GENTE

PROJECT HANDBOOK

Revision 0

SUMMARY

This document describes processes for quality control, risk management, data management and the communications strategy in the GENTE project

Impressum

Internal Reference

Deliverable No.	D 1.2 (2022)
Deliverable Name	GENTE Project Handbook
Lead Participant	HSLU
Work Package No.	1
Task No. & Name	T 1.3
Document (File)	**GENTE-D1.2-Project Handbook-C-R_D0**
Issue (Save) Date	2023-02-03

Document status

	Date	Person(s)	Organisation
Authors	2023-02-03	Ben Bowler	HSLU
Verification by	2023-02-06	Antonios Papaemmanouil	HSLU
Approval by	2023-02-06	Tuan Le	Chalmers

Document sensitivity

X	**Not Sensitive**	Contains only factual or background information; contains no new or additional analysis, recommendations or policy-relevant statements
☐	**Moderately Sensitive**	Contains some analysis or interpretation of results; contains no recommendations or policy-relevant statements
☐	**Sensitive**	Contains analysis or interpretation of results with policy-relevance and/or recommendations or policy-relevant statements
☐	**Highly Sensitive Confidential**	Contains significant analysis or interpretation of results with major policy-relevance or implications, contains extensive recommendations or policy-relevant statements, and/or contain policy-prescriptive statements. This sensitivity requires SB decision.

Disclaimer

The content and views expressed in this material are those of the authors and do not necessarily reflect the views or opinion of the ERA-Net SES initiative. Any reference given does not necessarily imply the endorsement by ERA-Net SES.

About ERA-Net Smart Energy Systems

ERA-Net Smart Energy Systems (ERA-Net SES) is a transnational joint programming platform of 30 national and regional funding partners for initiating co-creation and promoting energy system innovation. The network of owners and managers of national and regional public funding programs along the innovation chain provides a sustainable and service oriented joint programming platform to finance projects in thematic areas like Smart Power Grids, Regional and Local Energy Systems, Heating and Cooling Networks, Digital Energy and Smart Services, etc.

Co-creating with partners that help to understand the needs of relevant stakeholders, we team up with intermediaries to provide an innovation eco-system supporting consortia for research, innovation, technical development, piloting and demonstration activities. These co-operations pave the way towards implementation in real-life environments and market introduction.

Beyond that, ERA-Net SES provides a Knowledge Community, involving key demo projects and experts from all over Europe, to facilitate learning between projects and programs from the local level up to the European level.

www.eranet-smartenergysystems.eu

Table of Contents

List of Tables

1. Introduction

1.1. Purpose and structure of the document

This document sets out the project quality management approach, the risk management plan, the data management plan, and the communication and dissemination plan, for the GENTE project. In combination, these aspects comprise the GENTE 'project handbook'. The handbook is a deliverable in the GENTE project.

The quality management plan includes a description of the overall goals and objectives of the project. It includes a description of the measures that will be put in place to ensure the quality of the research, and project implementation, such as checks on the accuracy and completeness of the work to fulfil project's objectives and expected impacts. This includes the criteria for evaluating the success of the project.

The risk management plan includes a description of the potential risks and hazards associated with the research, as well as the steps that will be taken to mitigate, manage or avoid those risks. In addition, the plan outlines the roles and responsibilities of organisations involved in the research and describes how communication and coordination among those individuals will be managed to ensure that risks are identified and managed effectively.

The data management plan comprises a description of the types of data that will be collected and managed as part of the research, as well as the methods and procedures that will be used to collect, process, and store that data. The roles and responsibilities of individuals involved in the management of the research data are described, and the process for communication and coordination among those individuals is outlined to ensure that the data is collected, processed, and stored in a consistent and efficient manner.

The communication and dissemination plan describes the ways in which the research findings will be shared with the wider research community and other stakeholders, including publishing articles in academic journals, presenting the research at conferences, and sharing the findings on social media or other online platforms.

2. Quality Management

2.1. Goals and objectives

2.1.1. Introduction

A quality control process is established in GENTE to ensure the success of the project.

