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REHEATEAST

Stakeholder identification and communication plan

Deliverable 1.1.1

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Executive summary

The REHEATEAST project aims to **mitigate fossil energy consumption in district heating and cooling systems, while promoting the integration of renewable energy and waste heat.** Through fostering multi-stakeholder collaboration and cross-sectoral partnerships, the project seeks to develop, test, and disseminate feasible solutions for large-scale building and system rehabilitation programs, as well as climate adaptation measures in the Eastern Danube Region. The **cooperation of partners, knowledge-sharing, and awareness-raising activities** to improve cooperation among stakeholders are crucial for accomplishing these goals.

This Stakeholder identification and communication plan outlines the approach of the REHEATEAST project to engage stakeholders across the Eastern Danube region. The plan identifies key stakeholder categories, which consist of heat producers, utilities, authorities, regulators, financiers, technology suppliers, contractors, media, and consumers.

Their knowledge and insights will help in understanding the **technical, regulatory, social, and financial conditions** as well as future perspectives and development potential of district heating and cooling systems within the region and potential for change. Through this communication plan, REHEATEAST aims to **enhance the impact of its actions and broaden its outreach.** It provides a **framework for stakeholder engagement, enhancing their involvement and raising awareness of the feasibility and multiple benefits of transforming district heating and cooling systems, including buildings in which heat is consumed in line with the EU EED (hereinafter: Energy Efficiency Directive) and the EU EPBD (hereinafter: Energy Performance of Buildings Directive)**

Throughout the project, the communication strategy will **remain flexible and adaptable** to the project's needs, incorporating insights and lessons learned. In doing so, REHEATEAST remains dedicated to advancing sustainable district heating and cooling solutions and fostering collaboration across the Danube region.

Abbreviations and acronyms

DHC	District heating and cooling
EBRD	European Bank for Reconstruction and Development
EED	Energy Efficiency Directive
EIB	European Investment Bank
EPBD	Energy Performance of Buildings Directive
EU	European Union
GDPR	General Data Protection Regulation
SO	Specific Objective

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1. Introduction

The REHEATEAST project aims to reduce DHC systems' fossil energy demand by decreasing energy waste (in buildings and DHC networks) and integrating renewable energy (with a special emphasis on geothermal) and waste heat. It encourages multi-stakeholder, cross-sectoral, public-private cooperation and develops, tests, promotes and distributes applicable (process, technical and nature-based) solutions. The project also strives to drive the transition of DHC systems to reduced temperature levels which will enable the integration of local renewable energy sources (RES) to a larger extent.

The overall objective of REHEATEAST is to find and promote measures and widely adaptable solutions to the financial and environmental sustainability challenges of DHC systems in the Danube Region. This is why **partnership-building, knowledge-sharing, awareness-raising and enhancing cooperation** between relevant stakeholders is important to achieve tangible results. Communication messages will highlight the importance of continuous education for professional and institutional stakeholders. Towards the general public, the communication objective is to increase awareness and interest in DHC systems.

REHEATEAST aims to promote catalytic measures and adaptable solutions to reduce fossil energy demand via knowledge-sharing, awareness raising and enhanced stakeholder cooperation. The project intends to promote a holistic approach instead of silo thinking (addressing closely linked issues separately) and facilitate steps for subsequent transformative investments linked to efficiency, waste heat, heat storage, geothermal energy, billing practices, etc. REHEATEAST also plans to raise awareness to tackle sectoral issues, e.g. financing/regulatory concerns/information dissemination, etc.

Its communications slogan and campaign title "Over 10 under 100" summarises its demand-side ambitions and sets the long-term ambition for buildings with at least ten apartments within cities with over 10,000 DHC consumers, to decrease the specific average annual heat consumption below 100 kWh/m². The EED establishes 'energy efficiency first' as a fundamental principle. Energy efficiency must be considered in all relevant policy and major investment decisions. Target indicators for minimum energy performance requirements for buildings (MEPRs - EU EPDB Directive on the energy performance of buildings) cannot be reached with low efficient DHC.

The supply-side ambition is to facilitate meeting the EU Energy Efficiency Directive (EED, EU/2023/1791) criteria for 'Efficient district heating and cooling' (defined in Article 2(41) of the EED): a DHC system using at least 50% renewable energy, 50% waste heat, 75% of cogenerated heat or 50% of a combination of such energy and heat. This should be achieved in line with basic energy planning and management principles, designing capacities for sufficient (not wasteful) demand.

