



Deliverable 6.3

Communication & dissemination strategy & plan update

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PROJECT PARTNERS

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DTI: TEKNOLOGISK INSTITUT

DLR: DEUTSCHES ZENTRUM FÜR LUFT – UND RAUMFAHRT EV

EHPA: EUROPEAN HEAT PUMP ASSOCIATION

MYK: NV MAYEKAWA EUROPE SA

SINLOC: SINLOC-SISTEMA INIZIATIVE LOCALI SPA

EURAC: ACCADEMIA EUROPEA DI BOLZANO

EHP: EUROHEAT & POWER

DTU: DANMARKS TEKNISKE UNIVERSITET

TVP: TVP Solar

TIS: TIENSE SUIKERRAFFINADERIJ N.V.

TLK: TLK ENERGY GMBH

GEA: GEA Refrigeration Germany GmbH

SPIL: Spilling Technologies GmbH

SKPS: Smurfit Kappa Paper Services B.V.

SKC: SMURFIT KAPPA CZECH SRO

SP: STELLA POLARIS AS



ABBREVIATIONS AND ACRONYMS

C&D: Communication and Dissemination

HEU: Horizon Europe

HP: heat pump

ICHP WG: EHPA Industrial and Commercial Heat Pump Working Group

IHP: Industrial Heat Pumps

PUSH2HEAT: Pushing forward the market potential and business models of waste heat valorisation by full-scale demonstration of next-gen heat upgrade technologies in various industrial contexts

R&I Committee: EHPA Research and Innovation Committee

RTO(s): Research and Technological Organisation(s)

SPIRIT: Implementation of Sustainable heat uPgrade technologies foR IndusTry

SUSHEAT: Sustainable Heat Upgrade for Net-Zero

WP(s): Work Package(s)

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1. INTRODUCTION

Communication and dissemination (C&D) are two important components of the SPIRIT Project: they are essential to ensure the impact of the project results on key target audiences and to maximise the project's sustainability and transferability potential.

SPIRIT C&D plan intends to present the overall strategy dedicated to raising awareness, engaging stakeholders, promoting the project's results, achievements and generated knowledge. This deliverable defines the internal and external communication strategy, as well as some basic confidentiality rules for the Consortium to follow and qualitative and quantitative indicators in order to monitor the C&D strategy' implementation.

A sound communication and dissemination strategy is put in place via different networks and means providing information and ground rules about the planned C&D activities within the project. The present document is the third of the six deliverables under Work Package 6 - Dissemination and Raising Awareness. A first version of this report was prepared at an early project stage (M3). A short and non-detailed summary of the C&D activities implemented throughout the first 18 months of the project was given as part of the 1st Technical and Financial Report. This deliverable plans on integrating the list of implemented C&D activities while reviewing the initial plan to allow for corrective measures and adaptation to the raising needs of the SPIRIT project.

The aim of D6.3 is to provide an updated version of the Communication & Dissemination Plan (D6.1) submitted in M3 aiming to answer the following questions:

- What are the objectives of the communication and dissemination efforts?
- Who will be particularly affected by SPIRIT project?
- Who would be interested to know about the outcomes?
- What is the most effective way to reach the SPIRIT stakeholders?
- How should the C&D plan efficiency be measured?

An evaluation of the communication and dissemination results achieved throughout the first half of the SPIRIT project enabled the Consortium to assess the effectiveness of the initial C&D strategy included in Deliverable 6.1. The results of all the communication and dissemination activities carried out in the first 21 months of the

project have been very positive and, in most cases, have exceeded the expectations in terms of reached KPIs that were set at the proposal stage.

For this reason, it was deemed appropriate to continue adopting the initial guidelines outlined in the C&D strategy and plan submitted in M3, of which this deliverable offers a more complete overview and a more coherent organization. Not much has changed in terms of the methods the SPIRIT consortium intends to use for dissemination and communication about the project, compared with what was initially foreseen during the first months of the SPIRIT lifecycle.

The following sections include an overview of the C&D activities that have been implemented so far, followed by a comparison between WP6 KPIs integrated in the Project Grant Agreement and the numbers that have been reached between M1 and end of M20.

1.1 Objectives of the communication and dissemination plan

The communication and dissemination strategy and plan provides a clear overview on how all the communication channels, activities, tools are working together to address the relevant stakeholder groups.

This strategic document aims to develop:

- An overview of the C&D needs, stakeholder mapping, and analysis
- Shaping of the specific key messages, content strategy depending on the audience
- Selection of the proper tools to convey the messages (e.g., website, online seminars, video content, leaflets, digital visuals, learning resources, conferences, newsletters, articles, etc.) and overview of foreseen activities
- Dissemination activities foreseen
- Target indicators as well as monitoring and updating procedures
- Rules for an effective internal communication within the Consortium

- Governance and rules of the C&D strategy both internally and externally and responsibilities of the partners
- Ad hoc templates for SPIRIT deliverables and other documents

Work Package 6 is a horizontal work package, bridging in a cross-cutting way the SPIRIT activities and achievements. Although the content of this document relates directly to WP6, the strategy will not succeed without the full cooperation of the other Work Package leaders and all project partners' direct involvement and support.

The dissemination and communication strategy and plan explain how and when the Consortium will ensure that SPIRIT is visible as a project and maximises impact in terms of research, market uptake, policy and practical relevance.

The work will be divided into two areas:

- 1) the **communication activities** will focus on promoting the project's activities as a whole and raising awareness to a broad public base, informing decision makers.
- 2) the **dissemination activities** will focus on spreading the technical results of SPIRIT to target audiences and to seek collaborations with other projects in the area to continue knowledge building.

The overall aims of the strategy are:

- to create awareness of the challenges and benefits of heat upgrading technology in the industry for reducing energy costs and greenhouse gas emissions;
- to contribute to networking and exchange of information and experiences between organisations and to enable partners to receive regular process updates from the demo-sites;
- to support partners in effectively communicating and disseminating their work while facilitating a regular flow of information within the Consortium;
- to inform and raise awareness about the work in SPIRIT, so that the IHP installed in the three demo sites become models for other companies to follow, by

disseminating the project' approaches and results among relevant stakeholders at EU, national and local levels;

- to disseminate widely and effectively SPIRIT outputs through various channels and to translate technical language and research findings into appropriate messages for different audiences;
- to influence and educate relevant stakeholders with the aim of positively affecting technology uptake, research and legislative framework development;
- to ensure capacity building by training and knowledge transfer between the various target groups.

2. STAKEHOLDER GROUPS

The communication and dissemination strategy cannot be separated from a clear stakeholder analysis. The dissemination method is based on a stakeholder mapping that needs to be conducted together with the Consortium Partners. The mapping process, whose rules, methods and first results are identified in this section, determines the needs and characteristics of the audience thus allowing the use of effective messages to successfully reach the target groups.

This analysis provides valuable insights on the “rationale to engage” and “incentives to engage” of the different stakeholder groups and facilitates the dissemination process by using relevant and integrated communication tools aimed at ensuring SPIRIT's success. To ensure the relevance of the dissemination strategy, the effectiveness of the stakeholder analysis is monitored throughout the entire project duration and updated in this document in comparison to D6.1.

2.1 Stakeholder analysis

The SPIRIT project and therefore its Communication and Dissemination Strategy specifically aims at reaching the following target groups:

Category	Stakeholder
End-users	Representatives of the paper and pulp Industry
	Leaders of the chemical industry
	Representatives of the food and beverage industry
	Members of the machinery industry
	Members of non-metallic mineral industry
	Members of the refining sector
	Representatives of the energy sector
	Members of other process industries/industrial sectors in need of heat at 100-160°C
Technology Providers	Heat pumps manufacturers
	Components (of HPs) manufacturers
	Maintenance providers and installers
	Manufacturers of solar heat systems
	Providers of district heating systems
	Providers of low temperature thermal storage solutions
	Companies providing industrial heating and cooling solutions
	ESCOs and other energy service providers
Knowledge providers	Research and Technological Organisations
	Universities (also students)
	Energy consultants
Other	Public authorities (EU, national, local)
	NGOs and Associations

Table 1: Stakeholder analysis – target groups

The categories of stakeholders to reach are very well represented by the Consortium itself, which is composed of end-users, technology providers, knowledge providers and associations. This aspect will ensure that the target groups are more effectively reached, thanks to a more thorough identification of needs carried out by the partners themselves and thanks to a richer and complete contact network for both dissemination and communication activities.

Identifying the needs of the target groups is the main pre-requisite to shape the messages in the most successful way. The collective experience of consortium partners will guarantee a qualitative audience analysis aimed at investigating: what is their knowledge on the subject, what is their motivation to become involved, what are the barriers to have them involved, who influences them and their impact on social or regulatory aspects.

The Advisory Board further ensures that the audience of interested stakeholders is widened and enhanced by supporting and disseminating the project within their networks. At the current stage the SPIRIT Advisory Board consists of the following members:

Participant	Organisation
Markus Wilhelm Buecherl	BASF
Annita Westenbroek	CEPI
Milka Rama	VTT
Edwin Van Ruijven	Vattenfall
Mehdi Yusifov	BP (UK)
Leopoldo Mico	Solar Heat Europe
Loïc Gruson	Starch Europe
Hayato Hagi	Total Energies

Table 2: Members of SPIRIT External Advisory Board

2.2 Stakeholder mapping

The actual stakeholder mapping takes place throughout the project lifecycle based on the analysis highlighted in the previous paragraph. People are reached in three main ways:



- a) **SPIRIT Partners' network:** each partner is committed to promote SPIRIT through their own website, newsletters, social media pages and other communication means, with the final aim of informing their network and involve relevant actors that might be interested in following the project and possibly participating in its activities.
- b) **SPIRIT social media:** the project LinkedIn and X page are constantly updated with posts related to SPIRIT outcomes and encourage the public to get more involved in the project and to subscribe to the six-month newsletter
- c) **SPIRIT website:** it contains a section with the option to subscribe to the project newsletter and receive information on SPIRIT upcoming activities (summer school, webinars, publications, etc).

