



# Quality Assurance Plan

D1.3

April 2021

# Deliverable

PROJECT ACRONYM	GRANT AGREEMENT #	PROJECT TITLE
TWINERGY	957736	<b>Intelligent interconnection of prosumers in positive energy communities with twins of things for digital energy markets</b>

## DELIVERABLE REFERENCE NUMBER AND TITLE

### D1.3 Quality Assurance Plan

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#### AUTHORS

Stylios Karatzas	Vasiliki Lazari	Anastasios Karameros
UoP	UoP	UoP



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#### DISSEMINATION LEVEL

- ✓ **P Public**
- P Confidential, only for members of the consortium and the Commission Services

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## Statement of Originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation, or both.

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# Executive Summary

The present document is the deliverable D1.3 “Quality Assurance Plan” of the TwinERGY project, funded by the European Commission’s Innovation and Networks Executive Agency (INEA), under its Horizon 2020 Research and Innovation programme (H2020). The main objective of this deliverable is to provide a single point of reference for the quality assurance procedures applied to all internal and external results and deliverables during the project implementation. In this deliverable, the project quality assurance approach is presented and the procedures and tools that the consortium follows for deliverable production, reviewing, reporting, and disseminating project outcomes are described. The TwinERGY Quality Assurance Plan is a complementary deliverable which, along with D1.1 “Project Management Handbook” and D1.5 “Project Management Plan”, is intended to be used by all the project partners as a guideline to ensure quality assurance of project processes and outputs and to prevent possible deviations from the project work plan. The Quality Assurance Plan should be updated throughout the project, whenever the aforementioned procedures are modified or the TwinERGY participants agree on including additional information and processes.

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# 1. Introduction

The main aim of the TwinERGY project is to introduce an innovative energy system aligned with EU regulations that will combine existing advanced technologies into a new interoperable framework, business models and consumer-centric services to offer a comprehensive solution to empower citizen active participation into the new EU energy market. In this direction, the TwinERGY project will consider the involvement of energy consumers' associations, providing substantial knowledge regarding the consumers and the energy market relations, since consumer behavior is considered as the main concept for understanding, managing, and accomplishing sustainable energy consumption. In line with the above, TwinERGY is a "user-oriented" project in which consumer participation is important for a successful outcome. In this way, the consortium shows its respect to the European and national legislation regarding privacy and safety issues, as well as its concern about the privacy and safety protection of project participants.

## 1.1 Deliverable scope

The purpose of quality assurance is to create confidence that the quality plan and controls work properly. To this end, time and effort need to be devoted to review the original quality plan and justify how quality is being assured during the project implementation. TwinERGY synergy recognizes that project partners may follow their own internal policy regarding the quality assessment and assurance of their activities. Nevertheless, due to the project scale and the need to facilitate efficient coordination among the several partners, a TwinERGY quality assurance plan is essential to assure quality in all project activities and outcomes. This Quality Assurance Plan should be used as a guide to ensure outcome success throughout the project lifespan.

The Quality Assurance Plan is a detailed document describing quality assurance procedures and structures in order to guarantee result sufficiency and efficacy of the TwinERGY outcomes. Being in line with the project management procedures, which have already been described in D1.1 "Project Management Handbook" and D1.5 "Project Management Plan", this deliverable aims to define the project quality criteria and verify that all internal and external procedures and outcomes meet specific quality objectives and performance indicators throughout the project lifecycle.

The Quality Assurance Plan describes the way that the project activities will be executed from a quality management perspective, ensuring that internal standards, processes, and procedures are defined, and their execution is continuously monitored, corrected, and improved, when necessary. Thus, TwinERGY has created a structured quality assessment

system to dismantle the different procedures that will take place during the project implementation phases.

## 1.2 Deliverable structure

The structure of this deliverable consists of the following chapters:

- ❖ Chapter 1 is the introductory section of the deliverable which presents the purpose, the structure, the reference documents, and the abbreviation list.
- ❖ Chapter 2 briefly presents the main project information, its budget, funding source, and participants.
- ❖ Chapter 3 describes the quality assurance objectives and the quality assurance planning and control phases while further explains the Quality Assurance Officer role and responsibilities.
- ❖ Chapter 4 presents the Key Performance Indicators that have been established during the quality assurance planning phase.
- ❖ Chapter 5 explains the procedures that aim to assure high-quality results including deliverable preparation and review, software development, meeting planning, result documentation and publication, and milestones reporting. It also describes the processes of assessing the pre-defined KPIs and metrics.
- ❖ The final section of the deliverable contains the Annexes of the Quality Assurance Plan.

## 1.3 Reference documents

This document is based on the following reference documents:

- TwinERGY Grant Agreement no. 957736
- TwinERGY Consortium Agreement
- Horizon 2020 AGA - Annotated Model Grant Agreement
- Horizon 2020 Online Manual: [https://ec.europa.eu/research/participants/docs/h2020-funding-guide/index\\_en.htm](https://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm)
- D1.1 Project Management Handbook
- D1.5 Project Management Plan

## 1.4 Abbreviation list

Table 1 presents the main abbreviations used in this document.

Table 1. Abbreviation list

Acronym	Full Name
H2020	Horizon 2020
EC	European Commission
INEA	Innovation and Networks Executive Agency
DoA	Description of Action
GA	Grant Agreement
PC	Project Coordinator
WP	Work Package
WPL	Work Package Leader
TL	Task Leader
DL	Deliverable Leader
QA	Quality Assurance
QAO	Quality Assurance Officer
QAP	Quality Assurance Plan
SQA	Software Quality Assurance
KPI	Key Performance Indicator

## 2. Project General Information

Table 2 presents some useful information about the TwinERGY project.

*Table 2. Project general information*

Project number:	957736
Responsible Unit:	INEA/H/01
Call:	H2020-LC-SC3-2018-2019-2020 submitted for H2020-LC-SC3-2020-EC-ES-SCC / 29 Jan 2020
Topic:	LC-SC3-EC-3-2020 - Consumer engagement and demand response
Type of Action:	Innovation Action
Duration:	36 months
Entry into force of the Grant:	31/08/2020
Project Start Date:	01/11/2020
Project End Date:	31/10/2023

### 2.1 Budget

The total eligible project cost amounts to 7,090,310.00 €. The maximum EU funding is 5,903,474.39 €, which counts for the 83.26 % of total costs.