Taking an integrated, holistic approach of energy supply and demand; green and digital transition; technical and stakeholder/user behavioural circumstances and urban infrastructure synergies is important. The project aims to align stakeholders' interests, raise awareness of key issues, and dispel misconceptions. REHEATEAST will impact behaviour by increasing transparency, fostering networking and peer-to-peer learning, pilot actions and site visits.

The first specific objective of the project concentrates on gaining a detailed picture of the **technical, regulatory, social and financial conditions of district heating and cooling** (hereinafter: DHC) systems with particular focus on common and specific challenges, and existing good practices in the REHEATEAST region. In the heating and cooling sector, including DHC, there are numerous stakeholders who influence developments, some primarily on the supply side and the others on the demand side. To successfully transition to green energy across both building and energy supply sectors, it's crucial to engage all key stakeholders and facilitate their cooperation. Therefore, enabling effective communication with various stakeholders is of high importance.

The first step in the project is to develop a communication plan for stakeholder engagement, applicable for the Specific Objective 1 (hereinafter: SO1) goals. This deliverable aims to outline the approach, strategies and tools to identify key stakeholders and develop an efficient communication plan to foster their optimal involvement. In this report we will identify stakeholders of various backgrounds. The end goal is to **harness their valuable insights**, build support and foster collaboration towards achieving project objectives.

2. Communication plan

2.1. Structure and basis

This communication plan outlines the key stakeholders and methods for effective communication and collaboration **within the Specific Objective 1** (hereinafter: SO1) of the REHEATEAST project. It will effectively communicate to stakeholders the economic, social, environmental and climate needs, as well as the feasibility and benefits of radically changing the supply and demand side of DHC systems. The REHEATEAST project will raise awareness of the proven methods and tools on policy changes, behavioural adjustments, operational enhancements, and successful innovative social, business and technical approaches to make DHC financially and environmentally sustainable.

In DHC supply-side activities the focus is primarily on technical, regulatory and financial issues. Organisational and stakeholder engagement, and collaboration aspects have high emphasis in DHC demand side activities (building energy efficiency and nature-based solutions). The aim is to foster a collaborative environment among stakeholders, equipping them with the knowledge and insights needed to make well-informed decisions and implement effective measures for optimal heating and cooling solutions. This primarily involves focusing on optimisation and modernization of DHC systems and implementing high-impact neighbourhood or territorial (building) retrofit projects. This approach not only **fosters a deeper understanding of the current situation** but also encourages stakeholders to embrace positive changes that enhance the sustainability and efficiency of DHC infrastructure and DHC supplied buildings.

The purpose of this deliverable is to streamline the communication activities of the consortium within the scope of SO1 and to effectively coordinate them to achieve the project goals.

2.2. Purpose and goals

This deliverable aims to engage a wide range of stakeholders and facilitate the dissemination of knowledge and behavioural change among target audience groups. It ensures that the project successfully identifies, collects and utilises data to enhance development of DHC systems. It is also beneficial for the stakeholders themselves, as they can gain the information on feedback and challenges faced by different groups, enabling them to promote their ideas, goals and achievements.

SO1 of the REHEATEAST project aims to gain a detailed picture of the **technical, regulatory, social and financial conditions of DHC systems** with **particular focus on common challenges and existing good practices** in the REHEATEAST region and beyond. The objective is intertwined with the ambition to **strengthen stakeholder engagement and collaboration**. The regional status quo and specific challenges are explored via **intensive stakeholder involvement** enabling a better understanding of their interests and concerns while simultaneously raising their awareness.

To **understand the status quo** of DHC systems, it is essential to **engage a wide range of stakeholders**. The communication target groups of SO1 include **DHC service providers, municipalities** as owners, **construction companies** and **financial institutions** interested in and financing refurbishments of district-heated buildings, as well as **DHC consumers** - covering major target user groups of the services. Furthermore, activities under SO1 provide opportunities to **raise stakeholder awareness** of the multiple benefits associated with changing policies, behavioural shifts, operational improvements and strategic investments.

Given the nature of the project, effective communication with key institutions is crucial to strategically and efficiently gather the data from target groups. Therefore, this Communication plan aims to **enhance the coordination of communication activities to streamline data processing as efficiently as possible**. It covers the main goals, key stakeholders, communication channels and tools. To ensure effective communication, each project partner manages its own national stakeholder engagement activities.

Table 1 Communication goals

Communication phase/activity	Objective
Identify stakeholders	Identify relevant institutions and stakeholders, select the representative sample (e.g. in terms of size per stakeholder type)
Provide support to the stakeholders to strengthen the delivery of data	Empower stakeholders by providing motivational guidance, clear explanations, and comprehensive support to enhance their proficiency in providing feedback and information effectively
Improve multilateral collaboration	Encourage stakeholders to actively engage in cooperation efforts and open dialogue, which will foster improved collaboration among stakeholders.