As WP6 leader, EHPA actively disseminates the project ambition, activities and outcomes also within its committees and working groups. Having more than 150 members, **EHPA Research and Innovation Committee** provides an opportunity to share information on heat pump Research and Innovation. The aim of the initiative is to establish a group and promote synergies between group members. SPIRIT will be effectively disseminated during one of the periodic meetings of the Committee, so to expand the base of reached audience. The presentation of the project will be carried out by EHPA, ideally in collaboration with other members of the Committee, namely TNO, DLR and EURAC, respectively as Project coordinator and WP leaders.

In M10, EHPA presented SPIRIT during one of the meetings of **EHPA Industrial and Commercial Heat Pump Working Group**. This Committee has more than 100 members coming from 29 different companies and provides a platform for manufacturers of Industrial and Commercial HP to discuss topics of relevance to the group.

3. COMMUNICATION TOOLS AND CHANNELS

The C&D strategy is available to all project partners for reference and guidance. It has been developed based on: the project Grant Agreement, EHPA experience in



communication and dissemination of EU project results, the experience deriving from the implementation of SPIRIT activities in the first half of its lifecycle and the general guidelines contained in the following documents:

- “Communicating research for evidence-based policy-making – A practical guide for researchers in socio-economic sciences and humanities” (European Commission, 2011)
- “Communicating EU Research & Innovation: A guide for project participants” (European Commission, 2012)
- “Are you communicating your Horizon Europe project?” (European Commission 2022)

As WP6 leader, EHPA coordinates the implementation of the tasks and activities carried out within the work package.

EHPA is supported by EHP in T6.1 (Communication and dissemination strategy and plan + update) and T6.4 (Policy briefs) and by TNO, DTI, DLR, DTU in the organization and completion of the Summer School on Industrial Heat Pumps (T6.3). Apart from these specific involvements, all partners take part to the communication activities and are responsible for the promotion and successful dissemination of SPIRIT.

The C&D strategy and plan represent the guide for partners towards the related activities and outline the appropriate channels and materials.

The following key activities are/will be developed:

1. Logo and visual identity creation and use for the project;
2. Conception of key messages and effective use of communication tools;
3. Development and management of the SPIRIT website;
4. Agreed and quality-controlled dissemination material (leaflets, presentations, newsletters, videos etc);
5. Collaboration with similar EU-funded projects (in particular with the *sister project* PUSH2HEAT) and cross-promotion through the organisation of joint webinars;
6. Project’ results dissemination through Social media (e.g. X, LinkedIn, YouTube);
7. Issue of Press releases to promote SPIRIT most important achievements;
8. Published project materials;

9. Publication of policy briefs;
10. Presence and presentations at onsite and online conferences, fairs and events related to renewable heating and cooling all around Europe;
11. Organisation and implementation of a Summer School on large-scale heat pumps as a way of engaging and educating the relevant target groups and advance progress;
12. Final SPIRIT conference in consultation with partners.

The activities of WP6 are discussed with the partners on an ongoing basis, to provide up-to-date information and to ensure the access to project materials for all partners and coherence of all dissemination messages.

In order to ensure consistency of all SPIRIT C&D activities, EHPA initially shared a spreadsheet (see Annex I) on the SPIRIT Teams internal channel with the aim of collecting inputs from all partners in terms of:

1. their participation in dissemination events,
2. the digital activities undertaken to disseminate the project accomplishments,
3. their scientific and non-scientific publications communicating SPIRIT's objectives, activities and outcomes.

The aim of the C&D strategy is to support SPIRIT in achieving maximum impact on all identified target groups and to make sure that the project results are effectively and coherently communicated to all interested stakeholders while easing the further exploitation of SPIRIT's achievements.

The work undertaken in Work Package 6 also contributes to ensure the sustainability and replicability of SPIRIT's results. It will include transfer of knowledge, raising awareness and supporting partners in other processes needed for future take-up, scale-up and follow-up.

WP6 also leads on translating technical findings into more reader-friendly messages. This means it must liaise with other partners to 'bundle' and where necessary (re)frame the project outcomes so that they resonate with different types of audiences. WP6 has a role in ensuring that outputs produced by the project are written clearly and unambiguously, avoiding jargon and technical language when possible/relevant.

3.1 Language

The language of this project is English. For purposes of consistency, adherence to British English spelling conventions is recommended where possible (guidelines available in the [EC English Style Guide](#)).

3.2 Visual identity (Logo/branding)

The official SPIRIT logo was the result of a thorough discussion occurred during the project Kick-off meeting, when the partners decided to work on other project branding alternatives starting from the logo that was initially included in the proposal.



Figure 1: SPIRIT official logo

Based on the Consortium's suggestions, EHPA took the initiative and proposed three different logo solutions. The majority of the voting partners (6 out of 11) chose Figure 1. More information on the messages, colours and shapes used for the official logo can be found in the SPIRIT brand book included in Deliverable 6.2.

The logo is the visual messenger of the project and it is reflected in all the communication materials. It is used in all templates, reports and dissemination activities during and after the project completion.

The brand targets: the general public, industrial stakeholders, technology suppliers, maintenance providers and HP installers, energy consultants, innovation and knowledge providers, universities, NGOs, decision makers, end-users.

3.2.1 EU Funding disclaimer

As per SPIRIT Grant Agreement, all the material used for the Communication and Dissemination of the project (including press release, conferences, seminars, information material, such as brochures, leaflets, posters, presentations, etc., in

electronic form, via traditional or social media, etc.) must contain the EU funding disclaimer.

For consistency reasons, all partners are invited to use the following ones:



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Figure 2: EU Funding disclaimer v.1



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Figure 3: EU Funding disclaimer v.2

3.2.2 Project's templates

Based on the approved visual identity (logo and branding of SPIRIT), templates for Microsoft Word and Microsoft PowerPoint have been developed by EHPA. These must be used by all SPIRIT partners throughout the full duration of the project for meetings, presentations, reporting and policy papers.

The templates have been developed as per any applicable rules and regulations of the European Commission and contain the EU project disclaimer (see more below) and the project official logo.

3.3 SPIRIT key messages

The main message of SPIRIT is: "the project aims to enable industrial heat pump technology to become the reference (climate neutral/friendly) technology for covering heat demand for temperatures up to 160°C by 2030".

Secondary messages are developed and used, when appropriate, together with the main message. These will respect the specificity of each communication channel, and

the profile and needs of the stakeholder groups and they will be developed upon the ones included in the following table.

Stakeholder	Needs	Contents of Key Messages
Industrial end-users of high temperature HPs	<ul style="list-style-type: none"> Improvement of the economic performance Reduction of manufacturing costs related to energy Enhanced energy efficiency Reduction of CO₂ emissions linked to industrial production 	<ul style="list-style-type: none"> IHPs can significantly reduce energy use, operational costs and emissions Concepts for high return on investments Concepts on the positive impact of IHPs on the environment
Component and HP manufacturers	<ul style="list-style-type: none"> Increase HPs and components sells Ensure a robust supply chain for a future IHP market Be aware of new technological developments that can improve the performance of IHPs 	<ul style="list-style-type: none"> Communication of standard methods for heat pump benchmarking Messages containing relevant data on sectors in which IHPs can be used
Consultants	<ul style="list-style-type: none"> Increase knowledge on options for energy efficiency improvement 	<ul style="list-style-type: none"> Tools for standard integration of HPs Knowledge about new business models
Maintenance providers and installers	<ul style="list-style-type: none"> Knowledge and competences on the commissioning and the long-run operation of IHPs. 	<ul style="list-style-type: none"> Training and information regarding new technologies
Universities	<ul style="list-style-type: none"> Have concrete applications for the studies developed Provide relevant training to their students 	<ul style="list-style-type: none"> Promotion of the summer school and formative webinars Dissemination of knowledge derived from the project
Research and technology organisations	<ul style="list-style-type: none"> Benefit from relevant research and concrete applications useful for the 	<ul style="list-style-type: none"> Dissemination of knowledge derived from the project

Stakeholder	Needs	Contents of Key Messages
	studies and products developed	
Public authorities	<ul style="list-style-type: none"> • Develop the regulatory framework in line with the market needs • Deciding on financial support to foster the industry 	<ul style="list-style-type: none"> • Promotion of solutions to achieve climate goals • Dissemination of figures on the reduction of CO₂ emissions thanks to HP technology • Showcasing R&I priority
NGOs and Associations	<ul style="list-style-type: none"> • Influence both policy makers and the general public and raise awareness on the tools to achieve a clean energy transition 	<ul style="list-style-type: none"> • Messages focussing on environmental-friendly solutions, transparency and scientific evidence.

Table 3: SPIRIT Key messages based on the type of audience

Based on the target group characteristics, a mix of tools is used to communicate the project activities and disseminate its outcomes.

Apart from the material published on the project website, SPIRIT foresees to reach the public through a combination of different tools that, thanks to their variety and different features, effectively reach and inform the whole range of stakeholders: from the most critical ones to the less interested parties.

The main project communication tools and activities, to be further explored in the following sections, are: the project website, promotional material, video-interviews, e-newsletter, social media pages, press releases, news articles and abstracts.

As for dissemination activities the following chapter will expand on: SPIRIT policy briefs, scientific publications, participation in conferences and other events, project's webinars, matchmaking events, SPIRIT summer school and final conference.

3.4 Website (D6.2 - M6.1)

Within WP6, EHPA is leading the action on developing a new website for SPIRIT. The chosen project website's domain is: <http://www.spirit-heat.eu/>.

