

WP7 Strategy Documents

- Deliverable 7.4 Strategy for exploitation
- Deliverable 7.7 Strategy for dissemination
- Deliverable 7.11 Strategy for communication



Report No. D7.4, D7.7, D7.11 / Date: 20/12/2023

Nilsen, B.T, Norderhaug, E.M. S.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957115.

www.enchant-project.eu

ENCHANT Report WP7 Strategy Documents VERSION 02 DATE 20.12.2023

AUTHOR(S) Nilsen, Berit Therese (NTNU SR), Norderhaug, Egil Martin S. (Viken County)

QUALITY ENSURANCE Giuseppe Carrus (ROMA Tre), Guri Bugge (Viken County)

PROJECT NO. 957115 (H2020) NUMBER of PAGES/APPENDICES: 35/0

ABSTRACT

This report is an internal working document for ENCHANT outlining the various dissemination, exploitation and communication activities planned for and executed in the project, as well as coordinating and linking efforts in an encompassing strategy across partners and WPs. To reach ENCHANT's objectives, and collect data informing our research questions, dissemination, exploitation, and communication are core elements. The report serves as a strategic document to coordinate dissemination, exploitation, and communication efforts internally in the project between partners, and externally to relevant audiences. The report is an internal working document for ENCHANT which outlines the different types of activities and initiatives, how they are linked to each other, to the ENCHANT objectives, and research questions.

ISBN N/A CLASSIFICATION: Public CLASSIFICATION THIS PAGE: Public

DOCUMENT HISTORY:

VERSION	DATE	VERSION DESCRIPTION
1	12.12.2023	First version for quality check
2	20.12.2023	Final version delivered to the European Commission

DISCLAIMER

The opinions expressed in this document reflect only the authors' view and reflect in no way the European Commission's opinions. The European Commission is not responsible for any use that may be made of the information it contains.

TABLE OF CONTENTS

1. Intro	oduction	
	1.1 About Enchant	4
	1.2 Responsibility and ownership	6
	1.3 Organisation	7
2. Explo	oitation strategy	
	2.1 Objectives	8
	2.2 Key exploitable results	
	2.2.1 The Enchant Energy Wizard	8
	2.2.2 Key exploitable results	8
	2.3 Potential beneficiaries of Enchant' research results	10
	2.4 Case development descriptions	10
	2.4.1 COMENCR - Commercialization of	
	ENCHANT recommendation system	11
	2.4.2 Innovation Lab act4.energy	11
	2.4.3 The Badenova TestCommunity	12
	2.4.4 Changing work methods in Viken County	12
	2.4.5 EUSEW initiative and energy poverty -	
	Viken County	12
	2.5 IPR Management	12
	2.6 Facilitating for business development	13

	2.7 KPIs	13
	2.7.1 Platform	13
	2.7.2 Energy Wizard	13
	2.7.3 Methods and Collaboration	13
3 Diss	emination strategy	14
5. 0155	3 1 User Partner Network	14
	3.2 Workshops	14
	3.3 Developing and disseminating the Enchant tool	14
	3 4 External events	14
	3.4.1 Conferences and academic dissemination	18
	3.4.2 Involving students	19
	3.4.3 Contact with policymakers	19
	3.4.4 Contact with industry, NGOs, energy experts	21
	3.5. Scientific dissemination	22
	3.5.1 Liaison with related EU-funded projects	23
	3.6 Key Performance Indicators (KPIs)	24
4. Com	imunication strategy	25
	4.1 Introduction	25
	4.2 Enchant from A to Z	25
	4.3 Scientific principles and real-world practicalities	25
	4.3.1 Context specific communication	25
	4.4 Analyses and recommendations	26
	4.4.1 Intervention interviews	26
	4.5 External communication	26
	4.5.1 Stakeholders and target groups	28
	4.5.2 Cooperation and communication with	
	external events	28
	4.5.2 Communication in external events	28
	4.5.3 Policy recommendations	29
	4.5.4 ENCHANTING Tuesday	29
	4.6 Website and social media	30
	4.6.1 Social media	30
	4.6.2 Content production	30
	4.7 Key Performance Indicators	30
	4.8 User partner's and other communication channels	31
	4.9 Internal communication	32
	4.9.1 Filial conference and weblind	33
	4.10 Corporate identity	33 22
	4.10.2 Acknowledge ELL Euroding	23 22
	T.10.2 ACKNOWIEUYE LU FUHUIIIY	23 22
	4 10 4 Distribution of responsibilities	22
	4 10 5 Message and terms	22 24
	4 11 Closing remarks	25
		55

1. INTRODUCTION

This document lays out the dissemination, exploitation, and communication strategies (DEC Strategies in the following) of the ENCHANT project. Its purpose is to coordinate ENCHANT DEC activities to strengthen the overall impact of the project and ensure a quick and widespread uptake of its results.

The DEC Strategies are structured as follows. Starting with the definition of ENCHANT DEC objectives the DEC Strategies document defines the overall approach to project exploitation, dissemination, and communication. It further specifies the project's target audiences and identifies key messages to be conveyed to them. It continues by describing ENCHANT tactics, including exploitation and dissemination activities to be conducted and communication channels to be used. Finally, it outlines partners' roles in the implementation of DEC activities, introduces related KPIs and explains the procedures for their monitoring and evaluation. The structure in the report follows the order of deliverables, starting with exploitation, before dissemination and at last communication.

The DEC Strategies are developed under Tasks 7.1 and 7.2 (lead by partner NTNU SR), and Task 7.3 (lead by partner Viken) of Work Package 7. It draws on the project's Description of Action and incorporates input from all project partners. The DEC Strategies functions as a living document. This is the third and final update of the document.

1.1 About ENCHANT

The climate pact the new European Commission is driving forward is setting explicit and ambitious goals for deeply decarbonizing European lifestyles and economies. To reach these goals, all means of reducing energy demand need to be fully exploited. This puts the focus on energy efficiency understood as an energy source in its own right as an important pillar of the Energy Transition.

According to Eurostat, private households are responsible for 27% of all primary energy use, not including energy embedded in products and services they consume^{.1} This makes energy efficiency improvements in households an important target for interventions. An intervention can be understood as an act designed to affect and change peoples' behaviour. Behavioural science has made great progress in developing intervention tools and programmes to improve energy efficiency in this sector, but nearly all of the studies in this area are based on small-scale pilot studies. To have a measurable effect on the European scale, the applicability of such programs in real-life, cost-efficient, and practical settings is still an open issue. The most important question to answer is which (combination of) intervention tools are the most effective one to be implemented by which societal actor and in which

cultural context. This is the knowledge gap addressed by ENCHANT.

ENCHANT has contributed to reducing GHG emissions by applying existing knowledge of interventions to increase energy efficiency in European households by implementing these interventions on an unprecedented scale and pace, thereby bridging the gap from knowledge to impact.²

ENCHANT used a Randomized Control Trial (RCT) approach. Interventions have been developed, fitted, and tested with the objective to unlock the energy efficiency potential in the general public, through behavioural change. By including a large group of user partners (energy providers, municipalities, environmental organizations), ENCHANT provided the interventions through existing communication channels and thereby tested their effects in real life. Through a systematic evaluation of data gathered from this testing, in combination with re-analysing already existing data, ENCHANT designed an empirically informed decision tool for impactful energy-efficiency campaign design, relevant for a number of actors, like policymakers, municipalities, NGOs, and energy providers.

ENCHANT is a project within the Horizon 2020-program. Projects that are funded by the EU must comply with EU directives on information, communication, and the principle of openness. In line with this, the directives issued by Horizon 2020 regarding communication and information have been followed.

Use of terms:

- The name of the **European Union** should always be spelled out in full.
- We use the term **consortium** for the formal partners that make up the project ENCHANT.
- We use the term **Coordinator**, which is NTNU.
- We use the terms **project owner** or **national coordinator**.
- Within the project, the various parts are called Work Package /WP and the person in charge is called the WP-leader.
- Within the project, the term **task** is used for the various tasks in the project. The person in charge is called the **task leader**.
- We use the term **partner** for participating academic institutions, companies, municipalities, counties, and organizations in the project.
- We use the term **academic partner** for the academic/research partners, and user partner for the non-academic partners in the consortium.



Figure 1 Core concept of ENCHANT

ENCHANT is contributing to reducing GHG emissions by applying existing knowledge of interventions to increase energy efficiency in European households by implementing these interventions on an unprecedented scale and pace, thereby bridging the gap from knowledge to impact.

1.2 RESPONSIBILITY AND OWNERSHIP

NTNU is coordinator and the following partners are participating in the project:

User partners:

- Viken fylkeskommune Norway
- Naturvernforbundet Norway
- Izmir Metropolitan Municipality Türkiye
- Gediz Elektrik Perakende Satis AS Türkiye
- Energie Kompass Austria
- Fondazione Roffredo Caetani Italy
- Energia Positiva Italy
- Electrica Romania
- Cluj-Napoca Municipality Romania
- Asociatia Centrul pentru Studiul Democratiei
 Romania
- Badenova Germany

Academic partners:

- NTNU Norway
- Roma Tre University Italy
- Izmir University of Economics Türkiye
- Babes-Bolyai-University Romania
- Energy Institute at the Johannes Kepler University Linz - Austria
- Smart Innovation Norway Norway
- NTNU Social Research Norway

All partners, user partners as well as academic partners in the consortium, have participated in research activities, where ENCHANT's user partners have been responsible for communicating the interventions in the project.



Figure 2 Partners in Enchant.

1.3 ORGANISATION

The project was organized in four phases, and seven work packages.

Phase I: Developing

The first phase was concerned with identifying and developing the interventions. It comprised WP2 and WP3. WP2 identified key factors affecting intervention impact on energy behaviour. It also designed the intervention packages and defined the main independent variables. Input from WP3 informed WP2 by making an inventory of all relevant datasets in addition to conducting a data review to inform the intervention packages and the pilot implementation.

Phase II: Testing and implementing

The second phase was about testing and implementing the intervention packages. WP4 implemented the intervention packages developed in WPs 2 and 3. In doing so, the intervention packages were fine-tuned with the development of operational plans and establishment of monitoring mechanisms for impact assessment.

Phase III: Evaluating

Phase three of ENCHANT concerned evaluating the interventions implemented in WP4. WP5 established KPIs related to the impact categories. It further assessed the impact of the tested interventions, as well as their replicability, up-scalability, and their limitations. It also identified barriers and success factors for the transfer of best practice.

Phase IV: Utilising and disseminating

The last phase of the project's primary concern was with the dissemination of findings and with developing an instrument matrix/tool.



Figure 3 Project organisation

2. EXPLOITATION STRATEGY

Doing trials on such a large scale and under real life conditions has rarely been done, and it places ENCHANT at the forefront of research. This means the project has produced novel empirical and analytical results highly suitable for exploitation.

The development of a detailed exploitation and business plan, as well as exploitation-dependent dissemination activities, has protected the exploitation interest of all 18 partners. Each partner contributed with their own knowledge and had a specific role in the development and further exploitation of the results of the ENCHANT project.

In the final phase of the project, the exploitation plan of this project has advanced to a stage in which the knowledge generated in the project might be exploited at a large scale by the project participants themselves and is likely to be attractive for other entities outside the consortium.