2.3. General Data Protection Regulation (GDPR)

The REHEATEAST project prioritizes the security and integrity of personal data in line with the General Data Protection Regulation (GDPR). This means that throughout the communication activities, project partners shall comply with standards governing data collection, processing, and storage, ensuring transparency, fairness, and accountability. Stakeholders' personal information, including contact details and feedback, will be collected with explicit consent and for legitimate purposes related to stakeholder engagement.

Moreover, GDPR compliance is emphasized at every stage of stakeholder interaction within the project. Stakeholders are empowered to exercise their data rights, such as access, correction, and deletion. Overall, the REHEATEAST project upholds GDPR principles not just as a legal obligation but as a basis of ethical data management, promoting trust and accountability among stakeholders.



3. Stakeholder identification

The target groups have already been defined in the Application Form and are listed in the following figure. Communication messages and activities will be tailored to ensure that each of these groups recognizes its specific interest in project activities and results, motivating them to respond to collaboration invitations (e.g. participating in survey, attending events, etc.), staying informed about the outcomes of the project activities or engaging in behavioural change.

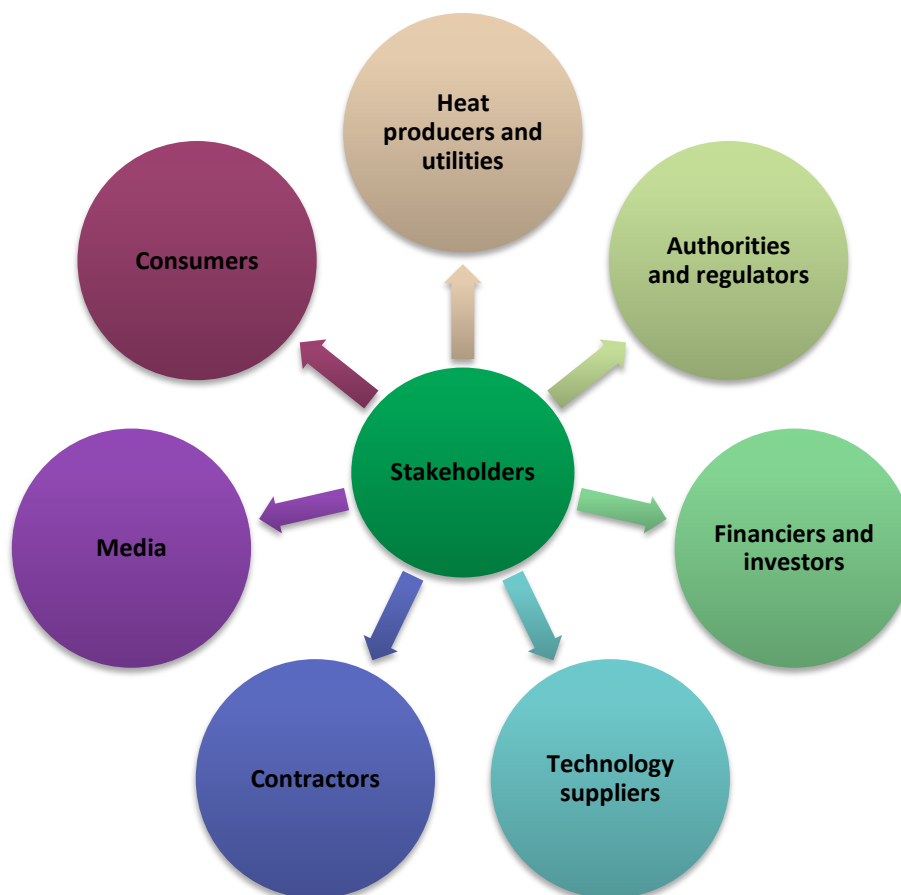


Figure 1 Target groups

Engaging diverse stakeholder groups like the ones seen in the figure above demands tailored approaches. Effective engagement requires clear communication, alignment with goals, partnership-building, and solution-oriented approaches. By addressing these diverse perspectives, trust can be fostered, leading to collective action for sustainable and efficient DHC systems.

4. Stakeholder categories

Communication activities with target groups are crucial because they are necessary to collect information strategically and efficiently. Therefore, this chapter outlines the key stakeholder groups on the REHEATEAST project.

4.1. Heat producers and utilities

Heat producers and utilities are among this project's most important target groups, as they can contribute valuable insights with their expertise and vast experience. Parties of interest within this group are energy companies, power plants, industrial facilities, renewable energy producers (e.g. biomass, solar district heating, geothermal, etc.), power utilities, distribution network operators, fuel and waste heat suppliers. Producers and utilities have been grouped in one category due to the possibility of some entities fulfilling both roles simultaneously.