### 2.2 Participants

The consortium of TwinERGY is composed by 18 partners and 2 third parties from 12 European countries (Table 3).

*Table 3. List of TwinERGY participants*

No.	Partner	Short Name	Country
1.	PANEPISTIMIO PATRON	UoP	Greece
2.	STAM SRL	STAM SRL	Italy
3.	TECHNISCHE HOCHSCHULE	TH OWL	Germany

	OSTWESTFALEN-LIPPE		
4.	UNIVERSIDADE NOVA DE LISBOA	UNL	Portugal
5.	IES R&D	IES R&D	Ireland
	INTEGRATED ENVIRONMENTAL SOLUTIONS LIMITED	IES LTD	UK
6.	BENETUTTI	BENETUTTI	Italy
7.	UNIVERSITY OF BRISTOL	UNIVBRIS	UK
8.	KNOWLE WEST MEDIA CENTRE LBG	KWMC	UK
9.	SUITE5 DATA INTELLIGENCE SOLUTIONS LIMITED	SUITE5	Cyprus
10.	ETRA INVESTIGACION Y DESARROLLO SA	ETRA	Spain
11.	WORLD ENERGY CONSORTIUM P.L.C.	WEC P.L.C.	Malta
12.	MYTILINAIOS ANONIMI ETAIREIA	MYTILINEOS	Greece
13.	BRISTOL CITY COUNCIL	BCC	UK
14.	EUROPEAN DYNAMICS LUXEMBOURG SA	ED LUXEMBOURG	Luxembourg
	EUROPEAN DYNAMICS ADVANCED INFORMATION TECHNOLOGY AND TELECOMMUNICATION SYSTEMS SA	EDAT	Greece
15.	Stadt Steinheim	Stadt Steinheim	Germany
16.	IDEAS 3493 SL	IFC	Spain
17.	ARTHUR'S LEGAL BV	ARTHUR'S LEGAL	NL
18.	Smart Energy Europe	smartEN	Belgium

## 3. TwinERGY Quality Assurance Plan

The Quality Assurance process is a significant ingredient of the Project Management as it can deliver a solid ground for the qualitative implementation of project activities, ensuring that they satisfy the TwinERGY high standard requirements and fully achieve its objectives. Quality assurance evaluates the project performance and develops recommendations in response. In this direction, a set of activities need to be planned and compiled from the beginning of the project to achieve the desirable quality. At the same time, the operational techniques and activities that will be used to fulfil quality assurance requirements need to be presented. The procedures mentioned above constitute the quality planning and quality control respectively. In TwinERGY, quality planning and quality control are considered as requisites to achieve quality assurance. Hence, Quality Assurance will be determined by defining the objectives and implementing the quality planning and control procedures across project related activities, as analyzed in the next sections of this deliverable.

### 3.1 Quality Assurance Objectives

The main objectives of the Quality Assurance (QA) process, coupled with respective actions, are to:

- Appoint Quality Assurance Officers who can provide clear vision and direction on the project activities by establishing and monitoring quality assurance procedures.
- Let all policies and procedures be properly documented and regularly reviewed for project progress assessment.
- Establish internal action plans with measurable outcomes (KPIs and metrics) to verify and control the project quality.
- Use effective communication networks to keep all TwinERGY partners informed.
- Actively participate in the review process, both internal and external, in order to drive and promote continual improvement.
- Identify potential deviations at their early stages and feed the information to the Consortium to initiate remedial actions as soon as possible (if necessary).

For these objectives to be achieved, a detailed planning scheme needs to be developed along with certain control procedures for monitoring and evaluating the project outcomes.

### 3.2 Quality Assurance Planning and Control

Quality Assurance is fundamental for all implementation phases in TwinERGY project and should be implemented by all Partners while working on their tasks. In this aim, TwinERGY partners shall:

- Maintain conformity in work methods throughout the project activities, in accordance with established policies, procedures, regulations and codes of practice that are analyzed in the Consortium Agreement and in the deliverables D1.1- "Project Management Handbook", D1.3- "Quality Assurance Plan", and D1.5- "Project Management Plan".
- Ensure that all policies, procedures, relevant regulations, and codes of practice are effective and properly adjusted to the TwinERGY needs.
- Regularly monitor and measure the quality of methods and expected outputs in order to ensure high quality standards, best value, and continuous improvement.

The purpose of the quality planning and control is to provide a sound basis for:

- the agreement among partners on quality expectations in achieving a satisfactory quality level of key project deliverables and processes,
- the provision of information so that all project partners have a common understanding of the project objectives and the means to achieve them,
- the quality control of the deliverables and processes so that they best serve their purpose.

In TwinERGY project, quality planning is about defining the expected outcomes of the synergy (objectives and milestones) as well as the respective quality criteria, responsibilities, and assessment methods followed by the partners involved. Quality planning is reflected in this document as it specifies quality procedures on the topics that have been identified as most important for this project implementation (namely Communication, Reporting, Documents, Deliverables, and Dissemination) and have not been fully described yet in previous deliverables of WP1 "Project Management and Quality Assurance".

At the same time, TwinERGY project introduces quality control procedures and mechanisms to ensure that the project outcomes adhere to a defined set of quality criteria, which had been established during the quality planning phase. "Quality control" is defined as the operational techniques, procedures and objectives that are used to fulfil the requirements of quality. Quality control entails the use of metrics and the constant testing of project outcomes to determine if they fit to the predefined criteria and specifications.

In this document, for each of the aforementioned topics, quality goals are set and the processes to control and assure goal accomplishment are defined. More specifically, as part of the quality assurance planning, TwinERGY Quality Assurance Officers have produced a set of Key Performance Indicators (KPIs) to support high quality outcomes. These KPIs are used as a means of implementing quality planning in relation to processes, roles and responsibilities that have been reported in previous deliverables. Using the KPIs and their

metrics as quality control mechanisms in conjunction with the quality assurance procedures described in section 5 of this deliverable, the mapping of quality assurance can be achieved.

### 3.3 Quality Assurance Officer

One of the main aims of the Project Management effort is to design the quality assurance procedures and structures that will ensure that the project satisfies its requirements and achieves its full objectives. To this end, the project consortium needs to be deeply committed on assuring high quality results through the continuous monitoring and assessment of the project planned activities and outcomes, meaning that quality assurance should rely on the joint contribution of all project partners at all levels. Within the collective effort, the Quality Assurance Officer(s) will hold the global responsibility for Quality Assurance and Quality Control of the TwinERGY outcomes.