This section includes a description of the overall goals and objectives of the research. It includes a description of the measures that will be put in place such as checks on the accuracy and completeness of the work to ensure the quality of the research and to ensure project activities fulfil project's objectives and expected impacts. This includes the criteria for evaluating the success of the project.

2.1.2. Key roles in the GENTE project

The project will have a consortium management team(CMT) comprising project owner (PO, chair), project manager (PM), and work package leaders (WPLs). Each participating country will also have a nominated point of contact with local funding bodies, and a nominated lead for living lab activities who will also sit on the CMT, if not already represented. The consortium management team will have overall responsibility for the project. The PO will be the main contact person for liaison with the ERA-NET's project officer.

The PM will have the day-day responsibility for ensuring that the project meets the technical and scientific objectives and for dealing with operational project-related issues. In particular, the PM will coordinate the provision of all reports and will monitor the timely production of deliverables and the financial budget.

The prime roles of the PM and PO will be to:

- Lead, guide and encourage task owners and other project resources,
- Undertake the day to day management of the project activities,
- Set up financial recording and reporting systems,
- Establish and monitor the overall project plan based on the WP plans produced by each task leader,
- Generate project risk assessment procedures and continually assess and manage the mitigation of any potential identified risks to the project,
- Implement issue reporting processes, change control process and configuration management,
- Oversee the development of the project handbook and consortium agreement.

The project owner is identified as:

Organisation name   Fachhochschule Zentralschweiz – Hochschule Luzern

Country   Switzerland

Responsible person   Prof. Antonios Papaemmanouil

The project manager is identified as:

Organisation name   Chalmers University of Technology

Country   Sweden

Responsible person   Prof. Tuan Le

2.1.3.   Goals and objectives of the research

The objective of the GENTE project is to create a distributed governance toolkit for local energy communities (LECs) that will advance the green energy transition, support community sustainability and coherence. The project will result in methodologies, knowledge, technology and services.

To achieve the above goals, the following technical objectives (TOs) and non-technical objectives (NTOs) are defined:

- TO1 - Develop and demonstrate scalable technology for autonomous orchestration of electricity, heat and eMobility assets within and across communities (based on IoT, edge) bringing intelligence to distributed physical assets, considering data security, interoperability, and privacy.
- TO2 - Develop and integrate modules for forecasting using edge-based processing, including developing/providing optimisation algorithms for distributed control as well as reduced models to inform model predictive control.
- TO3 - Build the intelligent assets and forecasting into a DLT-based framework for identification and traceability of community energy resources, as well as digital identity management of the community members and the other stakeholders.
- TO4 - Develop and demonstrate a community platform for decision making and resource control that will support secure and resilient energy systems.
- NTO1 - Accelerate the economic viability of Local Energy Communities (LECs) through Community Federations and business models based on energy resource optimisation
- NTO2 - Accelerate the creation of LECs by proving the framework in Living Labs across Europe. Maximize energy efficiency and balance and increase the interactions with the energy market;
- NTO3 - Promote engagement in LECs, and support the non-economic benefits of community energy, including self-governance, through innovative products and services.
- NTO4 - Define and incorporate need owner requirements in platform design and replication toolkit

2.1.4.   Research approach

GENTE uses a multi-disciplinary approach for collaborative innovation, integrating research domains in a number of fields, i.e. i) social sciences to map the needs and values of need-owners, to develop new business models ii) in smart grid technologies to develop energy optimization in energy communities, development of IoT based energy community governance toolbox, including energy resource management, distributed ledger technologies iii) in data sciences, AI methods for advanced forecasting, edge intelligence as an enabler for energy management and optimization); to push forward the practical implementation of energy communities.

GENTE solutions will first be developed by academic partners and technology developers in the project. For co-creation and involvement, needs and preferences of end-users and other stakeholders will be identified using a combination of survey, interview and experimental methods. The solutions will be validated first at the living lab levels, then at real full-scale environments in order to increase TRL levels of solutions. Once solutions have been validated, business models can be developed, and replicability and scale-up plans can be made to bring the solutions to the market.