The project can significantly benefit from working with heat producers and utilities by obtaining necessary information on methods for reducing emissions, energy production processes, and overall system efficiency. They supply diverse consumers, including households, industries, and services. Therefore, they can provide valuable insights into challenges with the supply side of the DHC systems and identify investment priorities with the highest potential. Furthermore, they can provide information on strategies to improve DHC system performance, maximize energy efficiency, and reduce environmental impact. Moreover, heat producers can contribute significantly to integrating waste heat technology, renewable energy sources, and other ways to raise the sustainability of DHC systems. Their extensive knowledge of needed infrastructure improvements, energy production challenges and integration of renewables is very insightful.

4.2. Authorities and regulators

Another important group are the authorities and regulators, who actively shape regulatory documents and DHC initiatives. They include organisations such as governmental institutions, municipalities, regulatory agencies, environmental protection agencies, spatial planners, local/regional energy agencies, energy market regulators, regulatory institutions, and organizations monitoring standards. These target groups have valuable experience in regulatory frameworks, ensuring compliance with laws and regulations, have the potential to speed up the approval processes for DHC projects, and modify regulations to enable DHC and building sector transformation.



Amongst other objectives, SO1 of the REHEATEAST project aims to obtain insights into the region's regulatory circumstances and relevant policies. With the help of authorities and regulators, the project will be able to identify regulatory obstacles, highlight the most critical problems with compliance with the guidelines, and provide feedback on the needed steps for overcoming

regulatory issues which affect the sustainability and expansion of DHC systems. From this, we see that their input can contribute to a better understanding of how to align with the regulatory requirements. We underline the significance of communicating with municipalities and DHC firms engaged in relevant ongoing EU-funded projects, as collaboration with them ensures alignment with broader EU initiatives and facilitates knowledge sharing.

4.3. Financiers and investors

Financiers include a variety of stakeholders with possible interests in financing of the district heating projects. They can be financial institutions, national funds, international programmes, local communities, (private) investors and others. They have a direct role by providing a leverage in incentivising and realizing the DHC projects through their funding and investment decisions. It is worth mentioning that a significant portion of DHC and neighbourhood building retrofit projects are financed by development banks such as the European Investment Bank (hereinafter: EIB), the European Bank for Reconstruction and Development (hereinafter: EBRD), and national development banks, while the regional commercial banking market is primarily dominated by major groups such as Unicredit, IntesaSanPaolo, Raiffeisen, Erste, OTP, KBC.



The financial institutions comprise institutions on national and international level. On a national level, there are commercial banks and development banks. The commercial banks do have interest in financing the improvements in energy efficiency, but typically require clear outputs, collaterals, technical support and other warranties and securities. The development banks often include DHC improvement projects in their scope of financing, but typically have some framework of conditions for the applicants.

The international financing institutions have financing programmes for projects affecting climate change and energy efficiency. They usually act through local agent, with developed national financing schemes, or issue calls for financing, with more complex procedures.

National funds are usually specialized for supporting energy efficiency, renewable energy and environmental projects; usually, they issue the financing calls, into which the applied projects have to fit.

The international programmes for financing (mostly EU programmes like this one) are focused on specific areas of energy efficiency, so the application of DHC projects is usually complex and requires more partners with expertise. Local communities (cities, municipalities) with present or planned district heating systems usually have clear interest in the effective operation and development of such systems. They can also act as stakeholders in providing the financing for the DHC improvement or development projects.

Financiers can provide valuable feedback on identifying options for subsidies and funding, potential risks and provide feedback on enhancing financial models to support the growth of DHC systems in the REHEATEAST area. The information they have can be highly relevant to other stakeholders, e.g. consumers can benefit from subsidy opportunities which can directly lower energy poverty, while utilities and regulators can better identify funding priorities. As with most things, achieving financial sustainability is essential, emphasizing the role that financiers can have. In many cases, quality DHC projects become unviable due to the lack of targeted financing, despite

clear potential benefits. Well prepared and documented projects are an important prerogative for obtaining the finances. The compliance of development projects with contemporary trends of decarbonization significantly improves the chances for financing.

4.4. Technology suppliers

Technology suppliers comprise a variety of equipment and service providers, like equipment manufacturers, equipment suppliers, designers and service providers. They have a key role in the development and upgrade of DHC systems. They have reliable information on the up-to-date technology available on the market and on the potential benefits of applying such technology.