The role of the Quality Assurance Officers (QAOs) has been attributed to Dr. Stylianos Karatzas (UoP - Project Manager of TwinERGY) and Ms. Vasiliki Lazari (UoP - Project Management Team member). The Quality Assurance Officers act at the project level and are responsible for assessing the predefined quality Key Performance Indicators, applying the Quality Assurance standards (set in the deliverables D1.3 "Quality Assurance Plan" and D1.5- "Project Management Plan"), and proposing preventive or corrective measures for mitigating quality related risks, in collaboration with the Project Coordinator. The Quality Assurance Officer scheme may be strengthened throughout the project implementation and based on the arising needs of TwinERGY.



## 4. Quality Assurance Key Performance Indicators

The following Key Performance Indicators (KPIs) will be used in TwinERGY related actions to guarantee the optimum quality of the project outcomes. KPIs can assist in spot inefficiency identification within different processes in TwinERGY by tracking certain metrics. The selected KPIs indicate how efficiently TwinERGY operations have been performing and ensure that any arising issue can be quickly and positively fixed, affecting likewise the project implementation. The KPIs will be used as an instrument for the internal quality assessment of various project procedures conducted by Quality Assurance Officers. Any noteworthy issue arising from the quality assessment or quality control implementation will be promptly notified to all relevant partners.

### 4.1 Communication related KPIs

#### KPI COM1

Description: TwinERGY organizes efficient and well managed project meetings.

Metric 1. All formal meetings have an agenda prepared and distributed well in advance, following the provisions in D1.5 and the CA, and using the template provided in Annex 3 of the present deliverable D1.3 "Quality Assurance Plan".

Metric 2. All formal meetings are filed with their minutes developed in a timely manner, using the approved minute template in Annex 4 of the present deliverable D1.3 "Quality Assurance Plan", and uploaded to the project repository.

#### KPI COM2

Description: TwinERGY sets up and maintains efficient and easy-to-use collaboration tools.

Metric 1. The project has set up private and functional collaboration tools and made them available to all partners.

Metric 2. The number of issues raised from team members regarding the appropriateness of the collaboration tools is recorded.

Metric 3. The time and efficiency to respond to collaboration issues is recorded.

### 4.2 Reporting related KPIs

#### KPI REP1

Description: TwinERGY meets EC related reporting requirements in time and with no problems.

Metric 1. The number of issues that have been identified related to EC reporting is recorded.

### **KP1 REP2**

Description: TwinERGY meets internal reporting policy (see D1.5- "Project Management Plan") in time and with no problems.

Metric 1. The number of issues that have been identified related to internal reporting is recorded.

Metric 2. The number of monthly fixed issues among the recorded issues presented in the internal reporting period prior to auditing is recorded.

## **4.3 Document related KPIs**

### **KPI DOC1**

Description: TwinERGY partners follow agreed standards for formats and tools to be used in document editing and exchange, as described in D1.5 "Project Management Plan".

Metric 1. Periodical monitoring and checking the document adherence to the guidelines described in section 5.1 of the deliverable D1.5 "Project Management Plan".

## **4.4 Deliverable related KPIs**

### **KPI DEL1**

Description: TwinERGY deliverables are of high quality and follow the preparation guidelines described in section 5 of the present deliverable D1.3 "Quality Assurance Plan".

Metric 1. Periodical monitoring and reviewing the submitted deliverables to record the number (and percent) of them that are considered of high quality (based on the added experience gained as the project progresses) and the number (and percent) of them that have followed the preparation and submission guidelines.

Metric 2. The number (and percent) of accepted deliverables by the EC is recorded. The review comments on the deliverables and the potential amendment requests by the EC are assessed in terms of importance and consequence.

### **KPI DEL2**

Description: TwinERGY deliverables are submitted in a timely manner.

Metric 1. Periodical monitoring and assessing the number of deliverables that were submitted according to the timeline.

## **4.5 Dissemination related KPIs**

### **KPI DIS1**

Description: TwinERGY website is set up and running before M6 and updated on a regular basis.

Metric 1. Six-month periodic audits to check that the public website is updated with the relevant information.

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Metric 2. Periodical monitoring of traffic towards the site and recording the number of visits, the geographical origin of visitors, and other technical features typically reported by web hosting services.

### **KPI DIS2**

Description: TwinERGY updates social media accounts on a regular basis throughout project implementation.

Metric 1. Periodical monitoring of the social media accounts to check that they are updated with the relevant information.

## 5. Quality Assurance Procedures

The European Commission has set as a requirement that all funded projects should plan quality management processes in order to simplify the consultation process within the project partnership and assist the Project Coordinator in quantifying results and relating them to the project objectives. Quality assurance procedures will be established, monitored, and evaluated by the Quality Assurance Officers; nevertheless, all partner commitment to these procedures and collaboration is necessary in order to achieve high standard results.

### 5.1 Deliverable preparation and review procedures

Deliverables represent the main output of TwinERGY and are of a great importance for the EC's evaluation of the project progress and achievements, since they are the technical documents that contain the analyses and the produced results. Each deliverable should be submitted to EC according to the schedule included in the DoA. A total of 62 deliverables are to be submitted to the European Commission during the project lifespan. To ensure smooth and timely delivery of them as well as homogeneous presentation, a set of procedures have been presented in D1.5 "Project Management Plan". With the experience of the first six months of the project execution, the initial set of procedures is being enhanced with additional processes to meet the TwinERGY emerging needs. The following sections describe in detail the roles and responsibilities, the quality criteria, and the review process of the deliverable development.

#### 5.1.1 Roles and responsibilities in the deliverable preparation process

The project team, aiming at the highest possible quality of every single deliverable (among the 62 ones identified in the DoA), assigns the following roles and responsibilities for the preparation and submission of such documents.

*Table 4. Roles and responsibilities in the deliverable preparation process*

Role	Responsibility
Author(s)	Typically, the author is the Deliverable Leader (DL) but there may be additional persons authoring each document. The authors cooperate with the Task Leader and Work Package Leader to collect all needed information for preparing the deliverable. The authors are being supervised by the DL.