GENTE includes representation of LECs with 6 demonstrators at different scales in Sweden, Switzerland, and Turkey. These include i) CELL Living Lab/Am Aawasser (Switzerland): A living lab with a "self-consumption community", and at the HSLU campus equipped with PVs, EV charging, smart grid HiL test lab, etc.; ii) LuzernSued (Switzerland): A cross-community mixed site that comprises 6 urban areas around HSLU campus ; iii) HSB Living Lab (Sweden): A residential living on the premises of Chalmers campus equipped with PVs, batteries, heat pumps, EV chargers and other controllable resources (washing machines, dryers, etc.); iv) Alingsås Energy (Sweden): A distribution network with increased installation of PVs and heat pumps with energy storage of heat v) Troya Cooperative (Turkey): A residential energy community equipped with large PV installations and heat pumps; vi) Troya cooperative island energy community (Turkey): An energy community on an island that is suitable for the demonstration of federations of communities, which is under development and expected to be formally established on early 2023.

2.1.5.   Research integrity

GENTE aims to comply with best practice in research, in particular aiming to align with the European Code of Conduct for Research Integrity[1]. The document sets out principles and good practice for European research projects.

In general, deliverables and publications for GENTE must be unique to the project. Reuse of written material from previous projects should be avoided. If text is reused, it should be substantially revised for GENTE.

---

[1] https://www.allea.org/wp-content/uploads/2017/05/ALLEA-European-Code-of-Conduct-for-Research-Integrity-2017.pdf

Less than 15% similarity detected during scans is considered an acceptable threshold for academic papers, and this similarity score should be treated as a guideline for project reports and deliverables. This applies to internal and external documents. Similarity scores can be generated using the Editor function in Microsoft Word.

Outputs from previous work can be used as inputs to GENTE. Processes, protocols, approaches and concepts can be common to other projects but must be applied to GENTE cases. In exceptional situations, a partner may reuse text from other projects if they were the author of the text to be reused, and if reuse of the text can be justified on the basis of technical or scientific reasoning (e.g. the text is a statement of accepted scientific fact).

Reuse of software (code, algorithms) is acceptable provided license conditions and permissions are respected and appropriate citations or statements are made in deliverables.

In case of doubt the coordinator can advise.

2.1.6.   Milestones and key performance indicators

Contractual milestones are listed in Table 1**.**

Table 1 - GENTE project milestones

Milestone # and Name		M
5.1	Research complete - clear solution proposed for sub-metering device	10
3.1	Identification of relevant need owners completed	12
5.2	Device hardware and software functional prototype available for field testing	15
6.1	Advanced BEMS operational	15
5.3	Digital twin integration of data from functional prototype edge device	18
8.1	IoT-platform operational and integrated in all demonstration sites	18
9.1	GENTE solutions deployed in all living labs	19
4.1	Workshop for boosting the scalability and replicability of GENTE solutions with potential replicators	21
6.2	Toolbox for distributed governance of energy community completed	21
9.2	GENTE living labs validation and assessment completed	24

Contractual **KPI's** are listed in the Table 2.

Table 2 - GENTE contractual KPIs

#	KPI	Value	Measured by
1	New services to the DSO	2 new	Demonstrated in WP9
2	Community CO2 emissions reduction	Up to 30%	Calculated from measurements in WP9
3	User interaction with platform through living lab	200 users 2 communities	Measured in WP9 and shown in WP2
4	Improved community energy efficiency	Up to 30%	Demonstration in\ living labs/simulations

2.2. Quality Assurance

2.2.1. Internal review of GENTE deliverables

The GENTE deliverables represent the project legacy and as such are the most important outcome of the project. An elevated level of quality therefore needs to be ensured. Many documents will be stored in a publicly available repository on the GENTE website; to ensure adequate quality for public dissemination, an internal review process is therefore defined.

Transparency and accountability play an important part in project success. Responsible organisations have therefore been identified for the completion and review of each deliverable, in line with the project programme (Appendix A).