The technology suppliers can be categorized by the type of provided service, and regarding the part of the district heating and cooling system – production, distribution, and consumption. The production part regards energy sources – boilers, cogeneration, heat pumps, heat recuperation, renewable energy technology (primarily geothermal, solar, heat pumps, biomass), and waste heat recovery are in particular focus. The distribution part of technology is linked to the pipeline system with accompanying equipment. Basically, there are hot water pipelines, steam pipelines, and contemporary district cooling (cold water) systems. This is the most important part of DHC as the vast majority of system losses occurs here, so the technology suppliers have significant impact. In the consumption part, the terminal units of DHC system are regarded – substations, in-building distribution, terminal heating and cooling devices, metering. The equipment suppliers and designers here have also significant impact on system efficiency, as the choice of metering system and equipment within buildings affects the demand-side efficiency.

The insight in evolution of technologies and innovations on the market is of great benefit, as it impacts the DHC system performance. Cutting-edge solutions which include smart-metering devices, energy-efficient heating and cooling systems, and solutions for integrating RES have a high impact on DHC operation efficiency, reliability and reputation.

4.5. Contractors

Construction and engineering companies, maintenance and service providers, and energy infrastructure contractors, fall into the category of contractors. They have vast experience in the design, installation, and operation of DHC. Therefore, their insightful contribution can be used to see what steps to take for effective project execution and timely delivery, as well as information on quality control.



The contractors' scope of activities are the building of the new DHC system, the expansion of the existing one, and the refurbishment/reconstruction of the existing system. The latter can refer to the reconstruction for the reduction of losses, improvement of regulation and control, introduction of new or reconstruction of present energy sources, refurbishment of infrastructure on the consumers/demand side (substations, building pipelines, regulation and metering, etc.). As noted, these can be grouped along the principal parts of a DHC system – production, distribution, and consumption. Often, if a DHC company acts as a larger municipal utility, they have significant construction and engineering capacities, particularly for maintenance and refurbishment activities,

so they can perform large portion of works on their own and outsource what is needed. We highlight that, within the general group identified in the first paragraph of this subchapter, various companies that specialise in REHEATEAST areas of interest can be included (geothermal energy, digital solutions, and waste heat utilisation).

Because of their experience in installing of different components of DHC systems, they can have new ideas for construction methods and engineering solutions. Their hands-on experience can encourage knowledge sharing and innovation. The contemporary efforts towards introduction of renewables, heat pumps, district cooling development and other alternative decarbonization measures, which is the objective of REHEATEAST, shifts focus to contractors which have capabilities and experience with these technologies.

4.6. Consumers

Consumers comprise residential households, commercial businesses, DHC residents, industrial heat consumers, municipal institutions. As the end-users of DHC systems, they can provide information on their needs, expectations and concerns. Their feedback can be of benefit to DHC providers, so that they are able to improve the service and satisfaction of consumers. From the consumers' point of view, the project activities and deliverables can be of benefit for them as they enable the consumers to make informed decisions and adopt energy-conscious behaviours. Moreover, consumers have a key role in demand-side actions and in facilitating future large scale building retrofit programs. Traditional reluctance of DHC companies to embrace deep building retrofits underscores the need for such initiatives.



Apart from the general classification, the consumers can be grouped by the energy carrier of the network supply – hot water, steam, and cold water. The hot water is the most present system, in conventional district heating; the steam systems are less present and decreasing, mostly supplying industry and sometimes public facilities (like hospitals); cold water system is still marginally present but increasingly encouraged option in residential district cooling. Also, the steam systems can be used for district cooling if absorption chiller systems are introduced - in principle within cogeneration district heating. Further, consumers can be regarded by district network size – large, centralized networks, or smaller ones based on particular DHC supply. All these features affect the consumer's ability to accept the supply from alternative sources. By increasing consumer awareness of the benefits of DHC systems, REHEATEAST supports the success and increases interest in DHC systems.

4.7. Media

Finally, media has high impact and role in engagement of all mentioned stakeholders. They are represented by news agencies, newspapers, magazines, television, radio stations, online media, etc. Because of their high outreach, they are important in gathering the stakeholders, and raising interest and awareness of the project activities.



By creating positive perception, encouraging public participation, and increasing awareness, the media directly impacts DHC image. They can attract and gather different stakeholders, enabling meaningful interactions. It is important to note that media is essential in influencing public opinion and fostering a favourable atmosphere which is vital for understanding the benefits and therefore the successful implementation of DHC initiatives. They can be used to distribute materials and deliverables of the project, but also to gain concrete inputs from other stakeholders (e.g. to reach consumers who would fill out the surveys that are planned in the subsequent project stages).