2.1. Objectives

This section provides insight into the steps that were taken to develop the strategy for the exploitation of ENCHANT' results, and the general premises for exploitation of results. In addition, several concrete examples of how the design of the project as well as the results have already been exploited, are presented. The exploitation plan furthermore identifies the key exploitable results (ER) and the potential beneficiaries, determines the business strategies, and analyses associated IPR issues, as well as potential risks.

2.2. Key exploitable results

The ENCHANT project has produced a number of results, and the key exploitable results are those which, 1) can formally be utilized on the basis of the consortium agreement of the project, and 2) the consortium sees a potential for exploitation in. In the proposal stage, the consortium defined a first list of main project results, taking into account the project objectives and expected outcomes. This information constituted the baseline and has been updated throughout the project, according to the research results, the partners' expectations, and contributions.

2.2.1 The ENCHANT Energy Wizard

ENCHANT has developed a proof of concept of an empirically informed decision tool, named the ENCHANT Energy Wizard. The decision tool will support impactful campaign design targeting energy efficiency but can also be used by individuals. Two modes will therefore be available online.

1. Individual mode: This mode can be used by individual end users answering a simplified version of the survey. The tool then matches the person to a previously identified behaviour group. They also get a recommendation of suitable intervention (from those developed in ENCHANT) they may benefit from to reduce their energy consumption.

2. Institution mode: This mode identifies all behaviour groups identified from data from the three countries in ENCHANT used in the data platform (NO, DE, RO). It provides a summary of the best channel for contact and energy consumption profiles to identify the most effect intervention for each behavioural group. An institution can recruit a group of volunteers who can take the individual assessment and report back to their group as identified by the tool. The matched group can then be used in conjunction with the summary statistics to extrapolate intervention results to the volunteers.

The ENCHANT Energy Wizard is useful for easy adaptions and can provide further options for customization that will be made available commercially in the future as per customer interests.

2.2.2 Key exploitable results

ENCHANT's main results rely largely on the data sets and tools generated in the project, as shown in the table underneath. Some of the data can be exploited by the individual user partner but will not be accessible for other parties without explicit consent (please ssee Deliverable 3.4 for details).

Each partner, and the ENCHANT consortium as a whole, has evaluated direct or indirect forms of exploiting the project results. The list underneath presents various pathways for exploiting the results:

Pathways for exploiting results in ENCHANT:

- Scientific publications under the green or gold open access scheme
- Action plans for municipalities, energy companies, and NGOs involved in energy transition strategies
- Develop new and knowledge-based strategies for communication in municipalities, energy companies and NGOs
- Explore new working methods based on intervention-implementations for reaching different target groups
- Data on user preferences and user-centred strategies for utilities and other commercial agents in the energy field
- Broad implementation of the online version of the ENCHANT Energy Wizard
- Applying the ENCHANT Energy Wizard as a commercial opportunity for analysis
- Promotion of the ENCHANT intervention and survey platform for implementation and further development in other projects / implementation of the platform functions in services of energy providers, municipalities, or NGOs.

Category	Project results	ID
Data	Raw data from user partners	ER1
	Survey	ER2
	Interview data	ER3
	Consumption data	ER4
Analytical results	Effect evaluation of interventions/technology/context	ER5
	Demonstrated real life effects	ER6
Tools and	'Light version' of tool	ER7
recommendations	Full version of tool	ER8
	Recommendations of intervention design.	ER9
	Developing user- and academic partners' competence.	ER10
Intervention	Reusable automatized intervention and survey platform	ER11
platform		

In addition to ideas and plans for exploitation, ENCHANT has already produced a range of different results and identified ways in which these can and should be exploited by various partners, and will be presented later in this section

The relevance for the ENCHANT partners and their exploitation plans were discussed in detail during the project general assembly in Linz in May 2022, and lay an important foundation for this work. Here, themes on the topic of exploitation were discussed that were important for the project group, partners, policymakers, NGOs, and companies respectively. Topics of discussion included the type of results the experiment would yield, which results were significant for various actors, and who would be important as targets for interventions.

The group found that different results of the experiments were important to different actors, depending on their particular needs and interests. One of the themes of exploring the exploitation strategy therefore involved deciding who a particular result is relevant to. Consortium partners might be interested in particular results, public authorities and actors might be interested in results that show which factors are relevant to the public, and how various groups respond differently to different measures, while energy companies are interested in which groups of people interventions may work best on, and the various tools they can use. NGOs, on the other hand, might be interested in results that promote their interests.

Further, one may also divide public actors such as policymakers in levels: policymakers on a local level may be interested in other factors than policymakers on a regional or national level may be. Exploitation is about understanding relevance regarding project results.

Another important element discussed is the process of applying theoretical results in experiments to the real world, and the resulting learning process this involves. This means bringing the interventions from theoretical effects on participants in experiments to an actual user in the 'real-world', with all the technologies, logistics, budgets, and infrastructures this calls for. The experience of doing this work is important learning for all involved parties, as it is essential to make interventions work. Thus, not only the concrete energy saving is important, but also the learning coming from this work.







2.3 Potential beneficiaries of ENCHANT research results

One of the main objectives of ENCHANT was to contribute to policymaking, supporting the advance towards the Energy Union and the implementation of the revised Strategic Energy Technology (SET) Plan.

Therefore, policymakers constitute one of the main groups of beneficiaries of ENCHANT. Although ENCHANT has given priority to policy requirements, the project has also addressed other relevant issues such as research, societal and market needs and, thus, its benefits will reach a wider range of stakeholders.

Policymakers:

- European Commission & European Parliament
- National, regional, and local authorities
 - o National SET-Plan representatives
 - o National Regulatory Authorities
 - o EU Regions
 - o Municipalities
- Regulatory Entities/Agencies

Scientific community:

- Energy-related behavioural research community
- Energy economics research community
- Energy research community
- Social science research community

Industrial and commercial community:

- Energy companies
- Distribution System Operators
- Transmission System Operators
- Utilities
- Renewable energy generators
- Media
- Energy saving consulting companies

Public:

- Energy efficiency agencies
- Environmental NGOs
- Energy cooperatives and associations
- Consumer organisations
- Citizens' organisations
- Individual citizens and households

These beneficiaries are also stakeholders and form part of ENCHANT's target audience in terms of dissemination and communication activities, as described in the following chapters.

2.4 Case development descriptions

The ENCHANT project has tested methods and strategies in highly unchartered territories, meeting obstacles and un-known hindrances due to its novel concept. This includes COVID-19 and the energy crisis, but also other factors. Having to overcome these hindrances meant testing new ways of doing things and was sometimes time consuming. The initial plan would therefore not always be followed, and instead new solutions were developed. As we write this report, with only a month left of the project, we also see that the plan for a very structured exploitation has been taken over by widespread spontaneous exploitation-activities from partners in the project before all results have even been presented. Due to their novelty, we have chosen to describe these activities as cases, making them easy to understand as well as replicate for others. As the main results are coming in, we aim for a strategy combining arapid exploitation and uptake of results, with suggestions for future development, either through commercial, public, or academic stakeholders.

Case development descriptions:

- Description of the project exploitation results and their respective potential beneficiaries
 - o Short description of the result
 - o The innovativeness it introduces compared to existing research/solutions/serviceso Description of potential beneficiaries or
 - stakeholders
- Identification of the lead partner and the contributors for each exploitable result: A lead partner will coordinate the exploitation for each individual result, focusing on the identification of the preferred routes for exploitation.
- Partners' expectations: the partners involved in the development of each project result will describe their intended routes for exploitation of those results.

2.4.1 COMENCR - Commercialization of ENCHANT recommendation system

One commercial outcome that is currently being developed by one of the academic partners in ENCHANT, Smart Innovation Norway, is COMENCR - Commercialization of ENCHANT recommendation system.

The project builds upon research and data obtained in ENCHANT when building recommender systems targeted at reducing carbon emissions. The ambition with the project proposal is to further analyse and qualify for commercial application of the recommendation system developed as a Platform as a Service (PaaS) solution. Human behaviour patterns analysed by the tool will aid both individual users and policy administrators interested in summarizing community behaviour. The tool will also be attractive for multiple stakeholders working with products and services intended for a targeted audience, thus having a significant impact in improving market operations and consequently reducing carbon footprint of end users.

The project's ambition is to bring forward the attained results from their current TRL2, where the concept of recommendation system is being formulated, to a TRL5, where the advanced services (PaaS) will be validated in a relevant industrial environment and in collaboration with industrial partners from ENCHANT through Smart Innovation Norway's Energy Market research. The main aim is to expand the generalizability and scalability of the model to real-world use cases.

2.4.2 Innovation Lab act4.energy - a Living Lab Initiative

One project that will develop the ENCHANT platform further that has already received funding from the Austrian Energy and Climate Fund, is the Innovation Lab act4. energy – a Living Lab initiative in Austria, initiated by the user partner Energie Kompass in ENCHANT.

The project "100% renewables real-laboratory cells4.

energy" aims to drive forward the decentralization of the energy system in Austria and implement regionally specific solution components for a 100% renewable energy supply. It will build on the results already achieved in the act4.energy innovation laboratory in the area of regional energy systems and develop them into a coherent approach for regional energy cells.

The innovation region in south-east Austria represents a mix of rural and urban environments typical of Austria, in which renewable energy such as photovoltaics, biomass, wind power and small-scale hydropower is already being used. However, there is still a lack of digital, networked system solutions to turn these regional energy resources into an overall system based on renewables that can become independent of fossil fuels.

This lighthouse project therefore proposes a digital energy cell concept that enables consistent decentralization of the energy system in the three pillars of energy generation, load management and grid system services and can build a future, renewable energy system as networked core units. The energy cell concept is to be tested and validated in 2 prototype cells and implemented as real energy cells in up to 4 sample regions, in which solution components typical of the region can be demonstrated using different technology paths in each case. The aim is to develop concrete solution elements with quantifiable and evaluable results.

In addition, the project acts as a living lab initiative, that sets up and operates experimental environments, creating a framework for innovation that any third party can make use of. The goal is to facilitate and support research and innovation projects in the development and testing of new products, solutions, and services to improve the use of renewable energies within the living lab region that consists of 14 municipalities in southern Austria. The ENCHANT intervention and survey platform will be developed further in this project and integrated into the digital solutions for the living.



2.4.3 The Badenova TestCommunity

Another concrete outcome from participation in the project for one of ENCHANT user partners, Badenova, was the idea and opportunity to get in touch with people interested in energy saving. As an energy supplier, Badenova is interested in issues that concern energy consumption in the private household of customers. They came up with the idea of using the opportunity to build a pool of volunteers who would like to interact with the company. In addition, the Badenova subsidiary BadenCampus is always looking for volunteers to carry out surveys with the relevant target groups as part of its start-up promotion programme. It would be an enormous added value if there was a community that was willing to take part in such surveys on a permanent basis.

The "hansgrohe - Pontos" pilot project was the first step in testing this idea on a small scale. The recurring dialogue with the participants worked well and gave the initial impulse for the direction a corresponding community could take.