A first complete release of the deliverable will be passed by the deliverable owner to the reviewing organisation at the specified date. The reviewer will provide comments on the document to the document owner within one week of submitting the deliverable. Where minor revisions are required, these will be completed by the deadline specified. In case major revisions are required, a new deliverable completion date may be required, and should be agreed with the PO and PM on a case by case basis.

The scope of the review process includes an assessment of completeness against scope as agreed between involved partners, contribution to project goals and objectives, language, and formatting. Deficiencies in conclusions or scientific method can also be identified in the review process. Code reviews and replication of research are not within the scope of the review process.

2.2.2. Internal review of project milestones

Work package leaders are responsible for providing adequate justification for the completion of milestones related to their work packages. In general, milestones are directly linked to project deliverables. The project manager will confirm that the milestone has been achieved based on justification provided by the work package leader.

2.2.3. Interim national reports

The requirements for interim reports are defined by local funding agencies and by ERA-NET. Partners will endeavour to provide input to local reporting requirements where necessary. A shared document will be established to simplify the process and ensure consistency of messaging across the consortium.

2.2.4. Document classification

Documents will be classified according to their distribution status. Distribution status is as follows:

> C – Consortium Internal
>
> PU – Public
>
> ERA – ERA-NET / Expera / ERA-Learn

Where documents are classified as Consortium Internal, only an executive summary will be provided on the GENTE website.

2.2.5. Document storage

A shared Google drive is provided for document storage. Confidentiality requirements are defined in the GENTE consortium agreement. Document and data handling requirements are defined in the Data Management Plan within this document (Section 4).

Deliverables will be stored in the folder "500 – Deliverables" on the shared drive. Deliverables will use the approved project template. A naming convention will be used as follows:

- **GENTE-[Dx.x]-[Short name]-[Level of Dissemination]-[confidentiality level]_[Version]**

Documents will be stored as PDF files on the shared directory.

- [Dx.x] is as defined in the proposal,
- [Short name] is a shortened deliverable name, chosen by the author,
- [Level of Dissemination] is either C, PU or ERA, as defined below,
- [Confidentiality level] is either C, R or P, as defined in Chapter 4,
- [Version] should follow the format D0, D1, D2 etc. for drafts and R0, R2, R3 etc. for releases.

Versions should be listed in a table in the start of each deliverable.

3. Risk Management

3.1. Risk management approach

The risk management plan includes a description of the potential risks and hazards associated with the research, as well as the steps that will be taken to mitigate, manage or avoid those risks. In addition, the plan outlines the roles and responsibilities of organisations involved in the research and describes how communication and coordination among those individuals will be managed to ensure that risks are identified and managed effectively.

A step-by-step approach is used in GENTE:

1. **Identify potential sources of risk.** Periodic risk assessments will be conducted at bi-annual project meetings, including consulting with advisory board members. Categories of risk include:
   a. risks to the researchers or participants,
   b. risks associated with the research methods, and
   c. risks related to the potential outcomes of the research.
2. **Evaluate the likelihood and impact of the risks.** This will help to prioritise the risks and determine which ones require the most attention and resources.
3. **Develop strategies to mitigate or avoid the risks.** Once risks have been identified and evaluated, the next step is to develop strategies to mitigate or avoid those risks, including implementing control measures to reduce the likelihood of the risks occurring and establishing protocols for responding to risks that do occur.
4. **Monitor and review the risks throughout the research project**. Risk management will be conducted as an ongoing process throughout the course of the research project. Risks will be reviewed at monthly GENTE WP leader meetings and, where appropriate, through the implementation of systems and tools within the GENTE proejct.
5. **Communicate and coordinate with all individuals involved in the research**. Effective risk management requires good communication and coordination among all individuals involved in the project. Clear lines of communication will be maintained via the monhtly WP leaders meeting.

3.2. Identified risks

Appendix B shows projects risks identified at the project start. A project risk register is maintained on the shared Google drive.

4. Data Management

4.1. Data management approach

The purpose of this chapter is to support stakeholders of GENTE, such as project partners, need owners, observers and energy communities, with establishing and maintaining a successful data management pipeline that ensures compliance with relevant regulations regarding privacy and confidentiality of data used in GENTE.