To conclude, engaging with diverse stakeholder groups listed above requires an approach tailored to each group's unique interests and concerns. **Each group has their priorities and concerns**, some of which include efficiency, cost-effectiveness, reliability, RES integration, financial viability, sustainability etc. Strategies to address these diverse perspectives involve clear communication, demonstrating alignment with respective goals, fostering partnerships, and offering solutions that resonate with each stakeholder's specific needs and priorities. Building trust and fostering collaboration among these stakeholders can drive collective action towards sustainable and efficient DHC systems.

The following table summarizes the stakeholder groups identified within the REHEATEAST project relevant for the SO1 goals.

Table 2 Target groups summary

Target group	Potential representatives of the group	Benefits to the project
Heat producers and utilities	<ul style="list-style-type: none"> • Energy companies • Power plants • Industrial facilities • Facilities that use waste heat • Renewable energy producers • Power utilities • Distribution network operators • Fuel and waste heat suppliers 	<ul style="list-style-type: none"> - provide valuable insights into challenges of the DHC systems and identify investment priorities that have the highest potential. - provide information on strategies to improve DHC system performance, maximize energy efficiency, and reduce environmental impact.
Authorities and regulators	<ul style="list-style-type: none"> • Governmental institutions • Municipalities • Regulatory agencies • Environmental protection agencies • Energy market regulators • Regulatory institutions • Organizations monitoring standards • Spatial planners • Local/regional energy agencies 	<ul style="list-style-type: none"> - help identify regulatory obstacles, highlight the most important problems regarding compliance with policies, and provide feedback on the needed steps for overcoming regulatory issues.

Target group	Potential representatives of the group	Benefits to the project
Financiers and investors	<ul style="list-style-type: none"> • Financial institutions • National funds • International programmes • Local communities • Private investors 	– have a direct role by providing a leverage in incentivising and realizing the DHC projects through their funding and investment decisions.
Technology suppliers	<ul style="list-style-type: none"> • Equipment manufacturers • Equipment suppliers • Designers • Service providers 	– have reliable information on the up-to-date technology available on the market and on the potential benefits of applying such technology.
Contractors	<ul style="list-style-type: none"> • Construction and engineering companies • Maintenance and service providers • Energy infrastructure contractors 	– vast experience in the design, installation, and operation of DHC they can help to see what steps to take for effective project execution and timely delivery, as well as information on quality control.
Consumers	<ul style="list-style-type: none"> • Residential households • Commercial businesses • DHC residents • Industrial heat consumers • Municipal institutions 	– inform service improvements, address user needs, and promote energy-conscious behaviours, leading to enhanced satisfaction and adoption of DHC services.
Media	<ul style="list-style-type: none"> • News agencies • Newspapers and magazines • Television • Radio stations • Online media 	– raise awareness, promote public engagement, and foster support for DHC initiatives, contributing to a positive perception and facilitating stakeholder engagement.

5. Communication tools and channels

This chapter outlines some of the methods for effective communication and cooperation with stakeholders. It is important to highlight that **this chapter is designed to fulfil the objectives outlined in D.1.1.4** Knowledge sharing and engagement tools/channels. This chapter **directly aligns with the goals of that task**, aiming to establish the necessary technical conditions for engaging stakeholders, addressing their concerns, and disseminating information and knowledge among partners. In the following are some of the channels relevant for SO1 activities.

5.1. E-mail

Email is an efficient communication tool which allows partners to leverage their existing contacts and engage stakeholders effectively. Partners can utilize their already established networks to reach out to stakeholders, but also to disseminate project updates and get feedback. With its widespread accessibility, partners can foster meaningful dialogue, collaboration, and cooperation with stakeholders.



5.2. Online and in person meetings

Project partners can organise in-person or online meetings on platforms such as Zoom or Microsoft Teams to engage with stakeholders. They can also use the opportunity to discuss data collection requirements, project objectives, progress, etc. Before deciding whether to meet online or in person, project partners should consider the goals of the meeting.



In-person meetings are effective for complex decision-making and problem-solving because they allow greater collaboration and more robust conversations. On the other hand, virtual meetings save time and provide limitless collaboration opportunities without geographical and time constraints.

5.3. Focus groups

To collect information, the partners in the project can establish focus groups comprising representatives from relevant institutions to collaborate on data gap identification.

Focus groups share much in common with less structured interviews, the key difference being that the goal is to collect data from several participants



simultaneously. Focus groups are one of the popular data collection instruments when a series of one-on-one interviews proves to be time-consuming or difficult to schedule.