At the end of 2021, the "Solar Panel/Electricity Saving Platform" recruitment campaign was advertised by badenova, and the first participants registered to be part of the ENCHANT online energy saving campaign. Due to the delay in the start of this campaign intervention, the volunteers had to be further motivated so that as many as possible would take part in the campaign when it started. This was the start of the TestCommunity. The aim of the TestCommunity is to bring together interested people who want to take part in voluntary surveys and free product tests of innovative products and services relating to the topic of sustainability. Some of the products or services are also part of start-ups that were founded at the BadenCampus. In this way, participants in the TestCommunity can also help young start-ups and SMEs from the region to develop new and innovative products in a customer-centred way and receive exclusive benefits.

In order to recruit participants, the TestCommunity was advertised in Badenova communication channels and its subsidiaries (social media, website, newsletter) as well as in the local press. To kick off the TestCommunity, three lecture series on current topics in the field of energy were organised under the ENCHANT umbrella. This led to further registrations in the TestCommunity.

After the end of the ENCHANT research project, the TestCommunity will be fully integrated into the BadenCampus, its innovation work and start-up support. In the spirit of sustainability, the TestCommunity resource can thus continue to be utilised and the added value for participants and BadenCampus remains. At the same time, the aim of the research project - to raise public awareness of energy efficiency/sustainable lifestyles in private households - will continue to be realised. The targeted further development of the TestCommunity will make it even easier to promote and support start-ups and small and medium-sized enterprises, get innovations off the ground more quickly and successfully shape sustainable, future-proof concepts.

2.4.4 Changing work methods in Viken County

Yet another way of exploiting the knowledge and experiences gained from the project is to apply the knowledge into work practices like Viken County has done. Their participation in ENCHANT has contributed to Viken County municipality changing their approach to how they communicate certain topics and issues. Mimicking the method used in Enchant, Viken also tested the effects of this by communicating in an "Enchanting" way to one part of the county, while using the traditional method for another.

The result was unequivocally positive for the part that utilized the experiences from Enchant. Viken also has plans to use the project's experiences in upcoming and current projects. For instance, they envision using Enchant's Energy Wizard in communicating about the energy needs in the county, as the region needs to restructure its energy balance while mapping the possibilities for producing new renewable energy. Here, the user partner collaborates with a regional energy company and a wind power company, aiming to reach out to politicians and other decision-makers at the national level.

2.4.5 EUSEW initiative and energy poverty - Viken County

This project idea developed from the extensive work done while designing and writing an application to the EU SEW to host a session in the spring of 2023. A core topic planned for the panel discussion was injustice in the energy transition, including energy poverty. Until very recently, there has been very limited research done on energy poverty in Norway, and there is still no agreed upon definition on what energy poverty means in a Norwegian setting.

To address this, Viken county council has entered into a project together with actors such as Fridtjof Nansen Institute and The Central agency for Statistics The project is funded by the Norwegian Research Council.

2.5 IPR management

The Consortium Agreement (CA) established strict rules for the management of IPR and includes all provisions related to the management of IPR including ownership, protection and publication of knowledge, access rights to knowledge and pre-existing expertise as well as questions of confidentiality, liability, and dispute settlement.

In the CA the Partners have identified the background knowledge included and excluded (Attachment 1 of the CA). Section 8 of the CA specifies the general principles governing ownership, transfer, and dissemination of results, whereas Section 9 includes details on access rights.



2.6 Facilitating for business development

So far, ENCHANT has developed a proof of concept rather than a ready-to-use ENCHANT Energy Wizard. This proof of concept forms the basis for potential business development, a topic that has been discussed in the consortium. Particularly at the GA in Linz, the grounds were prepared for business development, and several examples were discussed and concretised. The partners have prepared the grounds for commercial as well as non-commercial exploitation of the ENCHANT data for the last stage of the project.

As previously described, the ENCHANT Energy Wizard was developed and will be presented in a free online version, in addition to the continued work with developing a commercial version (as described in section 2.4.1).

2.7 KPIs

The exploitation KPIs developed throughout the project's lifetime are:

KPIs, exploitation

- Number of exploitable results
- Number of strategies for exploitation
- Number of beneficiaries (made use of the results).
- Number of exploited results realised

2.7.1 Platform

- Several project partners have plans to continue using the platform in their work, possibly as part of the partner's infrastructure.
- The platform is already scheduled for use in new projects, and the project has received numerous feedback indicating that the platform's capability to show the impact of efforts during the campaign was rewarding.
- Some partners see advantages in the platform's

ability to be adjusted and further developed. An idea to connect the platform to an app that motivates residents to, for example, charge their cars at the correct times has been suggested.

- The platform is planned to be used for testing and simulating policy advice and interventions. As Viken transits to a new county organization (Østfold), they plan to use the platform to develop their strategies for implementing energy actions as well as improving the energy parts of the municipal and county SECAPs.
- The platform will be carried on, developed and marketed by the software company that programmed it (NRGsurf) together with members of the ENCHANT consortium (see here for a website describing the platform's potential: https://datainsights.nrgsurf.de/).

2.7.2 Energy Wizard

- Enchants Energy Wizard will be further developed should they receive additional funding
- The non-commercial version of the Wizard will be openly shared and available to all interested parties.
- User partners have plans for utilizing the Wizard in upcoming projects.

2.7.3 Methods and Collaboration

- Experiences from the project have allowed partners to adopt new methods in communication with their target audiences. The usefulness of randomization as a concept for testing effects (as for example done in the platform) has been emphasized by several partners and is now implemented in their daily operations.
- Partners highlight that the project's methods have developed communication strategies that work and are user-centered.
- The project has generated knowledge about markets and how to reach specific target audiences.
- Collaboration between academia and user partners has provided the project with valuable interdisciplinary experience.

3. DISSEMINATION STRATEGY

To reach ENCHANT's main objectives of affecting energy behaviour in a more sustainable direction, a solid strategy for dissemination is critical. The consortium has established a high-level strategy to disseminate the project's findings and to engage stakeholders. This report aims to elaborate further this strategy and documenting its implementation. The dissemination strategy was and will still be implemented after the project end through several subtasks.

3.1 User partner network

The networks formed by the project partners are key for dissemination activities in ENCHANT. Of the 18 partners, seven are academic with individual academic networks that combined span across Europe in a number of disciplines providing insights and cutting-edge scientific knowledge on how to reduce our energy consumption. These networks, both individually, and combined, are actively used when implementing ENCHANT's dissemination strategy.

One of ENCHANT's novelties, however, is the close collaboration not only between the academic partners, but also with the highly skilled and well-connected user partners. The 11 user partners represent skills, knowledge, and experience regarding communicating and disseminating knowledge, information, encouragement to their target groups, and do themselves represent public stakeholders, such as counties and municipalities, member organizations and interest groups, such as NGOs, as well as private actors in the form of energy companies. The user partners are also very well connected, particularly in their local settings, both with other stakeholders in the same category as themselves, and across the public and private sector, including academic institutions.

In combination, therefore, the network is established both locally, regionally, nationally, and internationally, which means ENCHANT has a unique position we have exploited with regard to disseminating our findings and will continue exploiting also after the project ends. ENCHANT had a complex set-up, meaning we gathered insights on a number of arenas in addition to the main objectives that are also useful for other stakeholders. This might include such elements as how to best adapt interventions to various contexts, or establish a trustworthy baseline, to experiences with different kinds of communication channels that others might find useful.

3.2 Workshops

Three types of workshops (WS) were conducted in ENCHANT, and while all three aided the project's dissemination efforts, the Policy design WS particularly targeted dissemination outcomes.

 Steering group and consortium WS: these workshops were organised as internal project activities, and made sure all partners have a shared understanding of methods and deliverables. They followed up the various consortium members in their production and ensured that the project complied with its own Project Management Plan.

 User-partner WS: in WP 2 a series of participatory co-construction workshops were arranged to select and define the ENCHANT intervention matrix. These workshops addressed various types of user-partners to discuss and identify practical implications, main infrastructures and existing or potential policy schemes.

Both the 'Steering group and consortium WS' and the 'User-partner WS' informed the 'Policy design WS', which contributed directly to disseminating findings to policy stakeholders in all seven countries participating in ENCHANT. This workshop was held as a webinar on 7th December 2023. In order to minimize GHG emissions, ENCHANT's workshops were mostly digital or a mix of locals meeting physically and non-locals joining virtually.

3.3 Developing and disseminating ENCHANT tool

For the results from the real-life testing of the various interventions to be available and applicable to other stakeholders and societal actors across Europe, one of the main dissemination results of ENCHANT is an easy-to-use planning tool (WP6). The decision-making tool's basis is an adaptation of a recommender system. A recommender system is a technology based on machine learning identifying patterns within large data sets, matching desired states (in our case substantial changes in energy efficiency) with behavioural or demographic patterns in the population. In this tool, the empirical results were scrutinized to support policymakers, municipalities, NGOs and other collective social units promoting energy efficiency in selecting the most effective campaign design for their specific context and resource situation.

For the purpose of designing the recommender system, the tool transferred data gathered from the work done with designing the intervention packages, re-analysing existing data, implementing and monitoring the pilots, as well as assessing impact and designing policy (WPs 2-5). The system uses an algorithm that is developed and trained (in WP6) and validated by tests in the pilot environment (all in ethical accordance with Deliverable 1.2 Data Management Plan.

3.4 External events

Participation in external events is a core dissemination channel of the ENCHANT project. To register this activity, all project partners regularly updated a shared online spreadsheet, the ENCHANT Impact Tracker, each time they planned to – or had disseminated ENCHANT results on external events.

The following table presents an overview of key events where project partners have presented the project and its findings. It also includes a number of events that will happen after the project ended.