Anyone within the consortium who creates data, manages it, or relies on it for decision making and planning is required to adhere to the provisions set out in this Chapter. All Consortium participants who use data, regardless of the form of storage or presentation, are affected by this data management plan.

The purpose of the Data Management Pipeline is to achieve the following:

- Establish appropriate responsibility for the management of data as an asset of the GENTE project.
- Improve the security of the data, including confidentiality and protection from loss.

project data must be accessible, should correctly represent the information intended, and must be easily applied by consortium members. The purpose of data governance is to develop project-wide policies and procedures that ensure that the Consortium meets these criteria within and across data systems.

The Data Management Pipeline addresses data governance structure and includes policies on data access, data usage, and data integrity and integration, establishing policies, procedures and standards regarding data security and privacy protection, data inventories, content and records management, data quality control, data access, data security and risk management, data sharing and dissemination, and ongoing compliance monitoring.

4.2. Data handling guidelines

In GENTE, no research data is held centrally. Data management is dealt with on the basis of data management procedures held by partner that owns the data. Transfer is dealt with bilaterially on a case-by-case basis.

General data guidelines throughout the data lifecycle are summarised in Table 3.

Table 3 - GENTE contractual KPIs

Management Step	Description
Identification	Identify the data that is required, determine its level of classification, and determine the specific individuals who are authorised to access this data.
Storage	Store the confidential data in a secure location, such as a secure server or a physically secure location.
Access control	Implement strict access controls to ensure that only authorised individuals can access the confidential data. This may include password protection, authentication protocols, or other security measures.
Data handling	Establish procedures for handling confidential data, including guidelines for sharing the data with authorized individuals, and for disposing of the data when it is no longer needed.
Auditing	Regularly audit access to the confidential data to ensure that it is being used appropriately, and to identify and address any potential security breaches.

4.3. Data classification in the project

Data in GENTE will be classified according to whether it is:

- **Confidential:** Data that is sensitive or private, and should only be accessed by authorised individuals, as identified in the data management policies identified by the partner organisation. Confidential data includes identifiable data on human subjects. It is anticipated that confidential data will only be accessible to the partner organsiation that creates that data.
- **Restricted:** Data that is not sensitive, but should only be accessed by consortium members for specific purposes. Restricted data includes data on human subjects that is not identifiable to a specific individual. It is anticipated that restricted data will only be accessible to consortium members.
- **Public:** Data that can be shared freely with the public.

Documents will be classified according to their distribution status (C – Consortium Internal; PU – Public; ERA – ERA-NET / Expera / ERA-Learn).

Deliverables and project documentation should include the appropriate data classification as a footer in the document.

4.4. Data breach

In the event of a data breach, the processes defined by the organisation that was responsible for the breach within the consortium will apply. As a basis, the General Data Protection Regulation (GDPR) requirements can be used as a guide.

In the case of a data breach in a research project, the following steps should be taken, considering the requirements of the GDPR:

1. **Notify the appropriate authorities:** In the case of a data breach, the affected partner should immediately notify the GENTE project manager and the appropriate authorities, such as the partner's data protection authority.
2. **Investigate the breach:** The affected partner should conduct a thorough investigation to determine the cause of the data breach and the extent of the data that has been compromised. The project manager will also conduct an investigation.
3. **Contain the breach:** Once the cause of the data breach has been identified, the affected partner should take steps to contain the breach and prevent any further unauthorised access to the data. This may include disabling access to the data, implementing additional security measures, or other actions as appropriate. A description of the steps to be taken will be provided to the project manager.
4. **Notify affected individuals:** If the data breach involves personal data, the affected partner should notify the individuals whose data has been compromised, in accordance with the requirements of the GDPR. This may include providing information about the breach, the type of data involved, and any steps that the individuals can take to protect their data.
5. **Implement corrective measures:** After the data breach has been contained and the affected individuals have been notified, the affected partner should implement corrective measures to prevent similar breaches from occurring in the future. This may include updating policies and procedures, providing additional training for team members, or implementing additional security measures.