Moving on to the next group of channels, in the following are identified three digital tools: maps, videos and gamification. Within REHEATEAST, the partners consider promoting effective, easy-to-use, already available digital tools to facilitate awareness raising, decision-making, risk reduction, etc.

5.4. Maps

Maps serve as a powerful tool for visualizing data and insights related to DHC systems. Rather than developing new maps, the consortium can leverage existing services, equipment, or software solutions, including those developed through other EU-funded projects.



In the scope of other projects, various interactive tools have been developed. By promoting these existing maps, the consortium can provide stakeholders with valuable insights into the distribution and density of DHC systems, facilitating informed decision-making and collaboration. In the following are brief descriptions of selected projects and the corresponding maps developed within them, which are relevant to REHEATEAST.

[WEDISTRICT](https://www.wedistrict.eu/interactive-map-share-of-district-heating-and-cooling-across-europe/) is an EU-funded project that aims to demonstrate innovative 100% fossil free heating and cooling solutions for new and existing district heating and cooling systems. On the following link is an interactive map which shows the share of DHC across Europe: <https://www.wedistrict.eu/interactive-map-share-of-district-heating-and-cooling-across-europe/>. Thought it doesn't show the situation in all countries of REHEATEAST project, it still serves well to get a sense for certain areas of interest.

Another good example is the tool developed within [Hotmaps](https://www.hotmaps.eu/map) Project: <https://www.hotmaps.eu/map>. This open-source heating/cooling mapping and planning toolbox offers default data for EU28 member states at both national and local levels. It is tailored to assist public authorities, energy agencies, and planners, the toolbox aids in strategic heating and cooling planning across different administrative levels, including local, regional, and national ones, in accordance with European Union policies.

These maps can be shared with stakeholder groups during the distribution of the surveys developed within D.1.1.2 (Joint stakeholder survey and analysis methodology), serving as an effective tool for raising awareness.

5.5. Videos

Videos play a vital role in communicating complex concepts and engaging stakeholders in discussions about DHC systems. Rather than creating new videos, the consortium can leverage existing resources that highlight key benefits, challenges, and case studies. Various projects' outputs and platforms provide



valuable insights into the importance of DHC for achieving energy efficiency and sustainability goals. By sharing their informative videos during the communication with stakeholders, the consortium can generate interest and foster dialogue about DHC initiatives in the target regions.

One of the important platforms which has developed various videos on DHC topic is [Euroheat & Power](#). They are committed to promoting sustainable heating and cooling in Europe and beyond: <https://www.youtube.com/@EuroheatonUtube/videos>. They have various educational videos on the topic of DHC on their Youtube channel, as well as webinars and concrete examples of how different cities are utilizing new technologies to increase efficiency of their systems.

Each project partner can choose the videos for dissemination to the respective stakeholder group, especially if they can utilize the ones available in their national languages. This will enable awareness raising and knowledge transfer, given the high language barriers.

5.6. Gamification

Gamification, offers innovative ways to engage stakeholders, gather data, and increase interest in DHC systems. The consortium can promote existing platforms and resources to facilitate interactive experiences for stakeholders. For example, the "Battle of the Buildings" tool, developed by the US Environmental Protection Agency, allows users to simulate energy efficiency improvements in buildings and compare their performance with others.



The final group of communication methods consists of four well-known and explored tools which can be utilized to reach broader audiences, but also to disseminate information to stakeholders effectively. These approaches can be particularly valuable in engaging specific target groups (e.g. consumers). Of course, these tools will be utilised in general communication during the whole project, as described in the communication plan within Specific Objective 3.

5.7. Websites

Each project partner will publish information about the specific activities that are underway in the project, including on their websites (done by the communication manager). For example, this can be a useful tool for disseminating the surveys and their results. Of course, this is an addition to the regular updating of the project on each partner's website with news and activities related to the whole project.



5.8. Social media

The project will use social networks to increase impact and create a direct communication channel that enables interaction with target groups. Social networks such as LinkedIn, Facebook, X etc. can be a powerful tool to attract the professionals but also consumers to participate in project activities and promoting the project.



5.9. Media/Press releases

Media/press releases can be another outlet to promote the deliverables that are underway or are to be disseminated. The media can draw public's attention, so the main developments in the REHEATEAST project will be published on partner websites and available to the public, including media. In addition, project partners can contact the media specialized in topics related to the DHC systems, where we primarily mean on the print and web media.



5.10. Newsletter

Newsletters will be used as a tool for knowledge sharing and to provide updates on project's development. Effective newsletters will engage, interact, and communicate with stakeholders from various backgrounds, providing accessible information to a diverse audience. The newsletters can be actively disseminated using targeted mailing lists, in conjunction with e-mail (chapter 5.1).



