



**TRI-HP
PROJECT**

Trigeneration systems based on
heat pumps with natural refrigerants
and multiple renewable sources

Communication and Dissemination Strategy.

Deliverable number: D8.1

Version 2.0



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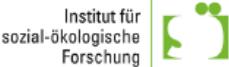
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EXECUTIVE SUMMARY

The communication and dissemination strategy describes how TRI-HP project will address different target audiences using channels such as social media coverage, newsletters, promotion material, partners' communication channels and the participation to events, both on an industrial and a technical level. This strategy covers the whole lifespan of the project, being constantly updated with new information coming from the outcomes of the different consortium members involved.

1. INTRODUCTION

The TRI-HP consortium consist of different actors in the fields of scientific research, manufacturing development and industrial production. The dissemination and communication plan describes how the TRI-HP projects and its results will be presented and to which target audience groups. This report is therefore aimed at the consortium partners, providing inputs from their channels of communication and dissemination, the European Commission, ensuring the engagement of project objective, and transversally to end-users, installers, building managers, residents and all the stakeholders groups that are involved in the consolidation of novel innovations in the energy sector.

Dissemination and communication activities are two complementary parts that substantially promote the project, homogenizing the key project results in an organic structure, and enhancing its visibility. In fact, while the dissemination pattern is mostly focused on knowledge and information transfer towards stakeholders and specific specialists, the communication one targets the general public, adding a public and social value by aiming at larger audiences.

This plan will be updated annually and it will include reports of the partners on their expected and actual dissemination activities, new dissemination material and amendments to the strategy, if necessary.

1.1 DELIVERABLE 8.1 SUMMARY

The ambition of TRI-HP project is focused on the developing of two system concepts, able to provide heating, cooling and electricity (trigeneration) based on heat pumps with natural refrigerants with a high share of on-site renewable sources. The analysis of this objective has to be carried along a strategy that allows technical and non-technical stakeholders to get in touch with the project advancements as well as interconnecting potential targets that the consortium itself is able to reach throughout internal channels. Considering different geographical and cultural contexts, the dissemination and communication plan is therefore ensuring the maximum impact of TRI-HP results, orienting tailored content, as necessary, to targeted audiences identified as needed for strategic engagement during the lifespan of the project.

2. GENERAL RULES OF COMMUNICATION AND DISSEMINATION

In order to set-up a well recognized project identity, each dissemination document and communication publication need to follow general rules. The application of standard guidelines in the editing of project publications is a requirement that assures an immediate and univocal recognition, establishing as well a direct visualization approach throughout all the users/recipients aimed to be the objective of the information process. The branding use guidelines established will be followed in all communication media and in use by project partners. Their continuous application alongside successful project achievements will improve the positive image for TRI-HP.

2.1 TRI-HP CORPORATE DESIGN AND GENERAL RULES OF COMMUNICATION

The logo of TRI-HP has to be used on every communication and dissemination related document as a visual element in printed and electronic media.

2.2 COMMUNICATION TOOLKIT-TEMPLATES

TRI-HP partners are obliged to use the corporate design and predefined templates of the project. The aim is to provide also editable templates for flexible communication that partners can adapt and use according to their needs also at national level. However, partners have to share and report back to the Work Package leader (REHVA) about all communication and dissemination documents prepared on national and international level.

List of TRI-HP templates:

- Logo
- Visual identity templates (document template, power point, poster, roll-up)
- Project leaflet template
- Poster template
- Visual identity style guide

2.3 INFORMATION ON EU FUNDING - OBLIGATION AND RIGHT USE OF THE EU EMBLEM

TRI-HP partners have to display the EU logo and to use the following references to the received EU funding in every printed and electronic publication:

"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 814888"

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3. TRI-HP DISSEMINATION AND COMMUNICATION STRATEGY

The main objectives of the communication activities are:

- raising the market awareness towards TRI-HP testing solutions among the widest target groups.
- promotion of the project results within the scientific community, industry, practitioners and manufacturers involved across the whole cycle of the trigeneration systems.
- engage stakeholders, public authorities and decision makers at the regional level to promote the deployment and further exploitation of the developed solutions.
- clustering with other European projects and other European and national initiatives to find synergies in joint exploitation and communication tools (i.e. organization of common events, exchange of best practices, common outreach activities).