Partner	Events	Date	Where	Audiences
UBB, EFSA, CSD, C-Nm	20 project meetings	October 2020 – Sep- tember 2022	Izmir	Policy makers, indus- try, science
Viken	Tech demonstration	29.10.2020	Fredrikstad	Policy makers (local)
Viken	Klima Østfold committee meeting	01.12.2020	Sarpsborg	Policy makers (local)
Viken	Webinar on How to save energy in agri- culture	08.12.2020	Online	Public
UBB	City Council meetings	2020-2021	Cluj-Npoca	Policy makers (local)
Viken	Webinar on climate communication	15.01.21	Online	Policy makers, orga- nizations, public
IUE	Meeting in Sustaina- ble Urban develop- ment network	February 2021	Izmir	Public
NTNU	Behavioural insights to inform energy po- licy/network meeting	11.02.21	Virual	Policy makers (natio- nal, eu) Science
IUE	SKGA Meeting	22.02.21	Izmir	Science, policy ma- kers (national, local)
IUE	SKGA Meeting	March 2021	Izmir	Science, policy ma- kers (national, local)
IUE, Gediz energy company	Intervention strategy meeting	March 2021	Izmir	Industry
Viken	Klimarådsmøtet - Climate advisory meeting	09.03.2021	Sarpsborg	Policy makers (local)
BDNV	Cooperation Enchant – Green Renovation	08.03.2021	Virual	Industry, public
BDNV	Testing communicati- on Channels-Pontos	12.03.2021	Virual	Industry, public
IUE	SKGA Meeting	September 2021	Izmir	Science, policy ma- kers (national, local)
IUE	Policy maker event	15.03.2021	Izmir	Policy makers, public
Viken	Meeting with muni- cipalities in former Østfold county	04.05.2021	Sarpsborg	Industry, public
Viken	Project presentation	17.06.2021	Hybrid	Industry, public
IEU, Gediz energy company	Intervention strategy meeting	September 2021	Izmir	Industry
BDNV	Participation in Street Festival in Klimaquar- tier Waldsee	2.10.2021	Freiburg im Breisgau	Public, industry, po- licy makers (national, local)
NTNU, NSR, ROMA3	ICEP Conference	5-8.10.2021	Siracusa, Italy	Science

Partner	Events	Date	Where	Audiences
Viken	Mayors in Østfold meeting	20.10.2021	Sarpsborg	Policy makers (local)
Viken	Klima Viken Kick-off event	November 2021	Lillestrøm	Policy makers (local)
UBB	National Reasearch Conference	05.11.2021	Bucharest, Romania	Science
NTNU	LIFE platform mee- ting on New Euro- pean Bauhaus	15-17.11.2021	Brussels / Online	Science
NTNU	Policy and Knowled- ge sharing event for Climate Neutrality projects (CINEA	08.12.2021	Online	Policy makers (EU), Science
CSD	Several ORSE mee- tings	Early 2022	Online and physical	Academics
CSD	Meeting on data pro- tection and free spe- ech - Ceelli institute	28-30.03.2022	Prague	NGOs, Experts, sci- ence
UBB	Subjecte Capitale	03.03.2022	Online	Science
Viken	Klimarådsmøtet – Climate advisory meeting	06.04.2022	Sarpsborg	Policy makers (local)
Roma Tre	PSICAMB Conference	11-14.04.2022	Faro, Portugal	Academics
Viken	Youth Climate Day	19.05.2022	Buskerud	Policy makers (local, national), science, public
UBB	ENTREV days event	25-27.05.2022	Berlin	Energy experts, NGOs
UBB	Kick-off meeting for DO IT SMARTER project	26.05.2022	Hybrid	Policy makers (local), industry, academic, NGO
Viken	Information meeting with Klimapartnere Viken	31.05.2022	Ski	Industry
NTNU	ECEE summer study 202	6-11.06.2022	Hyéres, France	Science, policy ma- kers (local, national, EU), industry, NGO
Viken	Markens grøde – ag- ricultural fair	12.07.2022	Rakkestad	Policy makers (local, national), industry, organizations, public
BDNV	TestCommunity Event: Energy efficiency in private households	21.07.2022	Online	Industry, public
BDNV	Sustainability in SME	23.08.2022	Online	Industry

Partner	Events	Date	Where	Audiences
UBB	Workshop for the ENGA- GER research network	12.09.2022	Helsink	Policy makers (local, EU), Energy experts
BDNV	TestCommunity - Mini-PV	15.09.2022	Breisach	Industry, public
Viken	County meeting with Esto- nian counties	19.09.2022	Drammen	Policy makers (local)
BDNV	Energy efficiency in SME	22.09.2022	Online	Industry
Roma Tre	Italian Association of Psychology Conference	27-30.09.2022	Padua, Italy	Academics
Viken, BDNV	Panel debate on EU sustainable energy week 2022	29.09.22	Brussels	Public
NTNU	International conference on Enviromental Psycho- logy (ICEP)	20-23.06.2023	Aarhus, Denmark	Academics, Policy makers
NTNU	Sustainable Consumption and Research Action Initi- ative Conference	05-08.07.2023	Wageningen, NL	Academics, policy makers, energy sector
Roma Tre	ECP – European Conferen- ce of Psychology 2023	3-6.07.2023	Brighton, UK	Academics, professi- onals
NSR	Energy & Society Confe- rence	06-08.09.2023	Trento, Italy	Academics
EI-JKU	Forum ecology	September 2023	Linz	Policy makers, acade- mics, energy sector
Cluj NM	Energy poverty Observa- tory Roundtable	20.09.2023	Bucharest	Policy makers, public
All partners	ENCHANT Final Conferen- ce	26.09.2023	Trondheim, NO	Academics, NGOs, municipalities
NTNU	Clustering event back to back with Re-Energizing Europe conference	24-25.10.2023	Brussels	Academics, policy makers
NTNU	ePlanet 8th Stakeholder Forum – Scaling up Ener- gy Savings / Covenant of Mayor	30.10.2023	Online	Policy makers, other projects
NTNU	ICEM Conference	14-16.11.2023	Rome, IT	Academics
Roma Tre	BEHAVE conference	28-29.11.2023	Maastricht, BE	Academics, policy makers, energy sector
NTNU, NSR	ENLiT Fair	28-30.11.2023	Paris, France	Policy makers, indus- try
NTNU/NSR	How to get Citizens to Reduce their Energy Con- suption	07.12.2023	Online	Policy makers, indus- try, academics

Partner	Events	Date	Where	Audiences
BDNV	Smart Region Day	08.12.2023	Breisach	Politicians and mayors
Viken	Leveraging local po- licy to drive sustaina- ble behaviour change in cities / Covenant of Mayors	18.12.2023	Online	Policy makers, other projects

3.4.1 Conferences and academic dissemination

At the ICEP 2021 conference, which was arranged by one of ENCHANT's partners, ROMA3, ENCHANT's coordinator at NTNU organised a session called "A focus on energy behaviour of citizens in large interdisciplinary EU projects". In this session, three of ENCHANT's fellow projects from the call, WHY, EVIDENT and NUGDE were invited, and gave presentations. In addition, two presentations were given from the ENCHANT project, one from the coordinator about the project design and experiences from the first year, and one addressing the close collaboration between academic and user partners in the project.

ENCHANT project representatives participated in a symposium during the International Conference on Environmental Psychology in Syracuse, Sicily (October 21), and a LIFE platform meeting on New European Bauhaus (November 21). During these events, topics related to the project were discussed and presented. A panel debate was also held. While it is challenging to estimate the impact this had, the events attracted, among others, around 230 audience members who selfidentified as policymakers, and around 280 actors from industry, business, NGOs.

Representatives from the project also participated in a clustering and policy exchange event by CINEA in which 14 projects were invited, where project findings were discussed with respect to policy implications. At least three EU/international policymakers were present. Another, short clustering event was held back to back with the Re-energizing Europe conference (https://www. becoop-project.eu/wp-content/uploads/RE-energising-Europe-agenda_2023-1.pdf) on 24 October 2023, where ENCHANT was represented by the coordinator. Additionally, in the ECEEE summer study in June 2022, ENCHANT was represented with two events, both of which attracted several policymakers, industry, business, and NGO attendees.

ENCHANT was also present at the ENLIT Europe in Paris, November 2023. In addition to having a stand in the "EU Project Zone", interesting dialogues with other EUfunded projects led to new contacts and ideas. Several of the representatives from these projects for instance signed up for the ENCHANT webinar on December 7th. In addition, coordinator Christian Klöckner participated in a panel debate with six other EU-funded projects. At the conference there were 14 000 attendees, 700 exhibitors, and 500 speakers. The ENLIT Europe offered ENCHANT the opportunity to disseminate to a different kind of audience than we are used to, like representatives from different parts of the energy industry, technology providers and scientific disciplines.

The coordinator of ENCHANT was in 2023 invited as keynote speaker to two conferences: The International Conference on Environmental Psychology, which is one of the biggest conferences in environmental psychology world-wide and was this time hosted in Aarhus, DK, and the first International Conference on Environmental Mindfulness in Rome. He dedicated a large part of both keynote speeches to presenting key findings from the ENCHANT project.

Enchant 10. juni - @







3.4.2 Involving students

From the onset of ENCHANT, students have been involved by several of the academic partners. Some of this involvement has been through teaching, some through assignments and some has been through supervision. So far several student initiatives are completed, and several are planned for the future after the project ends (master student supervision and including findings from ENCHANT in lectures).

In Romania, Babes-Bolyai University is a project partner, and in the Exploitation, Communication and Dissemination Work Package (WP7) an initiative was prepared where students from the university demonstrated their skills and creativity in presenting interesting and relevant cases from the various countries in the project. In short, students from four different courses (journalism, public administration, political science, and PR) at the university collaborated on presenting cases that the project partners provided (culture, language, social media, communication channels, laws, regulations, policy influence, cross-country similarities, and differences etc.). In Italy, Roma Tre undergraduate and graduate students were involved in classes focused on the EN-CHANT themes and more broadly in sustainability-related learning (such as the study course on the UN Agenda 20230), and also helped for the recruitment of participants in the interactive platform.

The work done by the students at Babeş-Bolyai University is presented in the ENCHANT A-Z.

3.4.2 Contact with policy makers

Scientific partners from Izmir University of Economics (IUE) held meetings with the Mayor of Izmir, representatives from the municipality department of climate change and environmental protection, and the Gediz energy company. In the meetings, they discussed the project and started to implement interventions. In total, three meetings were held where interventions were discussed, planned, and executed.. Interventions were implemented on public transportation stations between December 2021 and March 2022.

An internal workshop was also held in February 2022, hosting ten representatives from Izmir University of

Economics and the municipality, where the intervention project strategies and execution were evaluated. It was estimated that around 4.551.000 people were reached by the interventions on ferries, busses, and trams. In total, 4 representatives from municipality and 3 representatives from Gediz energy company collaborated with the IUE team in this meeting.

In Romania, several meetings with the Cluj-Napoca City Council were held from September 2020 until the end of the project. There have been many discussions connected to the project and its progress, as project partners. 27 members of the city council were present during these discussions, which were held in Cluj-Napoca City Hall. The Romanian Observatory of Energy Poverty (ORSE) was established by The Centre for the Study of Democracy, ENCHANT's Romanian user partners, in early 2022. Among other goals, ORSE is focused on developing public policy on energy. ORSE has constantly discussed the progress of the ENCHANT project in its meeting. The group is connected to the Economic and Social Council, and they have connections with 11 policymakers within the energy field, and the Ministry of Energy. This implies that the group is connected to policy makers on local, regional, and country level. ORSE has stated that they intend to recommend to policymakers the policy proposals that come out from ENCHANT.

In May 2022, during the Kick-off meeting of the DO IT SMARTER project, several representatives from Alba Lulia City Hall showed interest in implementing public policies resulting from the ENCHANT project. The meeting hosted several relevant energy stakeholders, attendees from the Norwegian company NX tech, members of Innovation Norway, and two NGOs in the field of energy efficiency. The ENCHANT project was discussed in events held by the ENGAGER research network, one workshop and a conference. The workshop, held in Helsinki 9th-12th of September 2021, hosted three policymakers, 5 energy experts and 3 representatives of the civil society, as well as a climate ambassador from the European Commission. The conference was held in Budapest, Hungary 11th -13th of April 2022, with 15 policymakers, 30 experts, and approximately 15 representatives of the civil society.





In Norway, Viken county held a demonstration of an electric sweeper that could replace fossil fueled variants for Fredrikstad municipality on the 29th of October 2020. Representatives from Viken were also engaged with Klima Østfold, a multilevel governance partnership including municipalities, the county council, and the King's regional representative, concerning measures against climate change. In December 2020, Viken county representatives presented information about ENCHANT during a Klima Østfold's committee meeting, involving three mayors, one deputy mayor and one member of Viken County Government.