4.5. Data sharing between partners

As an international project involving citizen-based research and field trials, GENTE is affected by multiple laws and regulations for data handling and transfer. Data transfer between countries should in general be avoided. If data sharing is required for the successful implementation of research, the following steps should be implemented:

1. **Data sharing agreement:** outline the specific terms and conditions for sharing data between the partners, include details such as the types of data to be shared, the purposes for which the data can be used, and any restrictions on sharing or using the data.
2. **Implement security measures:** The involved partners should implement appropriate security measures to protect the data shared between the partners. This may include encryption, access controls, and other measures to prevent unauthorised access or disclosure of the data.
3. **Monitor and audit data usage:** The involved partners should regularly monitor and audit the usage of the data shared to ensure that it is being used in accordance with the data sharing agreement.

4.6. Data to be used in GENTE

An initial data audit has been conducted and is provided in Appendix C.

5. Communication and Dissemination Plan

5.1. Introduction

WP1 will organise, plan and execute dissemination activities to create full awareness of GENTE activities both within and outside Europe. Dissemination activities will be targeted at industry, policy, regulators, academia and the public, using channels including presentations at scientific society meetings, publications in peer-reviewed journals and sectorial magazines, open-source publishing and open access databases. Results will be available online in papers, infographics, technical videos, papers available on website and updates via social media, as described in this chapter.

Table 4 - GENTE Communication and Dissemination KPI's

KPI as defined in proposal	Metric to be measured	How
KPI1 - Website and social media.	Website visits in year 1: 1000. 50% annual increase in visits/year. Social media accounts will be active with at least 400 followers, 100 retweets, and 50 comments by the end of the project	Google analytics (website) and monitoring of social media
KPI2 - Conferences and publications.	The project will successfully submit at least 6 publications in peer-reviewed journals and will organise 1 public conference per year.	Publication list
KPI3 - Newsletters, technical factsheets, press releases, leaflets and brochures.	Technical factsheets will be produced for each demonstration and available on the website, updated every 6 months. 4 issues of the newsletter will be released, with 500 subscribers by the end of the project, and 3 articles per year in third party newsletters. Dedicated press releases will be provided every 6 months. Digital media will comprise at least 1 Leaflet, 2 project brochures, 1 project video and further content on a project YouTube channel, with at least 12 presentations spanning the project lifetime.	Website publication list Mailing list sign-up monitored using MailChimp YouTube interaction
KPI 4 - Equality, diversity and inclusivity.	2 special features per year, targeting equality and diversity. 1 targeted speaking slot per year promoting the achievements of under-represented groups within the GENTE consortium.	Delivered features

5.2. Phased communication plan

In Phase 1 (Initial awareness phase, M1-M3), the consortium will establish the communication plan and strategy and supporting documents, including knowledge management, knowledge protection and data management plans. Communication activities will create an initial awareness of GENTE in industry, presenting the project concept, objectives and expected results. Activities in phase 1 include:

- Establish brand Identity, create logo & brand guidelines.
- Publish website with social media integration.
- Video promotion: plan a short series of white board videos/animations to explain the role and goals of the project in a tangible way for need-owners. Create YouTube channel.
- Publish initial press releases through target channels.
- Create marketing/content Strategy: PDF available to all partners.
- Leaflet: Electronic and Print leaflet that can be downloaded via website & printable.
- Events: Select appropriate conferences and events and organize workshops

Table 5 - Phase 1 detailed communication plan

Objective	Details
Establish brand identity, logo & brand guidelines Publish website Create private sign-on	The branding and website development will be outsourced.
Plan a short series of white board videos/animations to explain the role and goals of the project in a tangible way for need-owners.	Videos will be created covering: 1. Project objectives and overview 2. A description of the demo sties 3. A description of the main components of the toolkit Videos will be created in English only.
Create marketing / content strategy	This GENTE project handbook provides the marketing / content strategy
Press releases and target channels	A list of target channels for press releases has been identified and is maintained in the GENTE project directly. The project will exploit collaboration such as HSLU membership in LFEnergy and via UsersTCP GO-P2P, INATBA Energy Trading Task Force and other relevant activities.
Appropriate conferences	A list of conferences has been identified in a list maintained separately on the GENTE project directory.