The beta version of the website was ready by M4, open for all partners to see and comment while the final version of the website containing all the most relevant information regarding the project was live by M5 (January 2023).

The website is maintained by EHPA that is also responsible for content uploading throughout the whole project lifecycle and for maintaining it up to date until two and a half years after its completion.

All information is secure and follow General Data Protection Regulation and the requirements expressed in Deliverable 7.7 on the Protection of Personal Data (POPD). The website also hosts the resources developed under the other work packages and WP6 tasks, for example:

- Logos and descriptions of the partners involved in the project and logos of the ones involved in the Advisory Board
- A description of the demonstration sites and technologies integrated
- All open access project deliverables developed under the 7 work packages.
- The policy briefs produced and presented in online webinars and meetings with relevant policymakers (WP6, Task 4)
- The activities and results achieved within the three demonstration sites that will host the three large heat pumps (WP2)
- Pictures taken from the demo-sites (WP2), during the Project Consortium Meetings (WP7) and Fairs and Conferences attended (WP6, Task 6.2)
- Video interviews of the SPIRIT series "Heat pumps powering the industry: Meeting the Partners of the SPIRIT project"

- Business models developed and analysis of the contractual agreements which will encourage the commercial uptake of IHPs (WP5)
- News articles, press releases and (scientific/non-scientific) publications concerning the project
- Future events and recording of occurred events (WP6, Task 6.2)
- Dissemination material: logo, project general presentation in ppt format, flyer, poster and e-newsletter (WP6, Task 6.2)

The dedicated website is the main communication and dissemination platform allowing stakeholders, end-users, and the media to have access to the project activities and results. The website is a content generation tool where partners are going to be involved in developing content thus increasing SPIRIT visibility and maximizing its impact.

In brief, the key aims of the website can be reduced to three:

- 1) **To be the primary point of contact and information for SPIRIT:** to explain about the project's aims, provide the latest news updates, reports and other public deliverables for download, and redirect to social media activity related to the project.
- 2) **To act as a more general hub for outcomes relevant to SPIRIT:** to provide important updates on external policy/research developments that have an impact or are of interest to SPIRIT. This helps frame the project within a dynamic policy environment.
- 3) **To redirect to a simulation platform** (to be developed by TLK Energy, based on an existing digital web-based app) that will act as a heat pump tool, which can be freely used by interested actors to design, dimension and optimize the most relevant heat pump cycles. The platform will help evaluate HPs thermodynamic and economic performance, based on inputs for a heat source, heat sink, and additional boundary conditions.

The table below (Source: spirit-heat.eu AWstats) show the full numbers of visitors, visits, clicks on pages and hits from January 2023 to April 2024.

Month	Unique visitors	Visits	Pages	Hits
Jan-23	14	26	1.588	2.442
Feb-23	203	305	8.324	14.617
Mar-23	1.405	3.790	11.383	26.988
Apr-23	2.635	6.736	23.388	52.629
May-23	1.549	2.155	13.972	38.161
Jun-23	668	924	6.811	18.117
Jul-23	1.788	2.551	20.116	40.664
Aug-23	1.362	2.907	14.511	30.748
Sep-23	1.642	2.615	11.100	29.746
Oct-23	1.308	2.251	10.122	28.324
Nov-23	1.188	2.208	11.883	31.855
Dec-23	1.542	2.612	16.613	39.785
Jan-24	2.014	3.181	15.868	42.741
Feb-24	2.129	3.229	17.277	45.091
Mar-24	1.892	2.956	16.226	40.559
Apr-24	1.290	1.783	8.154	22.320
TOTAL	22.629	40.229	207.336	504.787

Table 4: spirit-heat.eu AWstats Jan 23 – Apr 24 (table format)

In the chart below the data from the table are reported, showing a consistent positive trend that counts an average of 2828 unique visitors and 5027 visits per month.

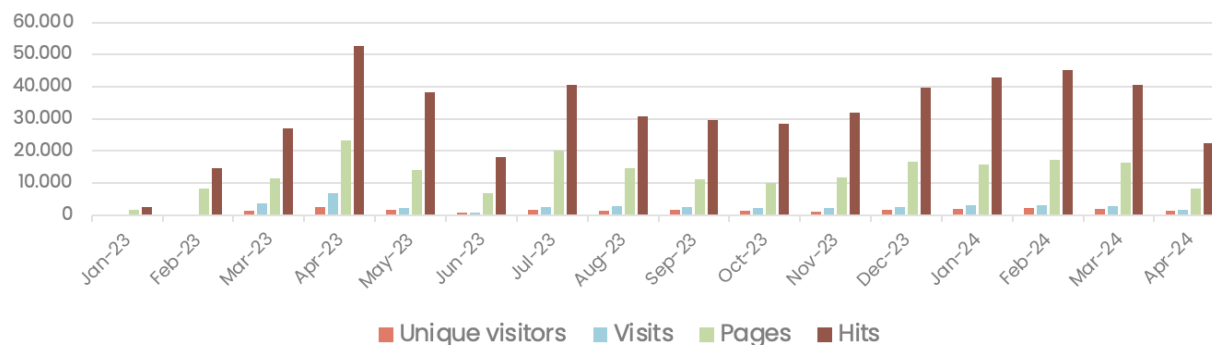


Figure 4: spirit-heat.eu AWstats Jan 23 – Apr 24 (chart format)

3.5 Promotional material & gadgets

In the first half of the project promotional material and gadgets have been designed and printed. SPIRIT flyers are 'short and catchy, they make use of existing images and have a light and portable format. The flyers include key information that make readers curious about the project while providing brief information on SPIRIT's objectives, consortium and outcomes.

They aim at attracting people's attention thus encouraging them to find out more about SPIRIT, its results and tools. Both flyers and poster have a QR code that redirect readers to a [linktree](#) including all relevant links to the project online presence: project website, LinkedIn, X, YouTube pages, e-newsletter subscription form, email address.

These are used for dissemination and promotion purposes at external conferences, fairs, meetings and seminars and they are available for download from the website.

In the first half of the project EHPA, with the help of the consortium has developed different types of project dissemination material:

- 1 A4 tri-folded flyer with SPIRIT's main information;
- 1 A4 tri-folded flyer mainly updating the visual elements of the previous one;
- 1 A4 easy-to-print poster with the main information regarding the project;
- 1 type of branded pens with SPIRIT and EU funding logos;
- 1 type of branded notepads with one of SPIRIT slogans, the project's and EU funding logos and disclaimer.

This material ([Figure 5](#)) has been very useful to disseminate and communicate about the project during relevant onsite events attended either by EHPA or other partners.



Figure 5: SPIRIT promotional material & gadgets

3.6 Promotional videos

Video content is used to increase the visibility of the project. Two types of videos will be created:

1. 15 Short Video interviews with project's partners
2. 3 videos more specifically related to the demonstration sites

These are uploaded on all the communication channels described in the communication and dissemination strategy to make sure that all key stakeholders are exposed to the respective messages. In addition to the communication channels, the videos are also posted on YouTube, together with the recordings of the 10 foreseen project webinars.

In order to enhance the visibility of the project and communicate the profiles and roles of the different partners involved in SPIRIT, a series of 15 short video interviews has been/will be recorded, edited, and published since November 2023 (ongoing activity).

The series, titled *'Heat Pumps Powering the Industry: Meeting the Partners of the SPIRIT Project,'* consists of videos lasting from 1.30 to 2.00 minutes each. In these videos, one or two representatives from each organization introduce themselves, their respective organizations, and the role of their company in the SPIRIT project.

From November 2023 to April 2024, 12 videos out of 15 have been published (see banners in [Figure 6](#)) and 3 are still to be edited and shared. The whole playlist can be found [here](#).