In 2021 and 2022, representatives from Viken presented information about the ENCHANT project in the annual meeting for a regional climate advisory group ("Klimarådet"), attended by mayors, deputy mayors, Chief councilors, Climate advisors from a dozen municipalities, and other policy developers.

On the 20th of October 2021 mayors from Østfold were orientated about the project's work and results so far. The direct result of this meeting was increased knowledge about the projects work and status. Later, in November 2021 mayors and administrative representatives from the 51 municipalities in Viken were also given information about the project at the "Klima Viken" kick-off event.

The 31st of May 2022, representatives from Viken informed members of the pentahelix stakeholder task force "Klimapartnere Viken" about ENCHANT's work and status.

Additionally, Viken County arranged a webinar the 15th of January 2021 on climate communication, which was well attended by policy makers. 32 politicians attended

Enchant

20 October · 🚱

the webinar live, while another 75 people watched a recording of the event.

29th of September 2022, Viken county received a visit from Estonia in Drammen city. Viken county has collaborated with the two Estonian counties Lannemaa and Pärnumaa along with several of their municipalities on the development of climate plans. During the visit in Drammen the Estonian delegation received information and training, including a presentation of the ENCHANT project.

On the 29th of September 2022, During the European Sustainable Energy Week 2022, held in Brussels, a representative from Viken county and a representative from Badenova participated in a debate on the inclusion of youth in energy policymaking. During the debate, two concrete policy recommendations stemming from the ENCHANT research were mentioned.

The participation at the ENLIT Europe disseminated findings to policymakers across Europe, and in addition, the ENCHANT Webinar on the 7th of December also had invited and registered policymakers.

Finally, ENCHANT was included in two events organized by the Covenant of Mayors: On 30.10.2023, coordinator Christian Klöckner presented results from ENCHANT in a webinar in the ePlanet-stakeholder forum, which was also recorded and is available through the ENCHANT website. Several city representatives from the network participated and were very interested in our findings. On 18 December 2023, Guri Bugge (Viken county) represented ENCHANT in another Covenant of Mayors webinar and presented findings from the project to a larger forum of policymakers.





3.4.4 Contact with industry, NGOs, energy experts

Two meetings to discuss interventions were held by the project partners Izmir University of Economics team and Gediz energy company in Turkey. The first meeting hosted nine representatives from IUE-team and Gediz Energy company. In this meeting the proposed intervention strategy was reevaluated, following assessments of the feasibility of various intervention types in collaboration between the meeting participants. In the second meeting, in September 2021, the specific strategy was decided. This meeting also included the same participants as the previous meeting. As a result, Information about recommendations for energy saving tips on invoices were spread out to citizens of North Izmir for four months, and three months for the rest of the experiment groups. The project was assessed through a workshop held in January 2022, where it was assessed that approximately 340.000 households were reached. In total 6 representatives of the Gediz energy company were part of the project collaboration.

In Izmir, information about the ENCHANT project was communicated to the public through press releases from the municipality, Gediz energy company and national newspapers after the project's kick off in 2020. Information was also made available online through the ENCHANT project website, as well as being linked to using QR-codes on public transport. Information was also shared on invoices. In addition, the IUE team presented the project through an online meeting organized by the Sustainable Urban Development Network, reaching around 50 participants in February 2021. 15th of March 2021, A policymaker launch event for the metropolitan and district municipalities in Izmir was also organized, which had a regional scale.

From October 2020 to September 2022, 20 meetings were held between Electrica Furnizare SA company and BBU, CSD & Cluj-Napoca's Municipality In Romania. In the meetings the participants discussed the ENCHANT project's progress, results and recommendations, discussions relevant to the policy makers and energy company present.

In Prague, March 2022, the Ceelli Institute held a meeting for NGOs and media representatives, where ENCHANT was exemplified as a model for good practice in data management, and as an example of a HORIZON project with international impact. 5 NGOs and 10 experts were present in this meeting.

Later, in July 2022, a meeting took place in Berlin in the framework of the EUKI - Just Carbon Transition project, where 10 energy efficiency experts from 3 countries -Romania, Poland and Germany were present, as well as 3 relevant energy efficiency NGOs – Center for the Study of Democracy, Adelphi and WISE EUROPE were present. The ENCHANT project was discussed in the ENTREC days, organized by the Energy Transition Research Center, with 4 NGOs and 2 companies in the field of energy development invited. A group of 15 energy experts were part of this discussion. Two lectures were presented online, organized by Badenova company in Germany, aimed at SMEs, promoted via social media channels, and supported by the Klimapartner Oberrhein and several companies from Badenova/BadenCampus. The first lecture, 23rd of august 2022 was on sustainability in SME, attracting 26 participants from SMEs. The second lecture discussed energy efficiency in SMEs in which 20 participated. This lecture was held the 22 of September 2022. The events brought more attention to the ENCHANT project in the region and resulted in some applications for the EU platform intervention and the TestCommunity.

In Norway, On the 24th of November 2020, Viken county representatives disseminated information about the project to 14 climate advisors in all municipalities in former Østfold county.

Later, on the 8th of December 2020, Viken county organized a webinar with the title "How to save energy in agriculture". Approx. 70 farmers from Viken attended and ENCHANT was also presented there.

On the 4th of May 2021 representatives from Viken held a meeting with all municipalities in Østfold. On the agenda was an energy saving campaign, and the communication of information about the ENCHANT project. cApproximately 25 Climate advisors and communication advisors from the different municipalities attended the meeting.

On the 17th June 2021 a representative from Viken held a presentation of the project for the climate advisors in Viken county. Approx. 40 people attended the meeting. The presentation was recorded, so more may have seen the recording.

The table below presents key events where project partners plan to present the project and its findings after the project has ended.

Partner	Event	Date	Where	Audiences
NTNU	IAEE international	25- 28.6.2024	lstanbul, TR	Academics,
	conference			policy
				makers,
				energy
				sector
NTNU – Roma Tre	IAPS conference	2- 5.7.2024	Barcelona, ES	Academics,
				policy
				makers,
				energy
				sector

3.5 Scientific dissemination

An important outcome of the ENCHANT project is the dissemination of its results through research articles in international peer-review journals.

The procedure for the preparation of scientific publications is described in several key project documents, including the Grant Agreement, (the Project Handbook D1.1) Data Management Plan (Deliverable 1.4) and these DEC Strategies. A prior notice of any planned scientific publication should be presented to the other project partners before it is submitted (45 days ahead of publication). Any objection to the planned publication should be made in writing to the coordinator and the author at least 15 days before the planned publication. If no one objects, the publication work can proceed as planned. Importantly, all scientific publications resulting from the project must include the acknowledgement of EU funding.

ENCHANT will ensure open access (gold or green open access) to the research results originating from its activities. When possible, project related scientific articles published in peer-reviewed journals will be uploaded on the project website and distributed in the partners' networks. Furthermore, ENCHANT has adhered to the Open Research Data Pilot to disseminate project data, results, and findings, as described in Deliverable 1.2 Data Management Plan: 'The DMP will comply with the open access strategy of H2020 while also ensuring the protection of the involved households' and individuals' data, information, and privacy rights; thereby contributing with Open Research Data wherever possible (...).

Wherever possible, ENCHANT thoroughly complies with the Open Research Data Pilot of the European Commission regarding research data generated by Horizon 2020 projects (see https://www.openaire. eu/what-is-the-open-research-data-pilot). ENCHANT beneficiaries will also check that the metadata of the publications is adequate for EU-funded projects.

The tables below show the already published/submitted papers in academic journals and planned academic papers. As many of the core results were obtained late in the project, many academic papers are still in the writing process and will be finished after the project has ended.

Academic Articles	Academic journal
Vesely, S., Klöckner, C. A., Carrus, G., Tiberio, L., Caffaro, F., Biresselioglu, M. E., & Sinea, A. C. (2022). Norms, prices, and commitment: A comprehensive overview of field expe- riments in the energy domain and treatment effect modera- tors. Frontiers in Psychology, 13.	Frontiers in psychology
Habibi Asgarabad, M., Vesely, S. & Klöckner, C. A. (under review). Exploring the Interplay between Structural Factors, Environmental Concerns, Personal Norm, and Household Electricity Consumption.	Consumption & Society
Habibi Asagarabad, M., Vesely, S., Biresselioglu, M. E., Caffaro, F., Carrus, G., Demir, M. H., Kirchler, B., Kollmann, A., Massullo, C., Tiberio, L. & Klöckner, C. A. (in press). Pro- moting Electricity Conservation through Behavior Change: A Study Protocol for a Web-Based Multiple-Arm Parallel Randomized Controlled Trial.	Plos One
Caffaro, F., Massullo, C., Carrus, G., Gastaldo, A., & Tiberio, L. (2023). Organisational identification and environmen- tally-relevant behaviours: Insights from an Italian energy cooperative.	Psicologia sociale, 18(3), 383-396.
Klöckner, C., Røyrvik, J., Carrus, G. & Niederkofler, M. (2023). How Do Behavior Science Interventions to Reduce Environmental Impacts Work in The Real World? Research Topic collection launched in 2023 and open for submission until 31-05-2024.	Frontiers in Psychology Environmental Psychology

Planned Academic Articles	Status	Academic journal
Sinea A., Pozsar, H., Liste Munoz L., Nilsen B. T., Tiberio, L, Massullo, C., and Carrus, G. (n.d.). Public evaluation of energy crisis measures. A comparative netnographic study.	In prep. Submission January 2024	Energy Research and Social Science
Tiberio, L., Massullo C., Caffaro, F., & Carrus, G. (n.d.). The persuasive power of nature-based information strate- gies: a field experiment on support to renewable energy production.	In prep. submission Jan/Feb. 2024	Frontiers (section Personality and Soci- al Psychology or section Environmental Psychology)
Nilsen, B. T. (n.d.) User partner experiences from active involvement in distributing interventions in a cross-Eu- ropean Randomised Controlled Trial to affect energy consumption.	In prep. submission Jan/Feb. 2024	Frontiers special issue
Biresselioglu, M. E., and Demir, M. H., (n.d.) Guidelines for Designing and Implementing Effective Behavioral Inter- ventions for Promoting Environmentally Friendly Lifestyles	In prep. submission Jan. 2024	Not yet decided
Caffaro, F., Tiberio, L., Massullo C., Kirchler, B., Kollmann A., & Carrus, G. (n.d.). Unveiling the Power of Social Norms Interventions: Investigating energy savings be- haviour in an Italian energy cooperative	In prep. submission Jan. 2024	Energy Research and Social Science
Sinea, A., Volintiru, C., and Jiglau, G. (n.d.). Differentiated effects on information interventions in online and offline settings in Romania.	In prep. submission Jan. 2024	Energy policy
Fuchs, D., Duetschke, E., Fahy, F., Garzon, J, Klöckner, C. A., & Sahakian, M. (n.d.). Assessing the impact of structu- ral change.	Draft finished, to be submitted in Dec. 2023	Consumption & Society
Klöckner, C. A., Nayum, A., & Vesely, S. (n.d.). The effect of online counselling on energy efficiency retrofit ambiti- ons	In prep. submission Jan. 2024	Frontiers in Environmental Psychology.