In Phase 2 (targeted awareness market phase, M4 - M12), the consortium will undertake refined "targeted awareness" regarding GENTE technologies with key players and potential users, aiming to inform about the technological benefits to the target market, and to demonstrate early results (e.g. components and early technical validation results). Activities in phase 2 include:

- Update website with latest concrete results and project news into shareable attractive articles that target key stakeholders.
- Press releases with latest results targeting key stakeholder publications and promoting discussion and feedback.
- Share news and project updates through Social media Channels (Twitter, Facebook and LinkedIn)
- Publications: electronic and printable brochures, research papers
- Newsletter: Distribute updates to registered parties and partners and social media
- Attend events, conferences.
- Videos: Updates, whiteboard videos showcasing components and intermediary results.
- Build awareness of innovation opportunities using online platforms e.g. ProductHunt

In Phase 3 (strategic phase, M12 - M24), the consortium will maximize target market and industry awareness on GENTE technologies by providing more tangible results, i.e. from pilot trials, verification and feedback from pilot users, aiming to demonstrate more advanced results (components and intermediate and final validation results). Activities in phase 3 include:

- Updates to website with news, videos, public deliverables and partial results.
- Publications: Social media and online promotion, such as early results in Twitter, Facebook, etc. and electronic newsletter.
- Brochure: Publish newsletter to registered parties and partners.
- Attend events.
- Organise Workshops.
- Final Press release.
- Video: Create YouTube videos showcasing the system in trials and users' opinion.
- Publish scientific papers in journals and conference proceedings, preferably open access.
- Demonstrations and feedback of trials evaluation.

Activities are largely as defined in Phase 2.

Table 6 - Phase 2 detailed communication plan

Objective	Details
Plan of press releases through target channels	Press releases will coincide with the release of articles (see below). Press releases will be in the form of news updates on the GENTE website, and will be pushed to the target channels
GENTE articles and newsletters	Articles will be published to coincide with the release of public deliverables. Articles will be grouped to cover deliverables with similar due dates. The text for the article will be closely linked to the deliverable abstract to minimise effort (adapted copy/paste). Newsletters will be released to coincide with articles (replication of content to minimise effort). **Article 1 (M12)** • Future scenarios of local energy systems with increased renewable share • Identification of user types and organizational models • Definition of system architecture and specification of functional requirements • Specification of relevant need owners • Definition of highly applicable use cases **Article 2 (M15)** • Edge-based DER forecasting and diagnostic algorithm, incl. privacy-preserving learning • Advanced BEMS for "Building control as a service" **Article 3 (M22)** • Summary of demo-case requirements, scenarios, solutions and evaluation for each site • Explanation of the replication packaging kit **Article 4 (M24)** • Business models for GENTE solutions with replicability and scalability evaluation • Assessment of demonstration, identification and lessons learned/best practices for replication
GENTE presentations and conference attendance	Where possible GENTE consortium member presentations (e.g. at conferences) will be linked from the YouTube channel and social media. A list of conferences has been identified in a list maintained separately on the GENTE project directory. During this period, GENTE will conduct a 'special session' at a conference that summarises the project objectives and progress in multiple presentations. This will include a special feature on equality and diversity (c.f. KPI 4)
GENTE factsheets	Technical factsheets will be produced for each demonstration and available on the website,

Table 7 - Phase 3 detailed communication plan

Objective	Details
Pre-determined replication packaging kit (D1.3)	A step-by-step Replication Packaging-Kit will be created comprising tools supporting scale-up, engagement of the market (investors, industry) from design to collaboration to framework/template materials for procurements, joint procurement, to operational learning and listing benefits from the process. The Replication Packaging-Kit will be valuable in the latter phase of the project, when WP4 and the demo sites will have gathered intelligence, the exploitation work is on-going, and the solutions demonstrated are getting ready for replication outside of the local areas