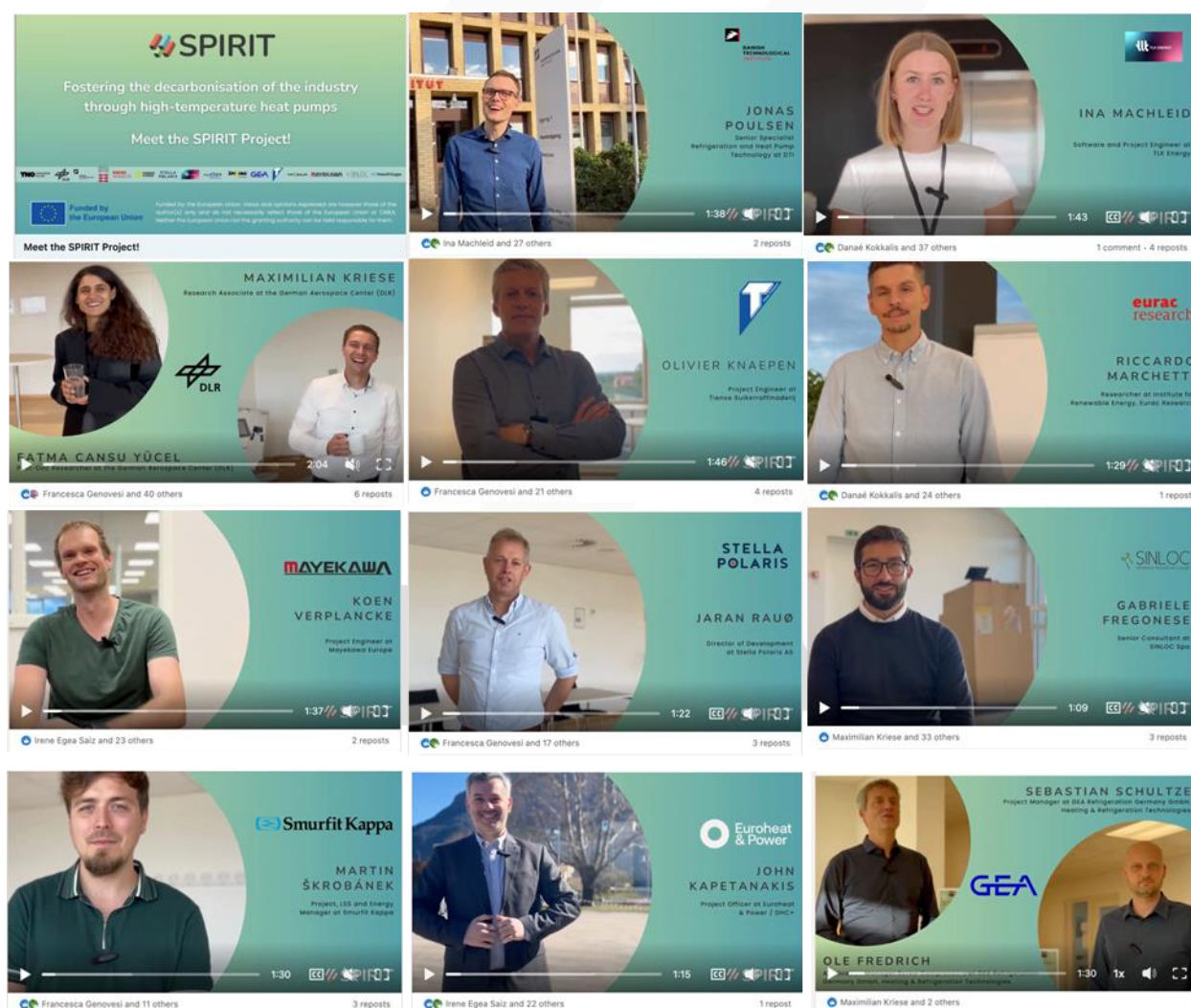


Figure 6: SPIRIT partners' video interviews published in the first half of the project

3.7 E-newsletter

E-newsletters ensure both communication and dissemination at different levels – national, EU and international – and keep the stakeholders updated with the findings of the project, inform about other relevant events, publications, key policy developments, key messages of the project partners.

Two newsletters per project year are foreseen for a total of seven e-newsletters.

The aims of the newsletters are:

- Informing project partners and stakeholders on the key findings of the project;
- Providing information about relevant external and internal events thus encouraging participation;
- Promoting and redirecting readers to project-related scientific / non-scientific publications;
- Disseminating key messages from Work Package Leaders;
- Ensuring project partners and key stakeholders are kept up to date on key policy developments at EU level.

The e-newsletter is being sent to the Consortium, the External Advisory Board and to all the SPIRIT newsletter subscribers.

The identity and formatting of these periodic emails are in-line with the pre-defined visual identity. The following is a proposed structure of each issue:

1. Timeline – on where we are in the project;
2. Editorial by the coordinator – giving an overview of the project's status (optional);
3. Short intro – with a summary of the number;
4. News from the demonstration sites: three paragraphs describing the activities implemented and next steps to take for each demo-site;
5. Events – Past / future SPIRIT Events and participation to external relevant conferences and fairs.
6. Partners' activities and events – relevant and in line with the project's scope
7. SPIRIT resources and materials – public deliverables and news
8. Logos of Consortium and Advisory Board

9. SPIRIT online presence icons - redirecting to: project website, LinkedIn, X, Youtube, email accounts

The schedule for the newsletter is as follows:

- M8 – April 2022 ✓
- M13 – September 2023 ✓
- M18 – February 2024 ✓
- M25 – September 2024
- M31 – March 2025
- M37 – September 2025
- M42 – February 2026

During the first half of the project 3 newsletter numbers have been issued and included:

- updates on the demo sites status and ongoing activities,
- published public deliverables,
- link to the news articles,
- summary and pictures of the events where SPIRIT was disseminated.

All partners, particularly those involved in the demonstration sites, contributed to informing the contents of the newsletters. The table below collects some numbers regarding the subscribers and their level of interaction.

1 st issue – April 2023 (link)	2 nd Issue – September 2023 (link)	3 rd Issue – February 2024 (link)
237 recipients / subscribers	249 recipients / subscribers	339 recipients / subscribers
135 unique opens	67 unique opens	113 unique opens
98 total clicks	43 total clicks	83 total clicks

Table 5: data on the first three SPIRIT e-newsletter subscribers

The subscriptions to the SPIRIT newsletter were collected in two main ways: (1) through a MS form published on the project website and reshared on social media; (2) through SPIRIT webinars registration forms that included an optional question on whether participants wanted to also subscribe and receive periodical updates on the project future activities.

3.8 Social media channels

The project has three social media pages: one on [LinkedIn](#), one on [Twitter/X](#) and one on [YouTube](#).

The pages were created in M1 (September 2022) and are now up and running, attracting followers who are interested in SPIRIT activities.

Some examples of the topics to be addressed in social media are: industrial heat supply, decarbonisation, energy optimization, economic performance, large-scale heat pumps, heat-pump demonstration, renewable energy, energy efficiency, energy storage. The stakeholder analysis informs the content strategy, i.e. the typologies of content to use and the best messages to reach the audience.

For an effective dissemination of SPIRIT in social media, it is vital for the partners to actively contribute and reshare the published contents, which will lead to incremental reach and traffic for all social media channels, as well as the website.

The Project LinkedIn page is the main permanent tool for a quick dissemination of the project's planned and past activities, after the SPIRIT website. As of April 2024 (last update 30.04.2024) it has over 730 followers and at least one post per week is being published depending on the number of ongoing activities that are worth being disseminated. The content published is mainly related to:

- the dissemination of the events SPIRIT is attending/organising (posts published before/during/after events),
- the project's consortium meetings,
- the project milestones and submitted public deliverables,
- the possibility to subscribe to the biannual e-newsletter,
- other relevant SPIRIT activities.

The two charts below illustrate the trend of impressions on LinkedIn since the project's kick-off. The second period, spanning approximately 8.5 months (M13 – M20), records roughly double the impressions compared to the first period, i.e. the initial 12 months of the project.

Metrics

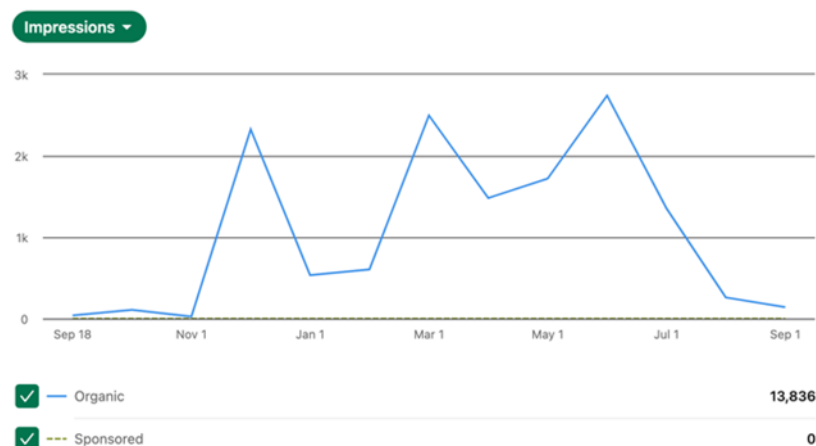


Figure 7: LinkedIn data for SPIRIT page for 18.09.2022 – 17.09.2023

Metrics

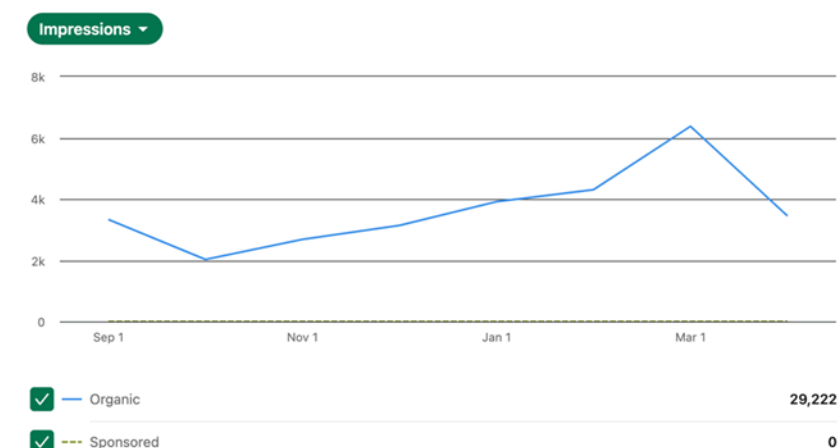


Figure 8: LinkedIn data for SPIRIT page in 18.09.2023 – 30.04.2024

Based on the SPIRIT LinkedIn Analytics, from M1 to M20 (September 2022 – April 2023) the number of posts published via SPIRIT LinkedIn account is 67. The average number of impressions (i.e. the number of times content is displayed on someone's screen) is over 600 per post. The average number of clicks is around 60/post, while the likes, reposts and comments average are respectively of 18, 0.12 and 2.2 per post.

These figures do not take into account the number of posts tagging SPIRIT published through the partners' accounts. As the C&D leader, EHPA periodically publishes posts mentioning and tagging SPIRIT, especially in connection to online events organized

within the framework of the project or attended fairs and conferences where the project is disseminated.

As for the Project X account, it currently has 58 followers, with a total of 65 posts published between M1 and M20 (last update on 30.04.24). The great majority of the content published on LinkedIn is also reshared on the X account. These numbers also account for the posts published via the EHPA account and reshared via the SPIRIT page.

Unlike LinkedIn and X, YouTube (which had 11 subscribers as of 30.4.24) is utilized less as a dissemination tool for the project and more as a repository for all video material related to SPIRIT. The three webinars organized within the project framework have been recorded and uploaded onto the YouTube platform, along with short video interviews featuring SPIRIT partners (ongoing activity, see below for more info).