•

3.5.1 Liaison with related EU-funded projects

ENCHANT cooperated with fellow EU-funded projects to increase the efficiency of its implementation and dissemination actions. ENCHANT has three sister projects, and the projects communicated and kept each other updated about relevant activities and potential collaboration opportunities. ENCHANT has organized a joint symposium for the ICEP conference in October 2021 with the sister projects (as described in the introduction of 3.4). User partners Viken and Badenova participated in a panel debate on EU sustainable energy week 2022. The coordinator of ENCHANT has joined the scientific advisory board of WHY. ECHANT invited the sister projects to our final conference in September 2023 and also to the ENCHANT webinar – how to get citizens to reduce their energy consumption? on December 7th 2023.

- NUDGE has a mixed approach to consumer analysis and intervention design tasks, and combines surveys and field trials, in scenarios with high potential for energy savings. The trials will test a broad set of behavioural interventions, drawing on nudging techniques, in five different EU member states, in residential, energy communities and school environments. The NUDGE project aims to implement an end-to-end approach by promoting and incentivizing the adoption of behaviourally tested policy interventions at local, regional, national and EU level.
- EVIDENT aims at understanding main drivers of individuals' decision making to support policymaking and will create an analytical framework and a platform for tools and data as support for policy decisions. The project rests on five large use cases, i.e., consumer engagement of more than 100,000 consumers and the analysis of financial literacy as regards consumers' energy efficiency decisionmaking. The cases are analysed in a multi-layer structure that stretches from information gathering to evaluation and policy design. All deliverables will be public, including software, which allows future projects to build on the project's findings.
- WHY will implement causal modelling to analyse quantitatively people's everyday decisions regarding energy consumption and their reactions to interventions. This will result in innovative methodologies for short- and long-term load forecasting which will be benchmarked in different use cases ranging from micro-grid size to international contexts. The project will provide greater insight into household energy consumption and improve energy demand modelling in leading Energy System Models (ESMs). ENCHANT coordinator Christian Klöckner is in the scientific board of the WHY project and contributes to exchange between the projects.

For the SCORAI conference in Wageningen in 2023, ENCHANT participated in a joined session proposal of several EU projects on "Assessing the impact of structural change on sustainability transformations", coordinated by Doris Fuchs (University of Münster, GER). Brussel:

3.6 Key Performance Indicators (KPIs)

Dissemination activities are organised and registered in a number of ways as described earlier in this section. To present these activities in a framework that makes it easier to evaluate the projects efforts, the consortium partners have also developed and agreed upon a set KPIs for dissemination activities, as listed in table 3.

As a measure of potential impact of the KPIs, each activity also registers the estimated number of people reached.

The table has been monitored and updated throughout the project, from the draft in M6 and onwards. The initial KPIs listed here, will be continuously modified, and the number of activities as well as the number of people reached, are listed in the before referred to ENCHANT impact tracker.

KPIs	Number	Number of people reached
Host of major collaboration activities	1	350
Participation in major collaboration	1	300
activities		
Peer reviewed publication	4	-
Conference paper presentation	4	-
Project presentation	1	18 676
Energy experts, actors from Industry and		Approx. 14 500
actors from NGOs reached by		
dissemination efforts		
Policymakers reached by dissemination		15 185
efforts		
Households/individuals from the general		Approx. 12.500.000
public reached through implemented		
interventions		

*The numbers used are statistics from websites, social media, press, newsletters, participants, and audiences.

4. COMMUNICATION STRATEGY

4.1 Introduction

The communication strategy in ENCHANT is framed by the fact that the interventions and research are comprised of communication. Therefore, all communication of the project intentions and interventions must be done on premises set by the Randomized Control Trial method. The project interventions could therefore not be communicated outside of the context of the interventions themselves while the experiments were ongoing, as that would have spoiled the experiments. Communication within and outside of the project has in the first part of the project to a large degree concerned the development of the experiment design and content, which is in line with the project's communication objectives (although, towards the end of the project, communication of results has been increased substantially). To implement the interventions, communication with policymakers, industry actors, NGOs and the public has been necessary to move from the experiment-context to the real world. The communication efforts internally within the project, and externally outwards has therefore been woven together, as interventions have been developed in collaboration with both external and local actors. Therefore, communication cannot be said to be a separate phase of the project, or separate from project partners, but rather, the communication is part of the project development.

4.2 Enchant from A to Z

To effectively disseminate the project results in an engaging and partially innovative manner, we have chosen to produce a digital publication we call "Enchant - From A to Z." The publication is published through ArcGIS StoryMap, providing a variety of options and tools for publication. For the project, it was essential to have a shared "library" of results while maintaining simplicity in terms of modification, alteration, duplication, and publication across different websites. That's Enchant From A to Z. The publication serves as a summary of the project period, covering the key results along with general information about the project and working methods. The publication includes text, photos, maps, animations, videos, and statistics. Direct links can be made to various headings, and duplications can be created to focus on a specific result, partner, or country. "Enchant – From A to Z" can be embedded on any website, allowing partners to present the findings as their own.

Enchant – From A to Z is intended to be a dynamic product and will be updated even after the project period ends. Several partners in the project plan to utilize the publication in upcoming projects and other work. Link: Enchant – From A to Z.

4.3 Scientific principles and the real-world practicalities

During the project it has become clear to us that the lessons learned while developing solutions to implement the interventions are interesting not only for this project, but also for others working with communication, perhaps particularly in transdisciplinary projects. We therefore decided to conduct a series of interviews with representatives from both academic and user partners). In addition, we conducted several interviews in Norway, Italy and Germany with informants from some of the early interventions). As mentioned earlier, events and factors took the project in unplanned directions, where cultural differences were one such factor. The core premise of comparison between populations and countries in ENCHANT made some of these differences troublesome. One part was related to behavior, or how some populations for example do not respond to surveys or panels. Another difference was related to infrastructure, like how some countries do not have energy meters installed or how some parts of a country has water meters, and others do not.

The main focus of the communication efforts has been to translate between the scientific principles and the real-world practicalities. Examples are videos that show how RCT-principles work, what they are, and why it is important that user partners in ENCHANT follow these principles, while implementing interventions. Furthermore, it is crucial that the interventions make sense in the specific context the user partners operate. It is their particular target groups the interventions should reach, by their communication through their existing technologies. As such, user partner contexts operationalize the RCT-principles. Because of the existing focus within the communication strategy, we have developed new KPIs in addition to the more conventional ones focusing on social media channels, newspapers, etc. These are number of households reached by ENCHANT interventions such as electricity bills and information posters.

4.3.1 Context specific communication

Communication internally in ENCHANT has taken place in English. However, since it is a project closely engaging with local populations and stakeholders, there has also been a need for communication in national languages. The communication strategy has considered this and identified key communication products that have been translated to various partner languages. One example is the information sheet explaining the core academic elements of ENCHANT. NSR and VIKEN created a template in English, which the local academic and user partners then translated and distributed. Furthermore, video animations explaining the RCT-principles in an easy and understandable language have been produced, to ensure a common and shared understanding of these principles. ENCHANT has ambitious goals for communication, and this strategy has been an important tool for reaching these goals. A key point is to target communication to various groups while being aware of and sensible to a number of cultural, economic, and political conditions and other context specific elements affecting behaviour. The results are shown through successful implementation of interventions, and the common understanding that our scientific partners, and our user partners have developed. When intervention experiments were completed, the strategy and effort was directed to a larger degree towards external stakeholders and the general public.

4.4 Analyses and recommendations

In addition to describing the work done in communicating interventions we are here also able to include relevant findings from an analysis based on a large international electricity saving campaign in the project. In the ENCHANT intervention platform, participants from European households could embark on a six-week energy saving campaign. An analysis looked at the organisation of recruitment for participants in the six countries and differences in recruitment rates per channel used, type of communicator, and communication features (see also D5.2 for detailed results of this analyses).

4.4.1 Intervention interviews

Norway and Italy conducted a series of qualitative interviews with individuals holding diverse roles and positions related to the interventions that were tested. The interviewees belonged to different categories: some were exposed to interventions, others were part of control groups, and some served as user partners communicating the interventions. The primary aim of these interviews was to delve into their motivations, perspectives, and opinions regarding the interventions. In Norway, twelve telephone interviews were carried out, involving ten males and two females. In Italy, five interviews were conducted online via the Microsoft Teams platform, engaging a total of six participants from various positions, all of whom were male. Several noteworthy findings emerged with potential relevance for future projects, such as aspects related to gender and age. It was observed that recruiting male respondents was notably easier, prompting an interest in exploring gender issues concerning energy efficiency in housing, including their causes and consequences. Another notable observation was the perceived differences in sensitivity and interest among individuals of various ages and generations, as expressed by the informants.

The substantial exposure individuals have to information and recruitment attempts for various user involvement events and research projects is a challenge. Many informants therefore struggled to recall the details of the interventions, often confusing them with other initiatives. Consequently, their ability to articulate motivations or opinions on the intervention content was limited. The recruited informants demonstrated a high level of activity and awareness surrounding energy consumption issues. Financial motivations proved to be more influential than other factors for reducing energy consumption. Many informants had already taken measures to cut down on energy use and enhance energy efficiency in their homes, driven by financial considerations. They showed reluctance to further reduce their energy consumption, feeling that they had already maximized their efforts or that additional steps would impact basic needs or yield minimal effectiveness. Moreover, informants welcome energy counselling and information, provided it comes from a trusted source and is practical and concrete. Conversely, if the sender is not deemed trustworthy, they suspect greenwashing.

4.5 External communication

A success criterion in the project is to aid collaboration and communication across borders and disciplines, between public and private actors, and not least between user partners and their inhabitants, members/visitors and customers. ENCHANT's external communication is divided in two distinguishable parts, communicating the interventions, and more general outreach.

Communication efforts to facilitate interventionimplementation is characterised by using already established communication channels between user partners and recipients (inhabitants, members/visitors, customers). The strategy to ensure this rests on maintaining already establishing routines, in addition to making new ones.

To identify the various communication routes, a threephase approach was outlined.

- Phase 1: Identify relevant stakeholders and potential communication 'landscapes' relevant to ENCHANT, and map target groups and communication platforms for all user partners.
- Phase 2: Choose which intervention-packages and communication channels to apply and communicate the message in a context – and target-group specific way.
- Phase 3: Identify possible and potential channels of feedback from the targeted groups, and recruit responses.

The more general outreach in ENCHANT implies several parallel routes, as some information ought to be shared across partners and to the public, while other information is more context-specific, and is communicated in the local language and to a more targeted audience. The various stakeholder and target groups are described in more detail in the following.

4.5.1 Stakeholders and target groups

At the stage of proposal development, a high-level plan for communication towards identified stakeholders was developed.

To develop the initial plan, WP7 arranged a stakeholder communication workshop already in M2, resulting in a clearer picture of all partners' available channels and resources, as well as the types of interventions and opportunities we have available in the consortium. This data was used by WP 4 to design a dynamic pilot Gantt Chart.