3.1 TARGETED GROUPS OF COMMUNICATION

TRI-HP identifies the following stakeholders as target groups of communication and dissemination actions:

- End users: building cooperatives, and building owners, real estate companies, investors
- Installers.
- Building professionals, HVAC designers, architects.
- HVAC and RES technology manufacturers.
- Coating and coating applier industry.
- Refrigeration industry.
- Scientific community.
- Policy makers.
- Standardization bodies.

In the following updates of the communication strategy the method of how to reach and engage these groups will be described. Moreover, outcomes of the dissemination will be continuously monitored and reported to the European Commission

3.2 DISSEMINATION STRATEGY

Social acceptance by stakeholders and the engagement of professionals are the two main driven forces of the dissemination strategy, whose aim is to tailor specific activities to overcome information and knowledge barriers. A minimum of 10 scientific articles will be published during the course of the project while at least 20 technical articles will be published in journals and conference proceedings. It is also important to mention that University partners will participate in at least 25 national and international conferences during the project, while, starting from the third year of the project, at least 4 local workshops will be organized by the consortium's partners. A final project event will then be organized in Brussels, linked to a relevant EU event. The consideration of the EU stakeholders involvement is directly linked to the establishment of a community of interest where relevant EU actors will interact with the project development, gathering feedbacks through a tailored workshop, being then updated about the project development with further meetings. The research institutions partners will as well develop the essential activities related to education and trainings, offering from the third year of the project an on-line course and promoting it through European platforms dedicated to building professionals' capacity.

Following the indicative list in [Table 1] the consortium partners will therefore submit results from the project at international conferences and scientific journals, as well as professional events and trade shows reaching the different target groups from academia and industry till end-users:

- REHVA will disseminate the results towards practitioners, HVAC professionals and industry across Europe, using its own communication channels, professional events and trade fairs organized by its members' network
- TRI-HP will be promoted at international fairs among building service professionals and HVAC industry supporting the further exploitation of the technologies
- Project partners will present TRI-HP on national seminars and conferences in each respective country

Dissemination Channel	Activity Level	Reference
Publications	Scientific Articles	International Journal of Refrigeration, Energy and Building, Solar Energy, Applied Surface Science, ACS Applied Materials & Interface,, Energy Research and Social Science, Building Research and Information
Publications	Technical Articles	REHVA Journal (EU), planer+installateur (CH), Hk Gebäudetechnik (CH), KULDE (NO), NORSKVVS (NO), El instalador (ES), Climaeficiencia (ES)
Conference	International	CLIMA, IEA Heat Pump Conference, IBPSA (International Conference of the International Building Performance Simulation Association), IFAC (World Congress of the International Federation of Automatic Control), ICMEQP (International Conference of Manufacture Engineering, Quality and Production System), CMES (International Conference on Civil, Materials, and Environmental Sciences), IIR-Gustav Lorenzen Conference on natural refrigerants, IEA SHC (Solar Heating and Cooling Conference), SWC (Solar World Congress), WSED (World sustainable Energy Days), ISES Eurosun, EASST – (European association for the study of science and technology), ECEEE (European Council for an Energy Efficient Economy)
Conference	National	Tagung des Forschungsprogramms Wärmepumpen und Kältetechnik des Bundesamts für Energie (CH), Deutsche Kälte- und Klimatagung (DE), NKF (by the Norwegian Society of Refrigeration), NOVAP (by the Norwegian heat pump association), CNIT (National Congress of Engineering Thermodynamics) (ES), CYTEF (ES)
Professional Event (industry, fairs)	International	REHVA annual conference, CLIMAMED, Light and Building (Germany), ISH (Germany), MCE Mostra Convegno Expocomfort (Italy), EcoBuild (UK), FinnBuild (Finland), Chillventa (DE), C&R (International HVAC & R Exhibition) (ES)
Professional Event (industry, fairs)	National	Swiss Cooling Expo (CH) , NKF and NOVAP (NO), Energy4u and CEB (DE)

Table 1 Indicative list of dissemination channels and promotional events

3.3 COMMUNICATION CHANNELS AND TOOLS

TRI-HP and the project partners will use the following communication channels and tools:

Project website

The project website will contain up-to-date information on the project and its progress as well as news from the field and links to additional resources (such as publications or presentations). The content will be updated regularly by REHVA and extended when needed through the whole duration of the project. Organizations and people outside of TRI-HP project will use the website as the main interface in order to have updates and a detailed overview of the status and the achievements of the project. TRI-HP partners will as well interlink and promote the website in their institutional websites and social media groups.