3.9 Press releases, news articles & abstracts

Each partner may issue its own press releases but should inform all partners before sending it out in order to ensure accuracy and consistency of information. For every press release made mentioning SPIRIT, the WP6 leader (EHPA) should be informed; information collected will be used for reporting purposes and to ensure that all target groups and policy areas are effectively reached.

Press releases will also be written by WP6 partners at key points in the project's development and sent to external stakeholders.

Press releases will be drafted and circulated to the relevant Work Package Leaders for review and comments. If the work of one of the partners is mentioned in the press release, the partner in question shall be informed and approve of its contents.

Around 20 pieces of articles, press releases and news are initially foreseen to be published throughout the project, leaving the possibility for more publications open, depending on the project's progress, external events, policy developments etc.

Each press release will carry a key message about the project's work, with the aim of generating interest about the project's activities in other organisations. In order to increase the number of readers reached, the press releases will be published on the SPIRIT website as well and partners will be invited to share them on their own webpage.

In the first half of the project 10 pieces of news focusing on/mentioning SPIRIT have been published by the Consortium; here below a summary with the details and links to the publication.

PARTNER NAME	TITLE of PUBLICATION	LINK	TYPE OF PUBLICATION	TITLE of the JOURNAL	DATE
EHPA	"Game changing": SPIRIT project targets climate-friendly industrial heating	Link	Press release	EHPA, re-published by: SINLOC, eJARN, COOLING POST	16 September 2022
External organisation: RHC Platform	Implementation of sustainable heat upgrade technologies for industry	Link	News	ETIP RHC database	Oct-22
DTI	SPIRIT - Implementering af bæredygtige teknologier til opgradering af varme i industrien	Link	Press release	DTI website	Nov-22
EHPA	Industrial heat pumps: decarbonising industry for a greener future	Link	News	EHPA website	5 April 2023
EHPA	Large heat pumps: the future-proof technology for the new industrial revolution	Link	News	EHPA website	28 June 2023
EHPA	Don't waste your energy! How heat pumps reuse waste heat in industry	Link	News	EHPA website	16 November 2023
TNO, MYK, SP	SPIRIT demo case I: Full-scale on-site	Link	Conference Abstract	SPIRIT Website	January 2024

PARTNER NAME	TITLE of PUBLICATION	LINK	TYPE OF PUBLICATION	TITLE of the JOURNAL	DATE
	demonstration of a cascade industrial heat pump producing steam at 145°C				
DLR	SPIRIT Demo Case 3 – Integration of a high temperature heat pump in a paper mill	Link	Conference Abstract	SPIRIT Website	January 2024
DTI, GEA, TIS	SPIRIT Demonstration Case 2 – Integration of Heat Pump Technology in a Sugar Production Plant	Link	Conference Abstract	SPIRIT Website	January 2024
EHPA	Power to efficiency: unlocking industrial decarbonisation through heat pumps	Link	News	EHPA website	15 th March 2024

Table 6: Summary of news articles and publications concerning SPIRIT in the first half of the project

4. DISSEMINATION ACTIVITIES

4.1 Policy briefs

Under Task 6.4, a series of policy briefs is foreseen to be published to outline the key learning and recommendations of the project addressing specifically two main target groups: policy makers and experts.

The policy briefs will be written in a suitable format to clearly and effectively disseminate the project's messages. They will provide 'at glance' materials that outline all the learnings and recommendations of the project and will be delivered in a visually appealing format.

The policy papers will be informed by the outcomes of WP5 having the common aim of maximizing the technical and commercial impact of the heat pumps developed within SPIRIT. In particular, the results of task 5.2 on *Analysis of potential policy and regulatory barriers* will be used to inform the contents and messages of the policy briefs. These briefs will be presented during online seminars or in meetings organized with relevant policymakers.

Informational fact sheets will be prepared throughout the project in a digital format in English (also available on the website) and in hard copy format for distribution at workshops, events and conferences, in order to encourage the dissemination of the policy contents also among the general public.

EHPA and EHP, in charge of publishing the policy briefs will focus on this activity throughout the second half of the project when more outcomes from the ongoing activity under T5.2 and T5.5.

4.2 Scientific publications

SPIRIT expects at least five publications in international scientific journals. Examples of relevant journals and publications include:

- Energy Conversion and Management,
- Applied Energy,
- Renewable and Sustainable Energy Reviews,
- Energy, International Journal of Refrigeration,
- International Journal of Control,
- Hydrocarbon Processing Magazine.

During the first half of the project no scientific publications have been submitted. The partners have agreed to wait for the results from the integration of the technologies in the three demonstration sites before publishing scientific articles.

4.3 Participation in conferences, forums and events

Participation to external events, conferences and fairs is also foreseen to boost the project's results visibility. As per GA, SPIRIT foresees the participation in at least 10 international conferences and fairs making sure that all relevant stakeholder groups will be exposed to SPIRIT's messages.

An initial list of conferences, fairs and platforms is foreseen:

Type	Name	Audience	Coverage
Event	Sustainable Energy Investment Forums	Financial institutions, public authorities, ESCOs & other sustainable energy stakeholders	Europe
Event	European Sustainable Energy Week (EUSEW)	Sustainable energy European community (public, SMEs, Research, Cooperatives etc.)	Europe
Event	EU Green Week	Sustainable energy European community (public, SMEs, Research, Cooperatives etc.)	Europe
Event	ManagEnergy (Energy Agencies leading the energy transition) networking events	Energy agencies, local and regional authorities, financial institutions, policy makers	Europe
Event	DecarbCities	Sustainable energy European community	Europe
Event	Chillventa Trade Fair	EU Community of Refrigeration, AC, ventilation and heat pump manufacturers	Europe
Event	European Heat Pump Summit	European community of experts on Heat Pumps and decision makers	Europe
Event	IEA Heat Pump Conference	Sustainable energy European community	Worldwide
Event	EHPA Heat Pump Forum	EU Community of Refrigeration, AC, ventilation and heat pump experts	Europe
Event	Industrial Efficiency Conference	Sustainable energy European community	Europe

Type	Name	Audience	Coverage
Event	High-Temperature Heat Pump Symposium	Leading experts in the field of high-temperature heat pump systems	Europe
Event	International Conference on Energy Sustainability – ASME	Sustainable energy international community	Worldwide
Initiative, Platform & Conferences	Covenant of Mayors for Climate and Energy	Local and Regional authorities, public/private energy service facilitators	Europe
Networks and Financing Facilities	EU City Facility, EU Island Facility	Local and Regional authorities, public/private energy service facilitators	Europe
Advisory Forum	Energy Efficiency Financial Institutions Group	Financial Institutions, Energy Agencies, Research Centres, Think Thanks, European Associations	Europe
Open-source database	De-risking energy efficiency platform	Financial Institutions, Energy Agencies, Research Centres, Think Thanks, European Associations	Europe
Initiative, Platform & Conferences	Smart Specialisation Platform for Energy	Regional authorities, Energy & Development Agencies, Research institutes	Europe
Online data hub	European Energy Efficiency Platform	Energy sector stakeholders, policy makers	Europe

Table 7: Initial list of periodic conferences and events that SPIRIT could attend

All partners are encouraged to seek out opportunities to increase the impact of the project by presenting SPIRIT at external events.

Power Point presentations should use the SPIRIT Power Point templates, unless prohibited by respective partner organisations' regulations. If this is the case, presentations should clearly show the SPIRIT logo and the EC logo and funding disclaimer (See section 2.4).

Where appropriate, presentation content should be developed in close cooperation with the Coordinator or the relevant Work package leaders to ensure accuracy and consistency across the project as a whole.

For every presentation or attendance at conferences/workshops/other external events or meetings with policy makers or other stakeholders mentioning SPIRIT, the shared Dissemination and Communication Activity Tables (Annex I) should be filled within three weeks after the event has taken place. Annex I is an online document uploaded on the SPIRIT Microsoft Teams internal working environment.

Information collected on this form are used for reporting purposes and to ensure that all target groups are effectively reached and all dissemination activities within SPIRIT are reported to the EC.

In addition, as WP6 leader, EHPA actively seeks out opportunities to disseminate information and findings of SPIRIT to key stakeholders and networks.

Starting from an initial list of conferences, fairs and platforms foreseen in D6.1, during the first half of the project, SPIRIT was presented in different ways (flyers, oral presentation, power point presentations, etc.) in 28 external events. A list of these events, details and indicative number of people reached is given here below.