Deliverable Leader	The Deliverable Leader continuously monitors the deliverable preparation while taking into account the deadline for submission and the required time for review(s). The DL supports the internal communication within the task(s) that the deliverable is linked to and coordinates the author work. The DL is also responsible for organizing the review process and for inviting extra voluntary reviewers, if any.
Task Leader	The Task Leader is responsible for appointing the Deliverable Leader. The TL and the DL can be the same person.
Work Package Leader	The Work Package Leader has the overall responsibility for the work package task and related deliverables. The WPL directly communicates with the PC to provide information regarding the evolution of the document production.
Reviewers	Appointed or voluntary reviewers are responsible for evaluating the deliverable and for proposing amendments or improvements before forwarding the deliverable to the Quality Assurance Officer for a formal approval.
Quality Assurance Officer	The Quality Assurance Officer performs the quality check and assesses the content adherence to DoA of the deliverable. Following approval, the Quality Assurance Officer forwards the deliverable to the Project Coordinator for the final check and approval.
Project Coordinator	The Project Coordinator evaluates the deliverable as a whole and, after approval, submits it to the EC.

### 5.1.2 Deliverable quality criteria

The quality of each deliverable is reviewed against specific criteria at different preparation levels and stages and before the final submission to the EC. This is done to ensure consistency of the review process among deliverables and to support the reviewer's clear understanding and compliance with the process. The criteria, along with the aspects to be examined, regarding the deliverable quality are outlined in Table 5.

Table 5. Deliverable quality criteria

Quality Criteria	Description
<b>Clarity</b>	<p>The language of the text is clear (proper sentence structure is used).</p> <p>The text is in English.</p> <p>The text is unambiguous.</p> <p>The terminology, including acronyms, is thoroughly explained.</p> <p>There are no spelling errors</p> <p>Any potentially sensitive information is appropriately worded.</p>
<b>Completeness</b>	<p>All aspects of the deliverable are fully addressed (as described in Annex I (Part A) of the GA).</p>
<b>Accuracy</b>	<p>All fact-based information used in the deliverable is supported by the respective references.</p>
<b>Added value</b>	<p>Each aspect of the deliverable is analyzed in adequate detail.</p> <p>The deliverable has scientific and/or policy value, as envisaged by the project.</p> <p>The language of the text is beneficial to the targeted audience (e.g., scientists, policymakers).</p>
<b>Relevance</b>	<p>The content is relevant to the scope of the deliverable and in line with the DoA.</p> <p>The deliverable is relevant to the targeted readers/audience.</p>
<b>Compliance</b>	<p>The text is written in line with the deliverable template.</p> <p>The file follows the standard file format and naming convention.</p>

Clear instructions are given to all Work Package Leaders by the Quality Assurance Officers so that they assess the deliverables, prepared by the authors and the DLs, against all the above-mentioned criteria in the review process. These instructions should be forwarded well in advance by the WPLs to all relevant parties involved to the deliverable preparation process (Deliverable Leader, Task Leader, and Reviewers).

### 5.1.3 Deliverable preparation, review, and approval

The deliverable development is a process with several intermediate stages that must be completed before it reaches the submission phase. TwinERGY identifies the following phases in the deliverable production and submission process:

*Phase 1:* During this phase, the author(s) prepare the first version of the deliverable.

*Phase 2:* After the author(s) write the deliverable, they internally review the document so that it can acquire the status of "draft".

*Phase 3:* The draft deliverable is forwarded to two members of the consortium (other than the author(s)) for peer-review and attains the status of "proposal".

*Phase 4:* The author(s) consider the reviewer comments and make the appropriate amendments. The document is checked by the Quality Assurance Officer for quality verification and evaluated as a whole by the Project Coordinator, leading to the status of "accepted".

*Phase 5:* Once the deliverable is accepted, it is finally submitted to EC by the PC.

In order that the involved parties follow the above five-step process while respecting the submission date, a strict timeline is set including all actions that must be carried out in each phase. More specifically:

- Two months before the submission deadline, the WPL should contact the PC and inform him regarding any identified or potential delay in a deliverable submission. If necessary, the PC will have to communicate such delays to the EC.
- Two months before the submission deadline, the DL should notify the assigned reviewers about the deliverable production progress and ask for other voluntary reviewers.
- One month in advance of the delivery date, the DL should contact both the WPL and the PC to confirm the delivery date or report any unexpected delay to the submission of the document.
- At least three weeks before the submission due date, the DL should submit the draft to the appointed reviewers and make sure that both the WPL and the PC are informed for this action.
- Within a week on receipt of the draft deliverable, the reviewers should provide their comments to the draft in a track change mode and propose improvements. In case that the DL does not agree with any reviewer's' comments, he/she should contact the reviewers, explain the reasons of disagreement, propose the rejection of such changes, and ask for their confirmation.

- At least two weeks before the document delivery date, the DL must implement all the agreed changes proposed by the reviewers. The updated document is sent to the WPL for approval as well as to the PC to inform him about the applied changes.
- At least 10 days before the submission, the DL finalizes the deliverable proposal and forwards the document to the Quality Assurance Officer for approval.
- At least 5 days before the submission, the Quality Assurance Officer complete the quality check and submits the document to the Project Coordinator for the final approval.

In case that unforeseen reasons cause delays in the review process, the reviewer who cannot meet the deadline, should inform the Deliverable Leader as soon as possible. If the reviewer cannot be replaced in time or the new reviewer cannot meet the predefined deadline, the DL should inform the Work Package Leader and the Project Coordinator to address the issue.

#### 5.1.3.1 Reviewer selection criteria

A minimum of two reviewers is set as TwinERGY requirement per deliverable. In order to nominate reviewers for each deliverable, several criteria are set for an effective appointment. The general criteria for nominating reviewers are presented below:

1. The deliverable author(s) cannot be nominated for the position of the reviewer of the same deliverable.
2. The Work Package Leader or Task Leaders cannot be appointed as the reviewers of the deliverable that is related to the WP or task.
3. The number of reviews allocated to each partner should be balanced and reasonable, considering their total effort in the project.

The list of the reviewers (which is presented in Annex 1 of this deliverable) has been formulated in accordance with the previously mentioned criteria and may be updated during the project, considering the emerging needs of TwinERGY project.