SOCIAL MEDIA

TRI-HP will create social media accounts on LinkedIn and Twitter. All the partners are encouraged to join, follow, invite experts from their network and be active on the following social media:

- **LinkedIn** group (<https://www.linkedin.com/groups/13716473/>)
- **Twitter** account (https://twitter.com/TRI_HP_EU)
- **YouTube** account, where open access video material will be uploaded
- TRI-HP will as well create and share content on the **BUILD UP Portal** of the European Commission, in the relevant topics and groups coordinated by REHVA. Partners are encouraged to use and share the TRI-HP related content from BUILD UP or post also own content reported back to the WP leader

PROJECT LEAFLET

The project leaflet will be available both electronically and in print, and will be updated twice during the four years of the project. It will be used as a promotional tool and be shipped to partners in printed copies, also being available for adaptation and translation in electronic copy on the TRI-HP shared channels.

E-NEWSLETTERS

TRI-HP will publish an electronic project newsletter each 6 months (2 per year) that will be sent out from the project website mailing system and will also be further distributed by every project partner to their contact lists. The e-newsletter issues will be also available for download in pdf format from the TRI-HP project website. This document intent is to summarize the ongoing activities of the project and what has been accomplished. Each work package leader will be asked to contribute through the current status of task updates.

PRESS RELEASES

Press releases will be prepared once a year, distributed from the project website mailing system and disseminated also at the national or regional level using the most suitable channel in each partner' countries.

PARTNERS WEBSITES AND OWN COMMUNICATION CHANNELS

To multiply the impact and adapt the communication efforts, all partners will use their local media and own communication channels to disseminate project results and engage with local actors. Each partner is in charge to identify local stakeholders in its country and ensure that the project communication reaches the largest possible group of targeted actors at local level.

SHARED FOLDERS

Consortium partners will have an internal communication platform where it will be possible to share all the relevant documents, divided by work package and managed respectively by each work package leader. The platform currently in use is SWITCH (<https://www.switch.ch/drive/>), that can be integrated, when needed, by Google drive shared documents and spreadsheets.

COMMUNICATION AND REPORTING PLAN

REHVA will upload on the shared folders the "Communication and Reporting table" (see Table 2), that will have to be updated periodically by all the partners involved within the consortium. This table will follow-up, report and detail all the communication activities that are going to be exploited by the partners on a local and international level and it will be one of the main sources of information for the Communication and Dissemination report during the first year of the project that will be then updated at the end of each project's year.

In addition to this, all consortium partners are requested to share any proof of the undertaken activities, such as publications or photos of events. These will be included in the annex of the annual update of the dissemination and communication report.

Table 2 Communication and Reporting Table

PROJECT EVENTS

REHVA will organise at least 2 EU level, international TRI-HP project events:

- A project workshop at the CLIMA REHVA World Congress
- A final project event in Brussels during the European Sustainable Energy Week 2019

LOCAL WORKSHOPS

Four national workshops will be organised for engineers, building professionals, architects, building owners, investors, HVAC designers, tenants end-users and public sector representatives promoting the developed novelties on the trigeneration cycles within the TRI-HP project.

National workshops will be organized by SPF-HSR in Switzerland. Depending on the preferences of the partners, local workshops can also be replaced by webinars.

4. ROLE OF THE CONSORTIUM PARTNERS

All the partners will be involved during the communication and dissemination activities, exploiting the developed communication and dissemination tools provided during the lifespan of the project and being active as well through their own dissemination networks.