SPIRIT PARTNER	EVENT TITLE	EVENT TYPE	LINK	DATE	LOCATION	METHODS USED TO PRESENT	ATTENDEES
EHPA	Chillventa 2022	Fair	Here	11-13 October 2022	Nuremberg	Oral presentation	100+
EHPA	2 days Siemens Energy internal workshop's on Industrial Heat Pumps and Combined Heat and Power	Workshop	/	27-Oct-22	Brussels	Ppt presentation	13
EHPA	Accelerating the industrial decarbonisation with the REPower EU: Heat pump and paper industries' networking event	Networking event	Here	01-Feb-23	Brussels	Ppt presentation, round-table discussions	76
EHPA	International Sanitary and Heating	Fair	Here	13-17-Mar-23	Frankfurt	Flyers	> 100

SPIRIT PARTNER	EVENT TITLE	EVENT TYPE	LINK	DATE	LOCATION	METHODS USED TO PRESENT	ATTENDEES
TNO	IEA Annex 58 meeting	Meeting	/	24-25 Apr-23	Aarhus	Ppt presentation	
DLR, TNO, DTI, EHPA	14th IEA Heat Pump Conference	Conference	Here	15-18 May 23	Chicago	Flyers	~ 400
EHP	Euroheat & Power Congress in Torino	Congress and Exhibition	Here	23-24 May 23	Turin	Ppt presentation	350+
EHPA	Food for thought: how to decarbonise EU primary food processing?	Hybrid seminar	Here	12-Jun-23	Brussels	Ppt presentation, Flyers	~ 40
EHPA	Industrial and Commercial Heat Pump Working Group Meeting	Hybrid meeting	/	13-Jun-23	Brussels	Ppt presentation	25
EHPA	EU Sustainable Energy Week	Conference and Exhibition	Here	20-22 - Jun - 23	Brussels,	Ppt presentation, Flyers	2000+
EHPA	HEATLEAP Project Final Conference	Project final Conference	Here	06-Jul-23	Brussels and online	Oral presentation, Flyers	~ 80
EHPA	EHPA Heat Pump Forum - Advancing REPowerEU in a HeatBeat: The Heat Pump Accelerator	Conference	Here	27-28-Sep-23	Brussels	Flyers at booth and SPIRIT logo and description on HPF website	254
EHP	Renewables Grid Initiative's Energy & Space Workshop	Event/Exhibition	Here	27-Sep-23	Brussels	Flyers / poster	50
EHPA	Regional energy platform 2023 with an exhibition: Innovation, decarbonization in industry, transportation and oil industry, energy storage and the electricity market, green financing, heat pumps	Conference	Here	2-3-Oct-23	Novi Sad (hybrid event)	Ppt Presentation (in English and Serbian)	/

SPIRIT PARTNER	EVENT TITLE	EVENT TYPE	LINK	DATE	LOCATION	METHODS USED TO PRESENT	ATTENDEES
EHPA	RE-Energising Europe	Conference & Poster session	Here	24-25 Oct-23	Brussels	Poster	100
EHPA, TNO	European Heat Pump Summit	Conference and Exhibition	Here	24-25 Oct-23	Nuremberg	Flyers at EHPA booth and Presentation by TNO	570
EHPA	ISK – SODEX 2023 : International HVAC&R, Insulation, Pump, Valve, Fitting, Water Treatment, Fire Prevention, Pool and Solar Energy Systems Exhibition	Conference and Exhibition	Here	25-28 Oct-23	Istanbul	Flyers at booth	86.000+
TNO, EHPA	Congres Doorbraak Van de Warmtepomp	Conference	Here	15-Nov-23	Den Haag	Presentation	300
EHPA	International Conference on industrial heat pumps	Conference	Here	28-29-Nov-23	Prague	Presentation	
EHPA	ENLIT Europe – online EU Projects Directory	Conference and online directory	Here	28-30 Nov-23	Paris, Online	Project info uploaded on the online EU projects directory of the event	18000+
TNO,DTI, DLR, EHPA, TLK	HTHP Symposium 2024	Conference	Here	23-24 Jan-24	Copenhagen	Poster, presentation, flyers	400
EHPA	ZF Power Summit 2024	Conference	Here	27-29-Feb-24	Bucharest	Presentation	150
EHPA	EnergyFest 2024	Conference and fair	Here	27-Feb-24	Gent	networking	20
EHPA	Generación en Sitio. Una solución para la descarbonización de la industria.	Conference	Here	12-14-Mar-24	Ciudad de México + Online	Presentation	120/130
EHPA	Anuga Food Tec Fair	Conference and Fair	Here	19-22-Mar-24	Cologne	Video interview – presenting SPIRIT, flyers at	50.000

SPIRIT PARTNER	EVENT TITLE	EVENT TYPE	LINK	DATE	LOCATION	METHODS USED TO PRESENT	ATTENDEES
						booth, networking, SPIRIT logo on banner	
EHPA	Mostra Convegno Expo Comfort	Fair	Here	12-15-Mar-24	Milan	Flyers and networking at EHPA booth	90.000
EHPA	The Heat Pump Accelerator – Bridging climate with economic agendas	Conference	Here	19-Mar-24	Brussels	Flyers and networking	50-60
EHPA	New European Bauhaus Festival	Festival and fair	Here	9-13-Apr-24	Brussels	Flyers and networking	

Table 8: list of events where SPIRIT was disseminated in the first half of the project

4.4 Project's webinars

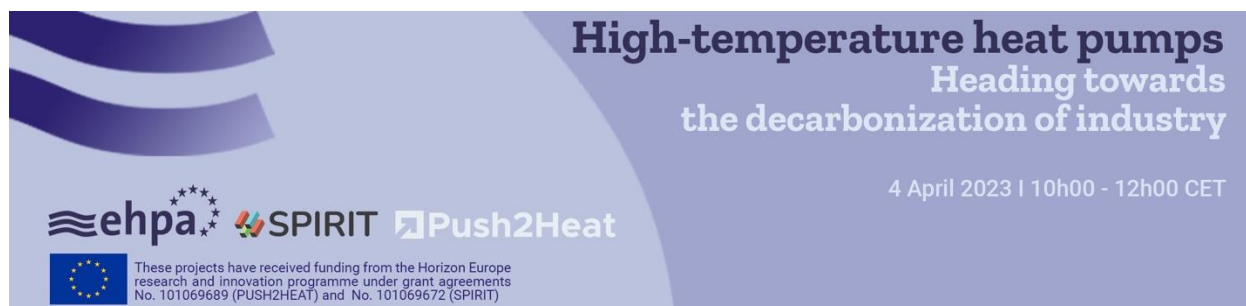
In the reference period, EHPA has organised four webinars in the framework of SPIRIT.

The format of the agendas has been the following:

- Short welcome and introduction (often giving a short presentation of the project),
- Opening speech by an expert in the sector of industrial heat pumps,
- Presentations by 3/4 professionals,
- Moderated panel discussion with pre-defined questions & questions from the audience,
- Final remarks and closing of the event.

In the following pages more details regarding each webinar are given.

SPIRIT webinar #1 – 4th April 2023



Background and aim of the event

High-temperature heat pumps and waste heat recovery can play a vital role in decarbonising the industrial sector. Despite the fact that their potential has been remarked, there are several technical, economic and regulatory barriers preventing them from being deployed at a large-scale. This webinar gave an overview of the state of the art of industrial heat pumps and provided some clues about the challenges and opportunities to be faced. This event introduced two projects, SPIRIT and PUSH2HEAT, whose aim is to identify and overcome those barriers. Both projects will scale up different heat pump technologies for heat upgrading and integrate them into the chemical, paper and food and beverage industries.

Speakers

				
Irene Egea Saiz European Heat Pump Association	Andrew Marina, Netherlands Organisation for Applied Scientific Research	Jochen Schäfer, Siemens Energy	Majder Epelde Technalia	Veronika Wilk Austrian Institute of Technology

Audience

- Registrations: 341
- Attendees: 224
- Views on YouTube: 1 558 views

Material available

- Recording: [here](#)
- Master Presentation: [here](#)
- News article: [here](#)

SPIRIT webinar #2 – 28th June 2023



Background and aim of the event

In order to achieve the EU's target of a net-zero economy by 2050, decarbonising our industrial heat supply is a top priority. Industrial heat pumps can use renewable energy from air, water or ground but also waste energy from buildings and processes to provide heating and cooling. Users of heating and cooling in many industrial processes can benefit economically from a most efficient use of energy while providing a significant benefit towards emission reduction and air quality. This webinar dove into the benefits of high-temperature heat pumps and it showcased some examples of real-world applications in industrial facilities.

Speakers

					
Sonia Bianconi European Heat Pump Association	Benjamin Zühlsdorf Danish Technological Institute	Christof Fleischmann Spilling Technologies	John van Rooijen GEA Heating & Refrigeration Technologies	Sander Geelen Geelen Counterflow	Vincent Grass Nestlé

Audience

- Registrations: 195
- Attendees: 133
- Views on YouTube: 392 views

Available material

- Recording: [here](#)
- Master Presentation: [here](#)
- News article: [here](#) or [here](#)

SPIRIT webinar #3 – 14th November 2023

EU perspectives on industrial heat pumps: unraveling non-technical barriers and opportunities

November 14, 2023 | 10:00 - 12:00 CET | Teams Webinar







Funded by
the European Union


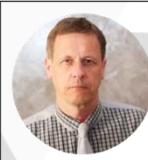


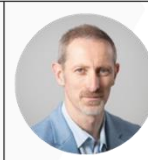
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Climate Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held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



Background and aim of the event

The event was organised in the framework of SPIRIT and PUSH2HEAT projects. The aim of the event was to explore non-technical barriers and opportunities within the heat pump sector, with a specific focus on Industrial Heat Pumps, from the perspective of different European countries: Denmark, The Netherlands, France and Ireland.

Speakers

						
Sonia Bianconi European Heat Pump Association	Veronika Wilk Austrian Institute of Technology	Yann Quinquenpois Daikin France	Jonathan van den Berg Netherlands Environmental Assessment Agency	Fabian Bühler Danish Energy Agency	Padraic O'Reilly Technical University of the Shannon	Seamus Hayne FEDARENE

Audience

- Registrations: 153
- Attendees: 93
- Views on YouTube: 300

Available material

- Recording: [here](#)
- Master Presentation: [here](#)
- News article: [here](#) and [here](#)

SPIRIT Webinar #4 – 14th March 2024



Background and aim of the event

This webinar was organized in the framework of the SPIRIT, PUSH2HEAT and SUSHEAT projects with the aim to present the challenges but also the solutions that hide behind the integration of industrial heat pumps, not only from the perspective of the technology provider but also from the point of view of the end-user, i.e. all those industries that are “heat-pump ready” and can benefit from the installation of this technology to power their processes.

To this end, after an overview of the most recent policy and technological developments that Europe has witnessed in the field of industrial heat pumps, a success story of industrial heat pump integration was presented from the perspective of the technology manufacturer and the end user.