#### 5.1.3.2 Deliverable review template

The review process is an important component of the effort for producing high quality deliverables. To better facilitate this process, a deliverable review template has been structured and is considered as an essential quality assurance tool, helping the reviewers to organize and provide constructive comments to the draft deliverable. Moreover, the deliverable review template contains information about the reviewing schedule so the reviewers can effectively manage their time and effort and the Quality Assurance Officers and the Project Coordinator can monitor and control the deliverable implementation time plan. The deliverable review template is provided to reviewers by the Quality Assurance Officers but it is also accessible by all consortium members through the project repository. The deliverable review template is attached in Annex 2 of this deliverable.



## 5.2 Software quality assurance procedures

Software artifacts to be developed as part of the project are also considered as deliverables (under the types of other/demonstrator) and are generally anticipated to be publicly available via the respective means of publications mentioned in deliverable D1.2 "Data Management Plan". GitHub is considered as the main platform for such publications and, therefore, TwinERGY software artifacts will be uploaded in the project profile in this platform (e.g., open source code versions produced). Prior to publication, TwinERGY partners should ensure that the software produced meets the quality standards and specifications set in their respective reports, providing information related to the software operation and use.

The Software Quality Assurance (SQA) process will respect and act supplementarily to the individual Quality Control and Assurance policy and procedures of technical partners, while it is intended to set a common basis of good practices for all partners and towards achieving the project QA goals. The quality control, however, will mainly rely on individual partner policies, as the type of software and the development techniques are mostly related to the partner expertise.

The Software Quality Assurance process in TwinERGY will involve partners in all stages of software development. It includes the designing of the software architecture under WP4, WP5 and WP6, the actual coding and testing in WP5, WP6, WP7 and WP8 and the debugging phase during the pilot demonstrations in WP9. Therefore, the SQA process will run during the whole duration of the project.

The software development follows a four-phase process (see next section) as far as the SQA is concerned and a set of best practices to be followed by all partners are provided. The set of good practices is produced to help technical partners meet their ultimate goal, which is a functional and timely software deliverable. The SQA aims to meet the software release and integration deadlines, fulfil all specifications, provide full functionality and user-friendly interfaces (for the pilots in particular). Due to the fact that modules will be produced in parallel by several partners as part of the work allocated under WP7 and will be integrated in the TwinERGY system at the same time as part of the work allocated under WP8, the following SQA rule is introduced. All software development teams shall provide functional prototypes for interface and integration validation three months ahead of the respected due dates. This is considered as a core rule in order to prevent any delays that might occur based on the parallel production of software.

In any case, the progress of the teams will be regularly monitored within the context of the project progress meetings and appropriate modifications will be proposed in order to ensure the smooth development and production of the overall system, in collaboration with the management team.

### 5.2.1 SQA good practices for TwinERGY technical partners

There are four main phases of the software development process related to SQA procedures, which have been previously identified. During these phases, several SQA good practices are introduced (shown later in Table 6) to be followed by the project partners. Starting from the software development phases, these include the following procedures:

**Phase 1 - Requirement phase:** During the software requirement specifications (SRS) process, the development team has to prescribe each of the essential requirements, propose the methodology to ensure that the product functionality is elucidated, and keep refining the SRS until the requirements are clearly described to all partners involved. Once this listing is completed, more information related to the above-mentioned features will be gathered based on the work allocated in each respective WP and the appropriate working groups of the project. This information will set the basis for the software design which follows.

**Phase 2 - Specifications and Design phase:** This phase in software development involves the actions related to the description of the components and sub-components of the software-to-be-developed. Another important aspect of this effort is the team management set up, which will support the specified product development, based on the requirements, the team availability and capability, and utilize the project schedule in a productive and organized manner.

**Phase 3 - Software Testing and Product Documentation phase:** During this phase, each partner Quality Control Plan is anticipated to prove its potential in practice, involving manual and automated tests and informal reviews. Test cases are proposed to be developed for internal software validation aiming at providing fully functional releases. Along with these releases, all software artifacts will be accompanied by design specification documents, i.e., internal documents describing the technical aspects of the software and user manuals. The manuals will provide information related to the data input and software limitations, describe actions and functions available for use, and provide a detailed documentation in relation to the software source code. Each of these documents, while not mandatory unless the condition of being publicly available as a deliverable, has to comply with the QA instructions provided earlier in this document related to project deliverables.

**Phase 4 – Software release:** The final phase of the production process incorporates the software release step. The software release is done in two forms and time spots, an early version for internal interoperability and pilot testing purposes provided three months ahead of the task due date and a full prototype of the software artefact at the task end. These fully functional software artifacts, when released either for internal use in pilot testing activities or as final public deliverables, have to obtain the approval (internal informal procedure) of the

partners involved in each production process, who will validate the functionality according to the specifications involving technical and non-technical tests. The final version of each software artifact will be a full prototype release accepted by the involved partners.

A summary of Quality Assurance Activities to be followed during the software development phases and towards ensuring smooth software development and release is presented in Table 6.

*Table 6. Software quality activities and related control*

<b>Software Development Phase</b>	<b>Software Quality Assurance Activity</b>
<b>Requirement phase</b>	<ul style="list-style-type: none"> <li>Review of the requirements mentioned in the DoA</li> <li>Analysis of related project internal reports and deliverables</li> <li>Review software requirements for assessing completeness, correctness and/or dependencies</li> <li>Facilitation of the informal review process and provision of all partners involved in this phase – with outcome analysis and validation methods</li> </ul>
<b>Specifications and Design phase</b>	<ul style="list-style-type: none"> <li>Review of the decided coding and documentation standards</li> <li>Analysis and review of the Test standards used as part of the quality control plan of each involved partner</li> <li>Review of the design and development methodology, the responsibilities and work schedule (design plan)</li> <li>Assessment of the proposed test plan and tools</li> <li>Facilitation of review process for all activities mentioned to obtain approval from partners involved</li> </ul>
<b>Software Testing and Product Documentation phase</b>	<ul style="list-style-type: none"> <li>Verification of traceability from requirements to design/development</li> <li>Verification of proper test implementation based on the proposed test plan</li> <li>Review of the design specification documentation to verify that all requirements are met (both functional and others)</li> <li>Verification that all public deliverables meet the quality assurance plan requirements</li> <li>Facilitation of review process for all activities to obtain validation from partners involved</li> </ul>

<b>Software release</b>	Verification of proper software release naming and versioning
	Verification that all software items are included in the released version
	Software validation assessment completion
	Acquirement of final approval from partners involved

## 5.3 Meeting procedures

Most TwinERGY meetings will be held on-line via secure video conferencing software (Microsoft Teams), which enables participants to exchange immediate messages, collaborate with files, and develop small and efficient team channels among people who work together in a specific task. Instead, key meetings, such as the annual General Assembly meeting, will take place in person, where conditions and safety considerations make that feasible (for instance, restrictions in attending face-to-face meetings have been set due to Covid-19 pandemic). For both online and in person meetings, common procedures for adding and sharing agenda items and for documenting the respective meeting minutes have been established.