Tools,		=				Examples of Measures
Channels, Measures	tific nunity	itry / nercia	/ irs	c al	8	
	Scien Comr	u na Com n	Policy Make	Gene Pu bli	Press Medi	
Website(s) +	 Image: A second s	~	~	(*)	~	Project website: https://enchant-
Enchant a-z						project.eu/ corporate websites,
						collaboration partners' and EU
						project partners will be used
YouTube	1	~	~	~	~	Animations making core elements
channel						and concepts in the project more
						available for various groups
Press	~	~		(🗸)	~	- Launch of Project start
releases,						- On the occasion of important
News						project's events/news/milestones
releases						
(online)						
Press					~	Conjunct with press conferences, on
interview						request
Twitter					~	To reach influencers (journalists,
account						bloggers, multiplying testimonials),
						tweets of and into conferences
Online	1	1				Project newsletters (15 newsletters
Newsletter						sent out to an audience of up to 10
						200 people)
Promo	(~)	~				For conferences, workshops, etc.
poster						
Policy Briefs			~			Policy briefs produced through
(as part of						research results
the A-Z)						

Figure 4 Measures of dissemination and communication

4.5.1 Cooperation and communication with external projects

As presented in section 3.1, ENCHANT's user partners already have an extensive network, and are involved in many energy saving initiatives and planned activities. To avoid duplications and potential contradictions in communication surrounding activities and interventions, ENCHANT cooperated and coordinated its activities with other projects and initiatives with similar aims. ENCHANT has regularly communicated with other projects and initiatives, such as the EU-funded sister-projects presented earlier, but also related projects our user partners are engaged in.

For our final seminar, we chose both the dates and the venue to facilitate cooperation with and participation at the sustainability conference "Beyond crisis/Beyond normal" organised by the NTNU Energy Team Society. This made travelling more worthwhile for our partners, as well as gave the second, and open part of the final seminar a potential external audience. Meetings, cooperation, and communication with external projects, are all listed in the ENCHANT impact tracker covering activities through the whole project. Partners were reminded to update the sheet every month, and before deliverables are due, regardless of which WP it is input for.

One example of cooperation and communication with external projects was initiated by Viken user-partner, where NSR and the FME (Centre for Environment-friendly Energy Research) INCLUDE³ and the application Ducky⁴ were coupled with ENCHANT.

On the 12th of August 2022, Viken representatives also presented information about various projects on a local agriculture fair ("Markens Grøde"), reaching both public, industry and policy makers. Politicians, industry leaders, and the minister for food and agriculture in Norway were present. ENCHANT had one slide running continuously on a screen at the venue, increasing the visibility and awareness of the project to the around 9000 participants at the fair.

4.5.2 Communication in external events

Important communication and dissemination results of the ENCHANT project came from internal collaboration between partners and stakeholders in the project, and their professional networks. They were invaluable to the project communication and dissemination, as well as a motor for local initiative in engaging public, industry, and policymakers on the topic of climate change and climate-friendly alternatives. Such communication and dissemination happened largely through meetings, seminars, conferences, webinars, lectures, poster, flyers, showcases and, most importantly, by developing and implementing the ENCHANT interventions following RCTprinciples.

Below are examples how this has happened in practice and how it effectuated policy recommendations and included perspectives from industry, public, science, and politics. When it comes to contact with the public in Romania, collaboration between Cluj-Napoca Municipality, UBB and the Untold music festival led to much outreach to the public via newsletters, website presentation, and videos of The Green Friday intervention, which was shown on the Untold music festival. Posters of the Green Friday intervention were also put up in Cluj-Napoca. Additionally, the Electrica Furnizare company disseminated 6 newsletters to its pilot users, and e-mails were sent through the BBU. It has been assessed that up to 1.8 million have potentially been reached by these efforts.

During the turn of the year of 2021/2022, ENCHANT got permission to print advertisements for the preregistration for the EU platform on the billing envelops of two energy suppliers from the region enveloping Cluj-Napoca in Romania. This involved small graphics and a QR-code. The ads resulted in registrations for the intervention platform.

Badenova project partner organized three lectures for private households to engage and keep interest in the project during the summer of 2022. Energy efficiency in private households was discussed in a lecture held online in 21st of July 2022. About 20 people attended the event. On the 25th of august 2022 a lecture the topic of E-mobility was held for around 10 households online. Later, a lecture was held in Breisach for between 35 and 45 private households, on the energy transition. The lectures were promoted via social media channels, supported by companies from the Badenova/ BadenCampus network. Additionally, customers were contacted directly via newsletters of Badenova, informing them about the TestCommunity and planned events. These events brought attention to the ENCHANT project in the region, and resulted in new applications for the TestCommunity, and EU Platform Intervention. In Germany, organized by Badenova, during the winter 2021/2022, a flyer for the EU platform intervention was produced. The flyer was included in private homes' electricity and natural gas statements, leading to 112.750 private customers reached via their energy bills. Two posters were also put up in a family festival in October 2021 in Freiburg, encouraging visitors to access the project landing page via a QR code, but unfortunately with no effect on visits to the webpage.

Through the participation of Viken County Municipality in the Covenant of Mayors, the project was selected to give a presentation at the ePlanet Stakeholders Forum. Project coordinator Christian Klöckner delivered a presentation showcasing findings from Enchant. The project was also highlighted as a good example, specifically featuring Viken County Municipality and the energy advisory campaign, in the Covenant of Mayors' newsletter in October/November 2023. This case will also be published as a "Best practice"-study on the Covenant of Mayors website.

4.5.3 Policy recommendations

The results coming from the project are relevant to policy makers on local, regional, national, and international levels, since results may be used to affect behaviour connected to energy consumption, energy efficiency and energy saving on all these levels. The situation today, which connects energy behaviour to international security politics, and questions of energypoverty and -justice, makes the results important for policy, and to understand how energy interventions work in real life. Therefore, ENCHANT policy recommendations target policymakers on local, regional, national, and international levels, by building on the networks already established during the implementation of interventions. Through these efforts we aim for that the results of the research coming from ENCHANT should affect upcoming revisions on the new European Union SET plan. 12 municipalities in Østfold county, members of the multilevel governance partnership Klima Østfold, is considering a revision of their SECAPs, to strengthen the aspects of energy and circular economy. Policy recommendations from Enchant will be a part of this revision.

The various policy recommendations are available in the ENCHANT A-Z.

4.5.4 ENCHANTING Tuesday

It is commonly agreed that Tuesday is the most boring day of the week⁵. In ENCHANT, we made an effort to reduce boredom and increase energy-efficient behaviour through what we call ENCHANTING Tuesday, which was one of the projects main day-to-day communication methods with its audience. The ambition was to publish new "Enchanting" contents related to project findings and topic regularly on Tuesdays – #EnchantingTuesday. The posts were published on Twitter and Facebook, and on the website or on YouTube depending on where they are best suited. The goal was to create a relatable and consistent way of communicating with our target groups – across borders and language barriers.

An example of the communication efforts connected to Enchanting Tuesdays is the informative "Enchantula, the Energy Vampire", which illustrates in a fun and engaging way what sorts of everyday practices and routines one may engage in which drains energy from your home. Illustrations right.











Chef Enchantula - cooking up a storm, eating away at your life savings!

Most appliances with a digital clock are constantly sucking power to keep the time and displays running. Instant one-cup coffee makers are constantly trickling power in order to keep the water hot for your next cup. Group standby-appliances on the same power strip, and shut them down completely when not in use, or at least if you leave your house.

Another tip: When it comes time to replace large appliances, like your refrigerator or dryer, look for low standby products that are Energy-Star certified.

#energy #savepower #energyvampires #enchant #conserveenergy #powerbill #savepowerday
#energyvampire #energyefficiency #savepowerbills

•••

4.6 Website and social media

The website functions as a central place for digital communication to stakeholders and target groups, both internal and external. The purpose is to gather and present relevant information about our findings and to link to other sources of information. On the website, visitors are able to read articles and news, download reports and other documents, find links to partners and other relevant actors. The website has a clear structure and a search function that makes it easy for visitors to find what they are looking for. Towards the end of the project, the ENCHANT A-Z was embedded on the website, making results and recommendations easily available and accessible to all.

We have established a communication working group consisting of one to two representatives from each working partner in addition to the task leader Viken. The address of the website is https://enchant-project.eu/

4.6.1 Social media

The main social media platforms used by the ENCHANT project has been Twitter and Facebook. The Twitter account has been used to promote ENCHANT news, publications, events, and other information relevant to the project and its partners. Consortium partners have been encouraged to use their existing social media accounts to follow, like and share its posts to disseminate them as widely as possible, including in their national languages. When tweeting or referring to the project in other social media, partners have been encouraged to use hashtags #Enchant and mention the project by using @Enchant_eu.

The social media presence was increased to communicate the activities of several of ENCHANTs partners at the ICEP conference. In addition, news stories and #enchanting Tuesdays were shared to reach out to a bigger audience before project results could be communicated. The Twitter account had tweets about the project and where more information could be found, as well as more easy-going content. The ENCHANT twitter account has also been following energy-related relevant accounts. However, due to the more recent changes, we are no longer active on the platform now known as X, and have instead chosen to focus on developing the ENCHANT A-Z, as well as remaining on Facebook (although here also with less activity).

Several channels of communication we do not control are non-the-less potentially relevant for communication in the project. This includes editorial media, like radio, TV, web, publishers, blogs, other organizations, and projects. Social media also represent channels of other stakeholders we do not control. Several media articles have been published around the public through these channels.

For example this article from the Norwegian newspaper

Dagsavisen (https://www.dagsavisen.no/demokraten/ nyheter/2022/01/28/gir-gratis-energiradgivning-tilinnbyggerne-det-er-forst-til-molla-prinsippet-somgjelder/) or this post on Facebook from the Romanian publication Digi24.ro (https:// www.facebook.com/Digi24HD/posts/ pfbid02CPRq2LwsK87GbhrADg7EMa77Vh49P24QTF9dJtF 9dJtFzi3mMmZD3NoSRUbKzRckJ9gWnl)

4.6.1 Content production

Press releases: The project sent out press releases to the media when appropriate. The sender of the press release varies depending on the subject and area. Information about the project (and project and EU logos) are always included. There was especially a lot of activity around the recruitment of participants for the ENCHANT energy saving campaign, and there again especially active in Romania, where press channels with a total of more than 1.5 million targets were used.

Animations: The project uses animations in its communication. Animation is a simple and effective way to get your point across to different target groups. We produce most of the animations in-house. Videos: The project focuses on videos as a way to get in touch with target groups. Short and catchy videos work especially well on social media. The project also uses videos as a way to unite the work done across borders and show the true scale of the project.

Reports and other written deliverables: Reports and other written deliverables are produced in a set template with the EU-funding and Enchant-logo visible.

4.7 Key performance indicators

Communication activities were organised in a number of different ways and were as described earlier a core activity in ENCHANT. To present activities related to external communication in a framework that makes it easier to evaluate the projects efforts, all consortium partners have contributed to developing a list of target groups, communication channels, purpose of communication and messaging. This extensive overview was created in the workshop described in the next section, which formed the basis for developing the set of KPIs for communication activities. As a measure of potential impact of the KPIs, each activity also registered the estimated number of people reached. In addition, we kept track of internal communication in the ENCHANT Impact Tracker. We monitored and updated outreach of the project.