Speakers

				
Irene Egea Saiz European Heat Pump Association	Alessia del Vasto European Heat Pump Association	Cordin Arpagaus Eastern Switzerland University of Applied Sciences	Arne Høeg Enerin	Eirik Anfinsen Solberg Pelagia

Audience

- Registrations: 224
- Attendees: 170
- Views on YouTube: 450

Available material

- Recording: [here](#)
- Master Presentation: [here](#)
- News article: [here](#) and [here](#)

4.5 Matchmaking events

In the framework of SPIRIT and PUSH2HEAT, the first online matchmaking event is organised in May, 28th 2024 (10.00 – 12.00 CEST).



Heat and Eat:
A Matchmaking Event for Industrial Heat Pumps and the Food Industry
Online Event
28 May 2024 | 10:00 -12:00 CEST

 **Funded by the European Union**

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This event aims to present the opportunities and benefits of high-temperature heat pumps when used in the food and beverage industry and to provide a space for heat pump & component manufacturers and food industry representatives to learn about the most relevant best practices in the sector and discuss opportunities for collaboration.

The event is divided into two main parts: the first hour will be about the potential of large-scale industrial heat pumps, the perspective of the food & beverage sectors on the decarbonisation of their processes and EU Funding opportunities supporting industrial CO2 reduction through this technology. The second hour is focused on interaction among participants representing the food & beverage and heat pump industries. The discussions will be organised around 4+ round tables on specific case studies.

During the event the two SPIRIT demonstration sites concerning the integration of high-temperature heat pumps in the food industry are presented in two of the four round tables.

This is the second Networking event where SPIRIT is presented. The first took place in Brussels on 1st February 2023 as collaboration between EHPA and CEPI. The event's title was "Accelerating the industrial decarbonisation with the REPower EU: Heat pump and paper industries' networking event".

4.6 Summer school (D6.5, M6.2)

The dissemination of the project outcomes will be actively carried out also through the organisation of a summer school on industrial heat pumps. The implementation of summer school will represent a project result itself, aimed at spreading awareness and promoting capacity building on IHPs through training.

The rationale at the basis of the summer school relates to the need to address the more general lack of knowledge and competences that hampers the widescale roll-out of industrial heat pumps in the market.

EHPA and DTU will be the two main organisers of the initiative: EHPA will take care of the logistics while DTU will elaborate the contents of the course and grant credits to the participants. Other partners having an important role in informing the technical chapters of the training will be: TNO, DTI and DLR.

After careful consideration, the partners involved in the organisation of the training have decided to postpone its implementation of a few months. Initially planned for the period between M25 – M30 (Sep 24 – Mar 25) the summer school will take place between M34 and M36 (June 2025 – August 2025). The decision to postpone it was driven by practical considerations. Initially planned for the winter season, such timing posed challenges in terms of organization and student attraction. Furthermore, it was deemed more advantageous to delay the event to ensure the operational readiness of the heat pumps at the demonstration sites before the start of the program. This delay will allow for the accumulation of preliminary results on the integration of the heat pumps, thus enriching the training with valuable data.

This decision was made at the kick-off meeting of the relevant task (27.11.2023) when partners met and also discussed about target groups to address, location, duration, structure of the training, roles and responsibilities. About these topics the following decisions were taken:

- Target groups

The main target group to be addressed will be Master and PhD students that have an interest in the topic, while representatives from the heat pump industry should not be excluded but not directly addressed either. This activity will be promoted not only by

DTU and EHPA but also by DTI, TNO and DLR but the number of participants should not exceed 25-30.

- Location

The Summer school will be held at DTU's premises in Denmark: the activities will only be onsite and they will not be recorded. Once the summer school is over, a public webinar will be organized to share the main takeaways of the training activity. The webinar will act as a booster for spreading knowledge on the main lessons learned during the summer school with the aim of also reaching those interested people that couldn't attend the training in person. The ratio behind this online seminar is to increase the impact of the summer school by reaching out to a wider audience of stakeholders throughout Europe. With the same logic, all training material used during the summer school will be uploaded on the SPIRIT website and will be freely accessible.

- Duration

The course should last at least 3 weeks, which is the minimum duration that will allow DTU to grant the students 5 ECTS.

- Structure of the training

The summer school could be structured in 2 main ways:

- a first part with frontal teaching mainly carried out by members of the SPIRIT consortium
- a second part with a project based activity
- 1/2 demonstration site visit(s)

- Roles and responsibilities

DTU will draft the overall programme of the Summer school and assign parts to RTOs. TNO, DTI, DLR should provide feedback to DTU concerning the Syllabus. EHPA will take care of the logistical aspects of the organization of the school.

4.7 Final conference (D6.5, M6.3)

In month 42, a high-level event will be organised to bring together stakeholders from all relevant fields and to share SPIRIT results, achieved objectives and impact. Thought leaders and experts on environmental sustainability, energy efficiency and large-scale heat-pumps, decision-makers and policy-makers at a European and national level will be invited.

The final conference will be held onsite, in Brussels, and will address experts, energy managers, researchers and policy makers wishing to be informed of the project outcomes and impact. The event will include speakers to update on emerging trends and solutions, in addition to those developed within SPIRIT.

The conference will be live streamed to increase the visibility of project results. A broad audience, focused on key target audiences identified, will be stimulated through multi-media and online tools.

The content and branding of the final conference will be developed and finalized in close collaboration with all the partners.

5. COLLABORATION WITH OTHER INITIATIVES AND EU PROJECTS

Ensuring the cross-promotion and networking with other similar projects and international initiatives is crucial to increase the overall impact of SPIRIT, as well as facilitating feedback and capacity-building.

The dissemination of information at EU and international level is done mainly by EHPA, EHP and the RTOs (TNO, DTI, DLR). The dissemination of information at national and regional level is done by all partners.

Collaborations with other EU funded projects are established by the Coordinator and WP6 leader – EHPA.

A list of relevant and ongoing EU projects is developed throughout the project on the basis of their affinity and cross-fertilization potential with SPIRIT. Collaboration and cross-promotion with at least 10 related EU-funded initiatives by the end of the project is expected.

The following table collects an initial but not exhaustive list of similar projects funded under the same call (but different topics) of the Horizon Europe Programme “Buildings and Industrial Facilities in Energy Transition” that are ongoing and can be asked for collaboration.

Project name	Topic	Start-end dates	CORDIS page
MODERATE – Marketable Open Data Solutions for Optimized Building-Related Energy Services	HORIZON-CL5-2021-D4-01-03 – Advanced data-driven monitoring of building stock energy performance	1st June 2022 – 31st May 2026	https://cordis.europa.eu/project/id/101069834
CHRONICLE – Building Performance Digitalisation and Dynamic Logbooks for Future Value-Driven Services	HORIZON-CL5-2021-D4-01-01 – Advanced energy performance assessment and certification	1st July 2022– 31st December 2025	https://cordis.europa.eu/project/id/101069722
INPERSO –Industrialised and Personalised Renovation for Sustainable sOcieties	HORIZON-CL5-2021-D4-01-02 – Industrialisation of deep renovation workflows for energy-efficient buildings	1st July 2022 – 30th June 2026	https://cordis.europa.eu/project/id/101069820
InCUBE – An INCIUsive toolBox for accElerating and smartening deep renovation	HORIZON-CL5-2021-D4-01-02 – Industrialisation of deep renovation workflows for energy-efficient buildings	1st July 2022– 30th June 2026	https://cordis.europa.eu/project/id/101069610
SmartLivingEPC– Advanced Energy Performance Assessment towards Smart Living in Building and District Level	HORIZON-CL5-2021-D4-01-01 – Advanced energy performance assessment and certification	1st July 2022– 30th June 2025	https://cordis.europa.eu/project/id/101069639
High-Quality Data-Driven Services for a Digital Built Environment towards a Climate-Neutral Building Stock	HORIZON-CL5-2021-D4-01-03 – Advanced data-driven monitoring of building stock energy performance	1st June 2022 – 31st May 2025	https://cordis.europa.eu/project/id/101069658

Table 9: initial list of projects SPIRIT can seek collaboration with



This list of projects (also available [here](#)) is not exhaustive, further collaborations are being sought with older and newer projects whose areas of action and objectives are similar to the ones addressed by SPIRIT.

Opportunities for collaborations with other EU-funded initiatives have been already foreseen at proposal level as not only covering communication and dissemination activities but also as a relevant support to the production of project outcomes.

For instance, the heat pump market analysis to be developed under Task 5.1 anticipates, as a final step, to extrapolate and evaluate the potential impact of heat pumps at global level by comparing and harmonizing it with the other projects granted under the same call.

Another example concerns Task 5.4: the drafting of recommendations for a competency framework for industrial heat pumps will have to be carried out coupling with the work being done in one or more of the following projects: BIMEET, BUSLeague, INSTRUCT, HP4ALL, the nZEB Roadshow, CraftEdu, and TRAIN4SUSTAIN.

In the first half of the project SPIRIT has been co-organising webinars with the following EU Projects and Initiatives:

PUSH2HEAT: 3 webinars and 1 matchmaking event have been organised in the framework of SPIRIT and PUSH2HEAT Projects. Having EHPA as leader of the Communication and Dissemination package of both projects facilitates and enhances collaborative opportunities between them. The joint webinars represent important learning opportunities for interested participants for further exploring the world of Industrial heat pumps, while getting familiar with the impact of both projects on their technical and economic performance.

SUSHEAT: 1 webinar organised in collaboration with SUSHEAT Project

Renewable Grid Initiative: participation in the poster session of an event organised in the framework of the Initiative.

Given the relevance of the scope of the **Processes4Planet Partnership** to the SPIRIT Project (i.e. aim to transform the EU process industries to achieve climate neutrality by 2050) in the second half of the project a webinar will be organized in collaboration with this initiative.