### 5.3.1 Meeting Agenda

The chairperson of each TwinERGY meeting must prepare and distribute to consortium members a written (original) agenda no later than a minimum number of days preceding the meeting as indicated in deliverable D1.5 "Project Management Plan". The agenda should include all planned meeting activities as well as the order in which they are to be taken up. Any agenda item requiring a decision by the Members of a Consortium Body must be identified as such in the agenda. Any member of the consortium may add an item to the original agenda by written notification to all other members up to the minimum number of days preceding the meeting as indicated in Table 7.

*Table 7. Time requirement for adding agenda items*

Meeting type	Ordinary meeting	Extraordinary meeting
<b>General Assembly Meeting</b>	14 calendar days	7 calendar days
<b>Executive Board Meeting</b>	2 calendar days	2 calendar days
<b>Progress Meeting</b>	2 calendar days	2 calendar days
<b>Pilot Meeting</b>	7 calendar days	2 calendar days

The agenda template is provided on Annex 3 of this deliverable.

### 5.3.2 Meeting minutes

The meeting minutes are developed following the guidelines below:

- The chairperson of a Consortium Body will produce written minutes of each meeting which will be the formal record of all decisions made. The draft minutes will be sent to all Members within 15 calendar days following the meeting.
- The minutes will be considered as accepted if, within 15 calendar days from sending, no Member has sent an objection in writing to the chairperson with respect to the accuracy of the draft minutes.
- The chairperson will send the accepted minutes to all the Members of the Consortium Body and to the Coordinator, who will safeguard them. If requested, the Coordinator will provide authenticated duplicates to Parties.
- Within the Minutes document an Attendance list shall be provided, including the names of the attendees under the affiliation they are participating in the meeting.
- The meeting minutes should be kept in the TwinERGY Project Repository, under the respective Work Package, and Task.

The minute template is provided on Annex 4 of this deliverable.

## 5.4 Milestone monitoring and reporting procedures

In accordance to the provisions in deliverable D1.5 "Project Management Plan", all milestones identified in the TwinERGY project should be continuously monitored and their progress should be documented into the internal reports that are submitted by the Work Package Leaders to the Project Coordinator on a six-month basis. In addition, after reaching a milestone, the responsible partner (defined in the DoA), in cooperation with the Task Leader, has to create a short report using the template provided by the Project Coordinator. This report should be sent to the Work Package Leader for review. Once the respective report is approved, the WPL is responsible to notify the Project Coordinator and submit the document on the milestone achievement. The milestones achievement report template is provided in Annex 5.

To determine when and where key quality reviews need to take place, the project plan identifies seven major key milestones with relevant dependencies between different work packages, as listed in Table 8.

Table 8. List of TwinERGY milestones

Milestone Number	Milestone Title	Related WP	Lead beneficiary	Due Date	Means of verification
MS1	Site demonstrations design	WP2, WP9	UoP	M6	Stakeholders requirements report and obstacles analysis report.
MS2	Digital twin interconnected platform runs demand flexibility optimizations	WP6	IES R&D	M10	Demand flexibility models delivered.
MS3	Pilot demonstration start	WP9	UoP	M10	Pilot Site Design Report.
MS4	System's modules integration	WP5, WP8	ETRA	M12	Communication Platform is developed to allow modules interoperability.
MS5	Business plan development	WP7, W10	UoP	M19	Modules are developed and system tools have reached higher TRL.
MS6	Finalization of TwinERGY system	WP8, WP9	UoP	M25	Pilot Validation and Recommendation Report.
MS7	Project Completion	ALL	UoP	M36	Final recommendations delivered, all project tasks completed, and final progress report submitted.

## 5.5 Publication quality assurance procedures

During the Project and for a period of 1 year after the end of the Project, the publication of own Results by one or several Parties, shall be governed by the procedure of Article 29.1 of the Grant Agreement subject to the following provisions:

- Prior notice of any planned publication shall be given to other Parties at least 45 calendar days before the publication.
- The authors must send to the Project Coordinator as much information available in advance of a publication, which will include at least:
  - i. Authors
  - ii. Title
  - iii. Publication venue

- iv. Abstract
- Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator and to the Party or Parties proposing the dissemination within 30 calendar days after receipt of the notice. If no objection is made within this time limit, the publication is permitted.
  - An objection is justified if:
    - i. the protection of the objecting Party's Results or Background would be adversely affected
    - ii. the objecting Party's legitimate interests in relation to the Results or Background would be significantly harmed.
  - The objection has to include a precise request for necessary modifications. If an objection has been raised the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not unreasonably continue the opposition if appropriate measures are taken following the discussion.
  - The publication must include the following acknowledgement text:
 

*"This work has been funded by the European Union's Horizon 2020 research and innovation programme under the grant agreement No. 957736"*
  - The consortium will follow the green open access form for scientific publications, as described in deliverable D1.2 – "Data Management Plan". Green open access or self-archiving means that the published article or the final peer-reviewed manuscript is archived by the researcher him or herself in an online repository, in most cases after its publication in the journal. In this regard, the journal has to grant the researcher the permission to self-archive the final peer-reviewed article, for as far as 12 months after publication.

## 5.6 Quality assessment procedures and reporting

In the context of quality assessment of operations and processes, an important function is the identification of areas of nonconformity using the pre-defined Key Performance Indicators (Chapter 4 of the present deliverable). If nonconformities are identified, they should be documented by the Quality Assurance Officers in the appropriate form (Annex 6), where all recommended corrective actions to be applied should be also described and uploaded to the project document repository.

Proposals on corrective actions should be suggested by the Quality Assurance Officers and be approved by the Project Coordinator. After the approval is acquired, the Quality Assurance Officers should contact all involved partners, deliver the Quality Assurance

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Assessment Report on their task, and inform them about the recommended corrective measures to be taken.