The following table provides summary of this chapter.

Table 3 Communication channels and activities

Communication channels and methods	Activities
E-mail	Initiate contact and utilize already established networks to reach out to stakeholders.
Online and in person meetings	Organise in-person or online meetings on platforms such as Zoom or Microsoft Teams to engage stakeholders and discuss data collection requirements.
Focus groups	Establish working or focus groups comprising representatives from relevant institutions to collaborate on data gap identification.

Communication channels and methods	Activities
Maps	Promote maps developed within other projects to provide valuable insights into distribution and density of DHC systems.
Videos	Promote videos developed within other projects to inform and raise awareness on DHC systems.
Gamification	Promote existing gamification tools such as “Battle of Buildings”.
Websites	Publish information on specific activities that are underway in the project.
Social media	Communicate updates and information of the project on social networks.
Media/Press releases	Send out press releases and communicate in the media to promote the deliverables that are underway or are to be disseminated.
Newsletter	Include news about the project in the newsletters.

6. Challenges and mitigations

There will almost inevitably be obstacles that the project will need to overcome to achieve its goals. Identifying potential obstacles is essential for effective project planning and risk management. It involves conducting a thorough analysis to anticipate challenges hindering the project's success. The sooner these are identified, recognized, and understood, the better, as this will help identify challenges essential for effective project planning and risk management.

Common obstacles may include data collection and quality issues, limited resources, and technical constraints. The challenges listed in the following are some of the potential barriers to consider:

- Language barriers
- Infrastructure and technical support
- Engagement and motivation
- Data privacy and security
- Timely execution
- Incomplete or incorrect information

In the following figure we elaborate in more detail the listed challenges.

Language barriers	Infrastructure and technical support	Engagement and motivation	Data privacy and security	Timely execution	Incomplete or incorrect information
<ul style="list-style-type: none"> • Ensuring work materials are available in advance can help with language issues. Within this project, partners have available budget for translating certain deliverables, so the maximum use of these funds is important to ensure the highest involvement of stakeholders. 	<ul style="list-style-type: none"> • The availability of reliable servers and technical support for online platforms is crucial. Technical issues, such as server downtime or platform glitches can disrupt communication. 	<ul style="list-style-type: none"> • Keeping participants engaged and motivated in online meetings can be challenging, especially if they are not interested or don't know about the topic of DHC systems. Conversation flows are much easier face-to-face. 	<ul style="list-style-type: none"> • Handling sensitive energy-related data in an online environment requires robust data privacy and security measures to protect participants and the integrity of the data. 	<ul style="list-style-type: none"> • Timeliness is crucial. Delays can lead to increased costs or missed opportunities. Setting realistic timelines and ensuring all parties involved are committed to meeting these deadlines is essential. Regular communication and follow-ups can help expedite the process and avoid unnecessary delays. 	<ul style="list-style-type: none"> • Accurate and complete data is crucial for the success of the project. Without it, the results of the project will not be credible.

Figure 2 Potential barriers in communication activities within SO1 of REHEATEAST project

We list potential strategies for mitigation of the risks and challenges effectively in the following:

- Ensure that partners allocate sufficient resources, both in terms of budget and personnel, to effectively address identified risks. Adequate resources are essential for successful risk mitigation.
- Regularly monitoring the progress of risk mitigation efforts and staying vigilant for any new risks that may arise.
- Maintaining open communication channels with all stakeholders, team members, and partners to ensure their engagement and accuracy of the data.
- New risks may emerge, and existing risks may evolve, so staying flexible and responsive is crucial.
- Changes in laws, regulations, or government policies can significantly impact the project. Engaging with industry associations and regulatory bodies can provide valuable insights into potential regulatory changes.

Addressing these obstacles requires planning, collaboration with local stakeholders and a commitment to overcoming challenges to advance the project goals.

7. Conclusion

With this communication plan, REHEATEAST will be able to increase the effect of its actions and greatly improve outreach. The plan enables that **essential messages are properly communicated** to target audiences, improving visibility and understanding of the project's aims and outcomes. It does this by offering a systematic framework for distribution and interaction. REHEATEAST aims to optimize the engagement of stakeholders, promoting more involvement and raising awareness of DHC system benefits along the way.

Going forward, the communication strategy will continue to be a **flexible and dynamic tool**, changing constantly to keep up with the project's requirements and advancement. Insights and lessons gained from current operations will be incorporated into updates and changes, guaranteeing that dissemination strategies align with stakeholder demands. In this way, REHEATEAST remains committed to refining its communication strategies to optimize outreach and effectively convey its vision for sustainable DHC solutions across the Danube region.