Additionally, with the aim of optimizing resource utilization, SPIRIT promotional material has been showcased at several fairs and conferences where EHPA participated, with the costs being split among all the projects the association is involved in.

6. C&D MONITORING

The following table collects the SPIRIT's C&D KPIs by providing an overview of what has been reached so far:

Channel	KPIs	Status by M21
Website	At least 10 000 users exposed to information on the project	20.000+ users have visited the website
Short videos	20 video-interviews with relevant stakeholders 3 videos regarding the demonstration sites	16 video-interviews of the Spirit partners recorded and published
Leaflets/flyers	At least 4000 distributed/downloaded during events	400+ flyers distributed; 170+ linktree views
Social media	At least 500 followers attracted and engaged	730+ followers on LinkedIn, 58 on X
Articles/Press releases/ news	At least 20 published	11 published
Webinars	At least 10	5
Collaboration with other projects for webinars	At least 5 (one of which is the sister project PUSH2HEAT)	4 (out of 5)
Conferences, fairs, events, meetings	Participation in at least 10	Participated in 28
Scientific peer-reviewed publications	At least 5	/
Newsletter	7 issues in total	3 issued
Summer school enrolled students	At least 20	/

Table 10: List of SPIRIT C&D KPIs and status as of M21

7. INTERNAL COMMUNICATION

Internal communication within the project consortium is key to an efficient and smooth execution of the project to maximise results. Clear communication between partners and exchange of ideas and interaction between work packages is not to be underestimated.

At project proposal stage, an ad-hoc channel on Microsoft Teams was created by DTI. The channel is private, which means that only pre-authorized people can access its contents. The same space is used as main collaborative platform where to hold internal meetings, exchange information and share drafts and final documents.

Three main tools are used by the partners for daily/periodic communication:

- **Emails:** they can be used for formal and official communication. The project mailing list, always open for new partner contacts to be added, is available in the SPIRIT Teams channel;
- **Microsoft Teams SPIRIT chat:** for informal communication directed to the whole consortium or for one-to-one messages;
- **Video-calls:** on Teams, collective or one-to-one.

A smooth communication within the Consortium will be ensured through different means:

- a) **Consortium meetings:** to be held in presence twice a year. All partners are required to participate. They are useful to update the Consortium on the whole state of progress of the project and to discuss important coming steps;
- b) **Steering Committee meetings:** to be held online between Work Package leaders every month (possibility to increase/decrease the frequency based on need);
- c) **Internal Work package/task meetings:** based on need, each WP leader can decide to have meetings with the partners involved in the WP execution.

As main responsible party for SPIRIT C&D, EHPA recommends and requests that each WP leader coordinates and communicates to EHPA both internal and external communication needs in order to maximize the impact and effectiveness of the project goals.

Successful dissemination requires the collaboration and involvement of all partners, therefore every partner will allocate time to dissemination and communication activities.

Partners shall support dissemination by:

- Inviting colleagues to: sign up to the SPIRIT newsletter, follow SPIRIT on its website, LinkedIn, Twitter/X and Youtube
- Linking the SPIRIT website to their own websites by creating an ad hoc page/section that describes the SPIRIT and redirects readers to the Project website – this improves the placement of SPIRIT on Google and other search engines;
- Circulating and disseminating SPIRIT leaflets, reports and other materials to possibly interested colleagues;
- Making presentations referring to the project or making presentations about SPIRIT (displaying the logo & EU funding disclaimer and referring to the SPIRIT website and social media pages).
- Make use of their organisation communication tools to help disseminate SPIRIT: website, newsletters, social media accounts, etc.
- Keeping records of all presentations and other kinds of dissemination activities carried out, as these are needed for EC reporting purposes.

8. CONFIDENTIALITY RULES

During the Project Kick-off meeting, the Consortium agreed on the need to outline some basic confidentiality rules ensuring a separation between information to be considered public, therefore open to be published, and information to be considered

partially sensitive, not to be shared with the general public before the approval of either all partners or only involved parties.

The Communication needs of the project will have to comply with the following guidelines that each partner has committed to follow. The guidelines are based on the Project Consortium agreement and are here below summarized for clarity reasons.

SPIRIT contents that can be shared with the general public, without the need for the whole Consortium's approval are the following: organisations involved (as Consortium partners and members of the Advisory Board), description of the objectives, foreseen activities and general overview of the technologies employed, partners' roles and budget. Infographics included in the proposal can be freely used when they give a general description of the project and partners' roles (not when used to depict the specific functioning of the technologies implemented).

The partners' approval is required for news articles regarding the specifics of the technologies developed and employed within the project. The internal quality control of the produced knowledge will ensure that all relevant information published within the project is accurate and correct.

In terms of Deliverables, the following table (Source: SPIRIT Grant Agreement, pp.89-91) highlights which documents are to be considered public (PU) therefore accessible by the SPIRIT website/social media pages, and the ones that are sensitive (SEN/SEN+PU), not to be published. Samples and summaries of the public deliverables might be used for dissemination purposes in news articles and for social media communication.

No. & WP	Deliverable name	Lead Partner	Type	Level	Due Date
D1.1	Basis of design	TNO	R	SEN	M3
D2.1	Testing program	TNO	R	PU	M3
D6.1	Communication & dissemination strategy & Plan	EHPA	R	PU	M3
D7.7	Protection of personal data (POPD) report	TNO	OTHER	EU-R	M3
D7.8	Environmental Protection and safety (EPQ) Report	TNO	OTHER	EU-R	M3

No. & WP	Deliverable name	Lead Partner	Type	Level	Due Date
D6.2	Visual identity, logo and templates	EHPA	DEC	PU	M4
D7.9	Project Management Plan	TNO	R	SEN	M5
D1.2	Basic engineering package	DLR	R	SEN	M5
D7.1	Progress report M6	TNO	R	SEN	M6
D7.5	Risk Evaluation Strategy and Risk Evaluation Template Document	TNO	R	SEN	M6
D7.6	Data Management Plan	TNO	OTHER	SEN	M6
D1.3	Detailed engineering package	DTI	R	SEN	M7
D2.2	Testing standard for IHP	TNO	R	PU	M7
D3.2	Lubrication system design	TNO	R	SEN	M10
D1.4	Heat pump skid	GEA	DEM	SEN	M16
D3.1	Optimized compressor design portfolios	DTI	R	SEN	M17
D7.2	Progress report M18	TNO	R	SEN	M18
D4.1	Modular heat pump design	DLR	R	SEN	M20
D6.3	Communication & Dissemination strategy & plan update	EHPA	R	PU	M21
D3.3	Zeotropic working fluids	TNO	R	PU	M24
D5.1	Market analysis	EURAC	DATA	PU	M24
D4.2	Integration concepts and recommendations	DTI	R	PU	M25
D3.4	Case studies for the application of digital-twin	DTI	R	PU	M28
D2.4	Steady state and dynamic models	DLR	OTHER	PU	M30
D5.3	Business models and contractual agreements	SINLOC	R	PU	M30
D6.5	Summer school on IHP technology	EHPA	DEC	PU	M30
D7.3	Progress report M30	TNO	R	SEN	M30

No. & WP	Deliverable name	Lead Partner	Type	Level	Due Date
D4.3	Heat pump integration tool	TLK	OTHER	PU	M33
D2.3	Demonstration & performance monitoring	DLR	R	PU	M36
D5.4	Technology transfer to district heating sector	DTU	R	PU	M36
D7.4	Progress report M36	TNO	R	SEN	M36
D1.5	Future plans of Industrial demonstrators	TNO	R	SEN	M38
D4.4	Lifecycle analysis	TNO	R	SEN	M40
D5.2	Policy, regulatory and non-technical barriers	EHPA	R	PU	M40
D5.5	Skill and competency recommendations	EHPA	R	PU	M40
D5.6	Market implementation strategy	DTI	R	SEN	M40
D1.6	Lessons learned	TNO	R	PU	M42
D6.4	Newsletters	EHPA	OTHER	PU	M42
D6.6	SPIRIT final conference	EHPA	DEC	PU	M42

Table 11: List of SPIRIT deliverables

According to the SPIRIT Consortium Agreement (p. 22): “prior notice of any planned publication shall be given to the other Parties at least 45 calendar days before the publication. Any objection to the planned publication shall be made in accordance with the Consortium Agreement by written notice to the Coordinator and to the Party or Parties proposing the dissemination within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted”.

For a smoother and faster communication and dissemination activity, the above rule should only apply to scientific publications.

In addition, according to the SPIRIT Consortium Agreement (p. 22): “a Party shall not include in any dissemination activity another Party's results or background without obtaining the owning Party's prior written approval, unless they are already published”.

9. ANNEX I - C&D ACTIVITIES TABLES

[illegible]

SPIRIT - PUBLICATIONS

Please add in this table all the publications in which you participated/ will participate promoting the SPIRIT Project

PARTNER NAME	TITLE of PUBLICATION	LINK	AUTHORS	TITLE of the JOURNAL	PUBLISHER	YEAR/MONTH of PUBLICATION	PEER REVIEW ED (yes/no)	OPEN ACCESS (yes/no)	OPEN ACCESS REPOSITORY USED (name and link)	COST	ADDED ON WEBSITE (EHPA)



SPIRIT- ONLINE ACTIVITY

Please add in this table all online activities in which you participated/ will participate promoting SPIRIT

PARTNER NAME	TITLE OF THE NEWS	JOURNAL NAME (if on a journal)	TYPE of ACTIVITY (website, social media etc..)	LINK	DATE	DESCRIPTION	N. PEOPLE REACHED	COUNTRIES ADDRESSED	MAIN TARGET GROUP	STATUS: PERFORMED or PLANNED