Corrective actions should ensure:

- Effective handling of all complaints
- Reporting of nonconformities
- Investigation of the causes of non-conformities with reference to the quality system
- Recording the results of the investigation
- Determining the preventive/corrective actions intended to eliminate the causes of the nonconformity
- Application of control tools for effective implementation of corrective actions
- Information communication with the Partners on actions taken and results accomplished



# Annexes


## Annex 1 – Deliverable reviewers

No.	Deliverable	WP	Task	Date	Leader	Reviewer 1	Reviewer 2	Additional Reviewers	
1	D1.1 Project Management Handbook	WP1	T1.1	6	UoP	TH OWL	UNIVBRIS		
2	D1.2 Data Management Plan		T1.5	6	UoP	SUITES	ARTHUR'S LEGAL		
3	D1.3 Quality Assurance Plan		T1.1	6	UoP	TH OWL	UNIVBRIS		
4	D1.4 IPR Roadmap		T1.5	36	UoP	SUITES	ARTHUR'S LEGAL		
5	D1.5 Project Management Plan		T1.1	2	UoP	TH OWL	UNIVBRIS		
6	D1.6 Project Management Plan-Revision 1		T1.1	18	UoP	TH OWL	UNIVBRIS		
7	D1.7 Project Management Plan-Revision 2		T1.1	36	UoP	TH OWL	UNIVBRIS		
8	D2.1 Best practice guidelines for engaging citizens in the pilots and metrics for diversity and inclusion	WP2	T2.1	8	KWMC	IFC	UNIVBRIS		
9	D2.2 Stakeholders analysis: KPIs, Scenarios and Use Case Definition		T2.2	8	UNL	WEC P.L.C.	ED LUXEMBOURG		
10	D2.3 Business Models & Incentive Schema Definition		T2.3	8	WEC P.L.C.	MYTILINEOS	STAM		
11	D2.4 Technical obstacles to innovation analysis		T2.5	8	ED LUXEMBOURG	SUITES	ETRA		
12	D2.5 Social, ethical and cultural barriers to innovation		T2.4	6	smartEn	UNL	KWMC		
13	D3.1 TwinERGY – European Projects Innovation and Cooperation roadmap	WP3	T3.1, T3.2	8	ED LUXEMBOURG	smartEN	UoP	MYTILINEOS, ETRA	
14	D3.2 TwinERGY – European Projects Innovation and Cooperation report		T3.1, T3.2	36	ED LUXEMBOURG	smartEN	UoP	MYTILINEOS, ETRA	
15	D4.1 Consumers Behavioural Analysis	WP4	T4.1	10	UNL	UoP	WEC P.L.C.		
16	D4.2 Consumer Engagement Plan		T4.2	11	UNL	WEC P.L.C.	UNIVBRIS		
17	D4.3 Methodological Framework		T4.3	10	UNIVBRIS	IES R&D	ED LUXEMBOURG		
18	D4.4 System's architecture		T4.4	12	ETRA	IES R&D	SUITES		
19	D5.1 TwinERGY Common Information Model	WP5	T5.1-T5.4	10	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
20	D5.2 Data Collection, Security, Storage & Management Services Bundles – Beta Release		T5.1-T5.4	14	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
21	D5.3 TwinERGY Integrated Data Management Platform – Alpha, Mock-ups Release		T5.1-T5.4	14	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
22	D5.4 TwinERGY Integrated Platform– Beta Release		T5.1-T5.4	16	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
23	D5.5 Data Collection, Security, Storage & Management Services Bundles – Release 1.00		T5.1-T5.4	20	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
24	D5.6 TwinERGY Integrated Data Management Platform– Release 1.00		T5.1-T5.4	24	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
25	D5.7 Data Collection, Security, Storage & Management Services Bundles – Release 2.00		T5.1-T5.4	28	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
26	D5.8 TwinERGY Integrated Data Management Platform– Release 2.00		T5.1-T5.4	32	SUITES	ETRA	TH OWL	ED LUXEMBOURG	
27	D6.1 System dynamics models	WP6	T6.1	12	UNIVBRIS	UoP	IES R&D		
28	D6.2 Demand flexibility models		T6.2	12	IES R&D	STAM	WEC P.L.C.		
29	D6.3 Customer digital twin		T6.3	12	UoP	IES R&D	STAM		
30	D6.4 Digital twin interconnected platform		T6.4	12	IES R&D	SUITES	STAM		
31	D7.1 Modules' Interoperability	WP7	T7.1	8	ETRA	SUITES	IES R&D		
32	D7.2 Consumer well-being module		T7.2	18	UoP	STAM	IES R&D		
33	D7.3 Home & Tertiary realtime Energy Monitoring Module		T7.4	18	STAM	TH OWL	IES R&D		
34	D7.4 Consumer and Neighborhood demand flexibility profiling Module		T7.3	18	IES R&D	ETRA	STAM		
35	D7.5 RES integration and DER management Module		T7.5	18	TH OWL	STAM	IES R&D		
36	D7.6 Electric Mobility as a Service Module		T7.6	18	ETRA	UoP	UNIVBRIS		
37	D7.7 Transactive Energy Module		T7.7	18	WEC P.L.C.	UoP	SUITES		
38	D7.8 Customer Deployment and Social Engagement Module		T7.8	18	ED LUXEMBOURG	UNL	IFC		
39	D7.9 Risk Management and event handling Module		T7.9	18	STAM	UoP	UNIVBRIS		
40	D8.1 TwinERGY connectors to distributed smart grid assets and respective APIs	WP8	T8.1	18	ETRA	SUITES	ED LUXEMBOURG		
41	D8.2 TwinERGY Pre-trial validation testing scenarios and results		T8.2	24	ETRA	SUITES	ED LUXEMBOURG		
42	D8.3 TwinERGY integrated solution		T8.3	24	ETRA	SUITES	ED LUXEMBOURG		
43	D9.1 Pilot Quality assurance Guide	WP9	T9.1	10	TH OWL	UoP	UNIVBRIS	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim	
44	D9.2 General Pilot Management Plan		T9.2	10	TH OWL	UoP	UNIVBRIS	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim	
45	D9.3 Report of TwinERGY Ecosystem and module Benchmarking on real life testing		T9.3	36	UoP	ETRA	UNIVBRIS	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim	
46	D9.4 Pilot Demonstration impact and Recommendations		T9.4	36	UoP	TH OWL	UNIVBRIS	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim	
47	D10.1 Business analysis / Exploitation potential plans	WP10	T10.1	27	WEC P.L.C.	smartEN	MYTILINEOS		
48	D10.2 Business opportunities validation		T10.2	32	UNIVBRIS	WEC P.L.C.	MYTILINEOS		
49	D11.1 Communication guidelines, website, social media	WP11	T11.1	36	IFC	UoP	KWMC		
50	D11.2 Communication and Dissemination Plan		T11.2	3	UoP	IFC	smartEN		
51	D11.3 1st European Workshop with stakeholders		T11.2	23	KWMC	smartEN	UoP	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim	
52	D11.4 2nd European Workshop with stakeholders		T11.2	34	IFC	KWMC	smartEN	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim	
53	D11.5 Citizen Learning activities/events and report		T11.3	33	KWMC	IFC	BENETUTTI	MYTILINEOS, BENETUTTI	
54	D11.6 Energy Futures Videos		T11.4	34	IFC	KWMC	UNIVBRIS	MYTILINEOS, BENETUTTI	
55	D11.7 Consumer Engagement Handbook		T11.3	36	IFC	KWMC	UNIVBRIS		
56	D12.1 Legal & Ethical Compliance Guide		WP12	T12.1	9	ARTHUR'S LEGAL	UoP	UNL	
57	D12.2 1st Legal & Ethical Compliance report			T12.2	24	ARTHUR'S LEGAL	UoP	UNL	
58	D12.3 2nd Legal & Ethical Compliance report			T12.2	36	ARTHUR'S LEGAL	UoP	UNL	
59	D12.4 Regulatory Recommendations and Standardization	T12.3		36	smartEn	UNL	UoP		
60	D12.5 Data Use License template	T12.4		12	KWMC	IFC	ARTHUR'S LEGAL		
61	D13.1 H - Requirement No. 1	WP13	T13.1	3	UoP	ARTHUR'S LEGAL, TH OWL, UNIVBRIS	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim		
62	D13.2 POPD - Requirement No. 2		T13.2	3	UoP	ARTHUR'S LEGAL, TH OWL, UNIVBRIS	MYTILINEOS, BCC, BENETUTTI, Stadt Steinheim		