In table 3 below it is visualized a simple scheme interrelating partners communication tasks with the work packages involved:

Partner	WP2	WP8
HSR	Organize a workshop in Switzerland for stakeholders, provide networking to ISOE for social field studies in Switzerland	Participation in at least 3 conferences, organization of a workshop for dissemination in Switzerland, design of TRI-HP web page
TECNALIA	Organize a workshop in Spain for stakeholders, provide networking to ISOE for social field studies in Spain	Participation in at least 2 conferences, organization of a workshop for dissemination in Spain
CADENA		Participation in at least 2 conferences and 1 professional event
IREC	Provide networking to ISOE for social field studies in Spain	Participation in at least 2 conferences
ALFA LAVAL		Participation in at least 1 conference and 1 professional event
ILAG		Participation in at least 1 professional event and in 1 conference contribution
ISOE	Design of regional stakeholders' workshops for social acceptance	Participation in at least 2 conferences
NTNU	Organize a workshop in Norway for stakeholders, provide networking to ISOE for social field studies in Norway	Participation in at least 2 conferences, organization of a workshop for dissemination in Norway
DTI		Participation in at least 2 conferences
IKKU		Participation in 2 conferences
REHVA	Support the social acceptance of workshops to the involvement of stakeholders	Coordination and organization of communication and dissemination activities
EFC		Participation in at least 1 professional event and one conference contribution

Table 3: Consortium Communication activities in relation to different work packages

4.1 PARTNERS COMMUNICATION AND DISSEMINATION CHANNELS

Partner	Title of Activity	Type of Activity	Period	Location	Target Groups	Coverage Measure Unit	Number of reached targets
ALFAL LAVAL	Presentation of TRI-HP results	Training	2021	AL SC, Alfa Laval Sales Companies	Key Accounts	participants	10
ILAG	Presentation of TRI-HP results	Other	2020	ILAG	ILAG Sales and TECH	participants	10
	participation and short summary of TRI-HP project	Website	2019	-	ILAG Newsletter	page views	
Cadena	summary of TRI-HP project	Website	2019	cadena.ch, r744.com, hydrocarbons21.com	Architects, Engineers, Energy Specialists, Building Owners, Building Service Professionals	page views	
	summary of TRI-HP project	Social media	2019	To be decided	Architects, Engineers, Energy Specialists, Building Owners, Tenants, Building Service Professionals	people reached	
	presentation of TRI-HP results and product development	Event (other than a conference or workshop) participation	2019-2023	To be decided	Architects, Engineers, Energy Specialists, Building Owners, Building Service Professionals, Public Authorities	participants	
ISOE	short presentation of TRI-HP project	Website	2019	Website	Public Authorities, Scientific Community	page views	
	Presentation of TRI-HP results	Social media	2019-2023	Twitter	Public Authorities, Scientific Community	people reached	2000

	Presentation of TRI-HP results	Social media	2019-2023	Newsletter	Public Authorities, Scientific Community	people reached	
NTNU	Heat pump model and experimental validation	Scientific-Article in Journal	2020	Journal to be decided	Energy Specialists, Scientific Community	n/a	Citations (the impact is not immediate)
	Tripartite gas cooler design and testing	Scientific-Article in Journal	2020	Journal to be decided	Energy Specialists, Scientific Community	n/a	Citations (the impact is not immediate)
	Dissemination Workshop National level	Workshop organization	2020	Norsk Kjøleteknisk Møte (NKM)	Engineers, Energy Specialists, Scientific Community	people reached	200 participants or more
	Stakeholder Workshop National level	Workshop organization	-	To be decided	Stakeholders		
	Tripartite gas cooler preliminary test results	Conference Participation	2020	Gustav Lorentzen 2020	Energy Specialists, Scientific Community	people reached	300 participants or more
	Presentation of the project, ambitions, etc.	Publications -Non-scientific and non-peer reviewed (popularised publications)	2019	NTNU website and/or Gemini blog	Architects, Engineers, Energy Specialists, Building Owners, Tenants, Building Service Professionals, Scientific Community	page views	-
	Presentation of heat pump designs and preliminary testing	Publications -Non-scientific and non-peer reviewed (popularised publications)	2020	Kulde og Varmepumper (Scandinavian level)	Architects, Engineers, Energy Specialists, Building Owners, Building Service Professionals, Scientific Community	copies	?
SPF-HSR	short presentaton of TRI-HP project	Website	2019	HSR Website	Engineers, Public Authorities	people reached	3000

