners to the WP8.
- (13) The modification (in terms of targeted audiences, approaches and means) or the re-planning of any dissemination activity is possible, but only after a detailed analysis in the WP8 and approval by the Steering Committee.

10. MONITORING AND EVALUATION

The main objective of the monitoring and evaluation is to ensure a high-quality execution of the dissemination plan.

Even the project has already established an overall evaluation strategy to ensure the quality of all the activities and results, however a separate monitoring focused on dissemination activities is vital since the impact of those activities significantly contribute to the successful implementation characterized by a fruitful transfer of the knowledge to the scientific and educational communities, and also to the other stakeholders.

The quality of the dissemination activities will be assessed periodically by the Steering Committee. Every year an internal report will be delivered by the communication and dissemination team (composed by nominated persons by each partner participating in WP8) describing: all activities performed in the previous period; difficulties and challenges found; activities forecasted for the following year and if needed, corrective measures to be implemented.

Project partners shall report all performed dissemination activities to WP8 leader, no later than 30 days after the activity takes place. This reporting procedure shall include information regarding the performed dissemination activities, including, in case of events, the received feedback obtained from the participants. Feedback will be registered by the consortium partners to help the evaluation of the quality of the project outcomes, and also, to reveal or confirm stakeholders needs, visions and understandings, to measure the impact and indicate whenever a change need to be made.

It is important that the evaluation will be carried out on a continuous basis to ensure:

- an immediate analysis of the impact of the dissemination activities to introduce corrective measures, if necessary, also to redefine the future dissemination activities in agreement with the feedback from the previous activities, with the evolution of the project, and considering the planned objectives, target audiences, and available resources,
- a detailed planning and preparation of the activities and the use of performant channels, methods and tools.

Monitoring can be broken down into sub-sections:

- performance measurement,
- impact,
- reporting,
- monitoring and assessment.

10.1 Performance Measurement

The effectivity of the Dissemination Plan will be measured according to the following indicators:

- number of published scientific papers in peer reviewed journal, grouped in categories: (1) open “gold” access, (2) open "green" access, (3) non-open access (source: dissemination reporting from partners),
- impact factor of each publication (source: dissemination reporting from partners),
- number of accumulated citations, total and per article, accumulated at the end of project, (source: analysis based on annual dissemination reporting),
- number of papers presented in international events, (source: dissemination reporting from partners), (source: dissemination reporting from partners),
- number of persons attending the presentation, and quality revealed by the feedback from the events,
- number of visitors accessing the *Results* page of the project website, (source: web analytics tools),
- number of followers of the *LinkedIn* social media page, (source: social media analytics tools),
- number of participants in the planned events of the ECF4CLIM project (workshops, webinars, final conference), (source: event’s minutes produced by the organisers),
- number of accessing of the tools developed and stored on the digital platform (source: digital platform analytics tools)
- number of references mentioning the project in other scientific papers or presentation in different events, (source: dissemination reporting from partners),

10.2 Impact

The impact may be used to measure and assess the dissemination activities in terms of their relevance and quality. The assessment can help the consortium to understand the level of success in reaching the target audiences, to produce a relevant impact, and also to ensure the sustainability of the project’s results.

Impact is often measured through indicators; both quantitative and qualitative should be considered for the activity/action. In Table 10.2.1 a set of indicators and tentative performance targets are presented.

Table 10.2.1 Indicators for the impact of the dissemination and tentative performance targets

Indicator	October 2022	October 2023	October 2024	October 2025	Source and methodology
Number of published scientific papers in peer reviewed journal	1	2	4	6	Report on the dissemination activities
Number of papers presented in international events	1	6	8	9	Report on the dissemination activities
Total number of citations	-	-	-	20	Citation analytics
Number of persons attending the presentations (international events)	-	100	120	150	Report on the dissemination activities
Number of papers presented in national events	4	8	8	8	Report on the dissemination activities
Number of persons attending the presentations (national events)	50	100	100	150	Report on the dissemination activities
Number of visitors accessing the <i>Results</i> page of the project website	100	200	300	400	Web analytics tools
Accumulated number of followers on ECF4CLIM LinkedIn	30	50	80	100	LinkedIn analytics tools
Number of participants in the planned events of	-	75	75	250	Report on the dissemination activities

the ECF4CLIM project					
Number of accessing of the tools developed and stored on the digital platform	50	100	200	350	web analytics tools
Number of references to the project presented in other scientific papers or presentation in different events	5	15	25	40	Report on the dissemination activities

10.3 Reporting

The objective of the monitoring activity is to assess the properly implementation of the action plan, on time and at the planned quality level for the actions. Also, the monitoring activity will assess (both in quantitative and qualitative terms) to what extent each activity produce the planned expected impacts on the target audiences. The conclusions from these reporting will be used for the annual update of the Plan for the Dissemination.

To facilitate an accurate monitoring and assessment of the dissemination activities, and to understand the impact of the actions carried out, all partners will register the dissemination activities that they implement. In this sense, a devoted section space in the private area of the website will be available to report every dissemination activity made by the consortium members. Appropriate form will be available on the website to be used by the partners. The responsible for the dissemination nominated by each partner in the ECF4CLIM project will fill out the form.

Some simple and clear rules will be respected for the dissemination reporting:

- all partners will take into account the dissemination procedures established in the Plan for the Dissemination,
- all partners should register the activities in the dissemination reporting form available in the private area of the website,
- all partners will add, after receiving, the new feedback appeared after the sending of the reporting form,
- all partners should save evidences of the activities conducted.

11. REFERENCES

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ANNEX 1. ABBREVIATIONS & ACRONYMS

CINEA	European Climate Infrastructure and Environment Executive Agency
EC	European Commission
ECF	European Competence Framework
EU	European Union
IoT	Internet of Things
IPR	Intellectual Property Rights
KPIs	Key Performance Indicators
NGOs	Non-Governmental Organizations
PDR	Plan for Dissemination of ECF4CLIM Results
SMEs	Small and Medium size Enterprises
STEM	Science, Technology, Engineering, and Mathematics