## Annex 2 – Deliverable review template

Deliverable internal review template				
Deliverable No.				
Deliverable Name				
Deliverable Leader				
Deliverable author(s)				
Work Package No.				
Work Package leader				
Reviewing Schedule		Date planned	Date received	Data reviewed
Reviewer 1				
Reviewer 2				
Additional reviewer(s) - if appropriate				
Reviewer				
Primary review method (mark X)	Track changes (directly into deliverable)	<input checked="" type="checkbox"/>	Comment sheet (below)	<input checked="" type="checkbox"/>
Review Summary				
<p>Please rate the deliverable on the points below using the following criteria:  <b>RED:</b> Major revisions required before the deliverable is at acceptable standard.  <b>YELLOW:</b> Some revisions required before the deliverable is at acceptable standard.  <b>GREEN:</b> Deliverable is at acceptable standard and/or minor revisions are required.</p>				
Description	Rating	Comments		
<b>Deliverable relevance</b> <i>The deliverable fully documents relevant work carried out in the corresponding task. It addresses the project objectives and is in line with the DoA.</i>	RED/YELLOW/GREEN			
<b>Deliverable technical quality</b> <i>The deliverable presents sound methodology and argumentation.</i>	RED/YELLOW/GREEN			
<b>Deliverable presentation</b> <i>The deliverable is clear and well written in terms of language, structure and presentation of contents.</i>	RED/YELLOW/GREEN			
<b>Deliverable compliance</b> <i>The deliverable is written in line with the deliverable template and follows the standard file format and naming convention.</i>	RED/YELLOW/GREEN			
<b>Deliverable completeness</b> <i>The deliverable has no missing parts/references, not covered topics.</i>	RED/YELLOW/GREEN			
<b>Deliverable added value</b> <i>The deliverable has scientific and/or policy value.</i>	RED/YELLOW/GREEN			
<b>Overall rating</b>	RED/YELLOW/GREEN			
<b>Comment sheet - If you have not added comments directly to the deliverable document, please detail required comments here:</b>				

## Annex 3 – Agenda template



# MEETING AGENDA

**TwinERGY Meeting:**

<b>Date of meeting:</b>		<b>Start Time:</b>		<b>End Time:</b>	
<b>Location:</b>		<b>Meeting facilitator:</b>		<b>Minute Taker:</b>	

**Meeting Objectives:**

**Agenda items**

Topic	Presenter	Time allocated

**Other information:**

## Annex 4 – Minutes template




MEETING MINUTES

TwinERGY Meeting:					
Date of meeting:		Start Time:		End Time:	
Location:		Meeting facilitator:		Minute Taker:	

ATTENDANCE LIST		
No.	Attendee	Affiliation

MEETING NOTES		
No.	Agenda topic	Discussion/notes

ACTIONS			
No.	Action	Responsible	Due date

## Annex 5 - Milestones achievement report template

<b>Milestones achievement internal report template</b>	
Author(s)	
Milestone No.	
Milestone Title	
Related WP(s)	
Lead Beneficiary	
Estimated Delivery Date Set in the DoA	
Actual Delivery Date	
<b>Milestone Description</b>	
<b>Role of milestone</b> <i>Provide detailed information about the milestone and its significance to the project.</i>	
<b>Means of verification</b> <i>Provide detailed information about how the milestone has been reached and explain all the verification measures that have been used.</i>	

## Annex 6 – Quality assurance assessment report template

QUALITY ASSURANCE ASSESSMENT REPORT			
Assessment No:		Date:	
Document Ref:			
Process assessed:			
Assessor:			
Affiliation:			
OBSERVATIONS/FINDINGS			
1.			
2.			
3.			
ACTION REQUIRED	DUE DATE	IMPLEMENTATION DATE	
1.			
2.			
3.			
RECOMMENDATIONS FOR QUALITY IMPROVEMENTS			
1.			
2.			
3.			
Assessor:		Assessment date:	
FOLLOW UP ASSESSMENT – DETAILS OF ACTION TAKEN			
Assessor:		Assessment date:	