It is challenging to estimate the outreach of communication efforts through such a wide variety of forms, formats, and media that have been implemented up to this point in the project. However, of the numbers we have available we can estimate that project communication, in collaboration with internal and external partners has reached at least 12.5 million members of the public sphere, which includes households, and efforts through festivals, events, interventions on public transportation and others. Up to 29 400 policymakers, and closer to 14 500 representatives from companies, NGOs and energy experts were reached.

While the project communication and dissemination efforts through collaboration have reached a substantial amount of people within the sphere of the public, industry, and policymakers, more common communication platforms such as Twitter, Facebook and news media outlets, numbers are difficult to estimate.

KPIs, stakeholders reached	Number of Stakeholders reached
Policymakers	29 360
Platform	Approx. 6.230.000
All interventions	12.535.074
Media coverage	1.572.848
Social Media	Approx. 2.900.000

4.7 User partner's and other communication channels

User partners' communication channels were and still are actively used, and a record is kept in the ENCHANT impact tracker. The following textbox presents a list of the partners' internal communication channels.

Partner	Internal communication channels					
NTNU	Gemini (www.gemini.no), which publishes short articles about resea					
	<u>projects</u>					
	Extraction for the second seco					
	short communications about Norwegian research					
IUE	IUE website (www.ieu.edu.tr); intranet; E-mail list communication					
	dedicated to Energy Studies					
EI	LinkedIn and Twitter page have been used.					
ROMA3	Website "Roma Tre Sostenibile" - Website created in occasion of the 2015					
	Milan Expo, is kept active also after the Expo to disseminate and					
	communicate sustainability issues (<u>http://expo.uniroma3.it/</u>)					
UBB	Website of the university <u>www.ubbcluj.ro;</u>					
SIN	AI cluster (https://www.smartinnovationnorway.com/aiklynge/), which					
	currently involves 44 partners from business, public sector and academia.					
	It is a hub for capturing digital technologies development in operational					
	improvement, efficiency and product, and service development.					
NSR	NSR website (https://samforsk.no); intranet; podcast series					
VIKEN	Viken website (www.viken.no) , Klima Østfold website					
	(<u>www.klimaostfold.no</u>), Social media (Facebook, YouTube, Instagram, X),					
	other networks/projects.					

4.9 Internal communication

The strategy for internal communication is based on a principle of sharing information amongst all partners, academic as well as user partners. This regards the research set-up, including interventions, biases, and RCT-methods, as well as the user partners' knowledge and experiences of interventions, use of communication channels and their knowledge of the target-groups' anticipated reactions and potential biases.

All project partners should not only be aware of but should also be active contributors to the communication strategy and efforts, as well as the planned activities. An important resource of information and communication between partners in the project are regular meetings, both within each WP and across WPs, within each country and across countries.

Meetings	Lead orga- nizer	Participants	Date	Place
General Assemblies:	NTNU	All partners		
1st General Assembly	NTNU	All partners	21-23 Oct 2020	Virtual
2nd General Assembly	NTNU	All partners	23-24 Feb 2022	Virtual
3rd General Assembly	NTNU/EI-JKU	All partners	19-20 May 2022	Linz, Austria
4th General Assembly	NTNU	All partners	12-13 Dec 2022	Virtual
5th General Assembly	NTNU/FONDA	All partners	1-2 Mar 2023	Ninfa Gardens, Italy
Final conference and 6th General Assembly	NTNU	All partners	26 Sept 2023	Trondheim, Norway
Steering group meetings:				
Virtual half year meeting	NTNU	Steering Committee	23 Oct 2020	Virtual
Virtual half year meeting	NTNU	Steering Committee	21 Apr 2021	Virtual
Virtual half year meeting	NTNU	Steering Committee	20 Oct 2021	Virtual
Virtual half year meeting	NTNU	Steering Committee	24 Feb 2022	Virtual
Half year meeting	NTNU	Steering Committee	20 May 2022	Linz, Austria
Virtual half year meeting	NTNU	Steering Committee	13 Dec 2022	Virtual
Half year meeting	NTNU	Steering Committee	02 Mar 2023	Ninfa Gardens, Italy
Work meetings:				
Monthly WP Leader meetings (virtual)	NTNU	WP leader group	Every second Wed- nesday in a month	Virtual
EU review meeting 1/2	NTNU	WP leaders & EC	23/24 Jun 2022	Brussels
EU review meeting 2/2	NTNU	WP leaders & EC	March 2024	Brussels
Internal workshops:				
WP1 workshops	NTNU	All partners	21-23 Oct 2020	Virtual
WP7 workshops	NSR	All partners	11 Dec 2020	Virtual
WP2 workshops	ROMA3	Academic partners	8 March 2021	Virtual
WP 5 workshops	EI-JKU	All partners	18 oct 2021	Virtual
WP4 workshops	IUE	Academic and industry	January 2022	Virtual
WP4 workshops	IUE	Academic and industry	February 2022	Virtual
WP6 workshops	SIN	Academic partners	March 2022	Halden, Norway
WP1 workshops	NTNU	Academic and industry	May 2022	Virtual

4.9.1 Final conference and webinar

The Enchant project hosted a highly successful and insightful final conference on the 26th of September in Trondheim. The event brought together researchers, industry experts, fellow projects, and stakeholders to discuss and showcase the projects results, share knowledge, and lead the way on how Europe can reduce its energy consumption.

The conference, held at the venue DIGS in Trondheim, featured a diverse range of speakers and topics, encompassing Europe's need to tackle the energy crisis. The platform developed in ENCHANT were also presented and discussed, and SIN gave a presentation of the ENCHANT Energy Wizard. The wizard will aid individuals in making sustainable behavioural changes and inform organisations on how to make informed choices when communicating about energy consumption to inhabitants, customers, and members of organisations. The conference gave the partners a rare opportunity to physically meet each other and discuss findings and ideas. The last part of the day was also open for people outside the consortium.

Enchants final conference did not only provide a platform for sharing knowledge but also paved the way for continued collaboration and action on the important topics discussed. Our commitment to reducing energy consumption remains, and we look forward to future endeavours in these areas.

On December 7, 2023, ENCHANT hosted a final webinar presenting key findings and policy recommendations from all its activities. About 130 people registered for the webinar with a good blend of researchers, policymakers, NGOs, and energy professionals. The webinar concluded with inviting participants to sign up for future collaboration. This initiative is taken further by one of ENCHANT's commercial collaborative partners.

4.10 Corporate identity

The project brings together project partners from all over Europe under the name ENCHANT. ENCHANT is a project, consisting of independent entities of a great variety, including organisations, universities, commercial companies, research institutes and NGOs. To communicate both the diversity and what unites us, we have developed a version of a "corporate identity".

4.10.1 Layour, logos, and guidelines

The project's logo has been used on internal and external material, combined with the EU-funding logo. In the work of developing a website for the project, a colour, form, and visual language was developed that supports the partners in the projects in their own communication. To clearly communicate that ENCHANT is not its own "brand" or organization, this is combined with the partners own graphic profiles.

4.10.2 Acknowledge EU Funding:

As a beneficiary of funding from Horizon 2020, one of

ENCHANT's legal obligations is to acknowledge European Union funding and display the European Union emblem in all its information and communication material. That Horizon 2020 finances the project will be communicated throughout the project.

4.10.3 Basic rules for layout:

- The minimum height of the European Union emblem shall be 1 cm.
- The name of the European Union shall always be spelled out in full in the recognition of funding.
- The typeface to be used in conjunction with the European Union emblem can be any of the following: Arial, Calibri, Garamond, Trebuchet, Tahoma, Verdana.
- Italic and underlined variations and the use of font effects are not allowed.
- The positioning of the text in relation to the EU emblem is not prescribed in any particular way but the text should not interfere with the emblem in any way.
- The font size used should be proportionate to the size of the emblem.
- The colour of the font should be reflex blue (same blue colour as the EU flag), black or white depending on the background.

We have developed guidelines for publicity and logo use, as well as templates for reports and presentations. By encouraging all partners consequently to employ project-templates and logos, these rules were more likely to be followed. The templates all include a project-logo, a joint EU-logo and disclaimer for use. Guidelines, templates, and logos are accessible for all project partners on the Teams-site (Enchant/WP7/Enchant_logos-templates) used for internal communication, sharing files and documents, as well as arranging digital meetings.

4.10.4 Distribution of responsibilities

All partners of the consortium actively contributed to dissemination and communication activities and will continue to do that also after the project ends.

- Identify and promote opportunities (e.g., scientific events, publications, etc.);
- Provide updates on their research achievements to ensure visibility on the project website and social media channels;
- Disseminate and communicate project information through their contacts within networks;
- Present the project at relevant conferences, workshops, and other events;

The project coordinator is the central contact point for internal communication, while WP7 leader NTNU SR coordinates external communication and dissemination.

4.10.5 Message and terms

The relatively complex research setup, the many user-partner, and their central role, means we have to be thorough and consistent in our communication. This implies defining, explaining, and communicating concepts like 'intervention', 'bias', 'randomised control trial' and others.

The written versions are accompanied by illustrations and examples of various expressions. We have also made an animation explaining RCT (https://enchantproject.eu/news/what-is-a-randomized-control-trial/). Where needed, we have and will translate content to the individual country's language.

4.11 Closing remarks

As mentioned in the introduction of this deliverable, both academic and user partners are involved in all aspects of the work that is done in ENCHANT. In WP7, one of ENCHANT's user partners also have responsibility for task 7.3 Communication.

The user partner Viken County Municipality has participated in the project with one climate advisor and one communication advisor, in addition to connecting the project to other relevant projects, partnerships and political processes.

The multilevel governance and multi stakeholder partnerships of Klima Østfold, Klima Viken, Klimapartnere, and

Klimasmart Landbruk, have been central in providing communication channels towards a wide range of stakeholders, and funding implementing energy measures.

From the onset of the project, it was important for Viken to be an active and engaged partner. As a user partner in various projects, the county municipality always aims to contribute to learning and development. Viken has experience from numerous EU projects, and expertise in various fields, such as journalistic experience from both print and television, and knowledge and experience regarding all aspects of communication. Tabloid thinking has challenged the academic environment while also allowing the project to reach a broad audience. Viken aimed to participate in the project to take its climate communication one step further, and feedback iproject shows that they have achieved this with good results.

Throughout the project period, Viken County Municipality has contributed to communication in various ways and areas. As a user partner, they have contributed to external communication through the two interventions and worked in WP7 on both internal and external project communication. Viken has disseminated information about the project and its various interventions through their channels, as well as through the project's own channels. This includes videos, graphical representations, press releases, news articles, and through webinars/ seminars. They have also conducted numerous presentations for politicians, business leaders, municipal employees, and residents about the project. Viken County Municipality also made significant efforts in recruiting individuals for the Enchant survey, and extensively used the communication channels of the municipalities to recruit participants and communicate interventions and results, benefiting of the whole project.

The collaboration between the other partner responsible for this WP, NTNU Social research, which is one of the academic partners has been very close throughout the project. For the transdisciplinary project that ENCHANT is, both partners believe this has been an advantage in understanding what has been necessary, interesting, and potentially challenging in the communication internally as well as externally. The many interesting discussions, solutions, and adaptations along the way, also lead to a series of interviews to gather these insights as presented in earlier sections.