	Development and testing of supercoolers	Scientific-Article in Journal	2021	Journal to be decided	Energy Specialists, Scientific Community	n/a	
	Development and test of trigeneration systems using solar ice-slurry	Scientific-Article in Journal	2023	Journal to be decided	Energy Specialists, Scientific Community		
	Two presentation of TRI-HP results	Two Scientific-Publication in Conference proceeding/workshop	2019-2023	to be decided	Engineers, Energy Specialists, ESCOs, Scientific Community	n/a	
TECNALIA	Presentation of TRI-HP results	Conference Participation	2020-2023	to be decided	Energy Specialists, Scientific Community		
	Presentation of TRI-HP results	Scientific-Publication in Conference proceeding/workshop	2020-2023	to be decided	Energy Specialists, Scientific Community		
	Presentation of TRI-HP results	Scientific-Article in Journal	2020-2023	to be decided	Energy Specialists, Scientific Community	n/a	
	Presentation of TRI-HP results	Workshop participation	2020-2023	Spain	Architects, Engineers, Energy Specialists, Building Owners, Tenants, Building Service Professionals, ESCOs, Public Authorities		
UASKA	Experimental Results of supercoolers	Scientific-Thesis/dissertation	2020-2023	to be decided	Energy Specialists, Scientific Community	n/a	
	Presentation of TRI-HP results	Scientific-Article in Journal	2020-2023	to be decided	Energy Specialists, Scientific Community	n/a	

	Presentation of TRI-HP results	Scientific-Publication in Conference proceeding/workshop	2020-2023	to be decided	Energy Specialists, ESCOs, Scientific Community	n/a	
DTI	Presentation of TRI-HP results (DTI coating strategies)	Conference Participation	2020	to be decided	Engineers, Scientific Community	participants	100 participants or more
	Presentation of TRI-HP results (National, Scandinavian)	Conference Participation	2020-2023	to be decided	Scientific Community	n/a	
	Presentation of TRI-HP results (International)	Workshop participation	2020-2023	to be decided	Engineers, Energy Specialists, Scientific Community	n/a	
	Short presentation of TRI-HP project	Website	2019	DTI Website	Architects, Engineers, Energy Specialists, Public Authorities, Scientific Community	n/a	
IREC	Presentaton of TRI-HP project	Website	2019	IREC website	Architects, Engineers, Energy Specialists, Building Owners, Building Service Professionals, ESCOs, Public Authorities, European Organizations	n/a	
	Announcement of TRI-HP project	Social media	2019	Twitter	Architects, Engineers, Energy Specialists, Building Owners, Building Service Professionals, ESCOs, Public Authorities,	n/a	

					European Organizations, Scientific Community		
	Presentation of TRI-HP results	Scientific-Article in Journal	2020-2023	to be decided	Energy Specialists, Scientific Community		
	Presentation of TRI-HP results	Scientific-Publication in Conference proceeding/workshop	2020-2023	to be decided	Engineers, Energy Specialists, Building Owners, Building Service Professionals, ESCOs, Public Authorities, European Organizations, Scientific Community		
	Presentation of TRI-HP results	Scientific-Thesis/dissertation	2022	Spain	Scientific Community		
	Dissemination Workshop National level	Workshop organization	2022-2023	Spain	Architects, Engineers, Energy Specialists, Building Owners, Tenants, Building Service Professionals, ESCOs, Public Authorities	participants	

Table 4 Indicative List of partners communication and dissemination channels

5. CONCLUSIONS

TRI-HP project progresses will follow the indications given in this report, adjusting the approach to the communication and dissemination activities with further updates on the deliverable. The reporting related to the continuous process of the communication and dissemination plan is not a one-time effort since throughout the lifespan of the project all the partners are going to give feedbacks and show their outcomes with documentation material, workshops, education frameworks and national and international events .

It is important that all partners will adapt the official documentation of TRI-HP to this plan, In order to ensure project recognisability with successful dissemination criteria. This also includes the proper use of the project name, logo, templates as well as acknowledgment of EU funding.



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