AUDIT2MEASURE

D1.1 Project Quality Management Plan

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Dissemination level	
X	PU – Public
	PP – Restricted to other program participants (including the EC)
	RE – Restricted to a group specified by the consortium (including the EC)
	CO – Confidential, only for members of the consortium (including the EC)

DOCUMENT HISTORY

Version	Date	Main modification	Entity
V0.1	23-12-2022	Draft version shared for review	IEECP
V0.2	27-12-2022	First Quality review	RSE
V1.0	28-12-2022	Deliverable ready for submission	IEECP
V1.1	30-12-2022	Final check by project coordinator	RSE

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LEGAL NOTICE

ABOUT

Industry is a key player in energy consumption and economic impact in the European Union (EU) and energy audits represent an important tool to improve energy efficiency in the sector; despite both the spread of energy audits and the knowledge of their benefits, the actual implementation rate of the Energy Savings Measures (ESM) proposed by energy audits is relatively low. **The main aim** of the AUDIT-TO-MEASURE (Leading business towards climate neutrality by speeding up the uptake of energy efficiency measures from the energy audits) project **is to support companies in the uptake of audits measures necessary to reduce the energy consumption supporting their energy transition**. AUDIT-TO-MEASURE will develop and implement a new engagement strategy (called "Audit2Action") to put into action the opportunities emerging from energy audits.

The project has received funding from the European Union's LIFE research and innovation program under grant agreement No 101075785.

PROJECT PARTNERS

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ABBREVIATIONS

AB	Advisory Board
CA	Consortium Agreement
DPO	Data Protection Officer
DM	Dissemination Manager
DMP	Data Management Plan
EB	Executive Board
EC	European Commission
EM	Exploitation Manager
EU	European Union
KES	Knowledge Exchange Space
KPI	Key Performance Indicator
IPR	Intellectual Property Rights
PEDR	Plan for the Exploitation and Dissemination of Results
PC	Project Coordinator
PO	Project Officer
TL	Task Leader
GA	Grant Agreement
GDPR	General Data Protection Regulation
QM	Quality Manager
QMP	Quality Management Plan
SAEP	Stakeholder Analysis and Engagement Plan
WP	Work Package

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EXECUTIVE SUMMARY

This document details the Quality Management Plan (QMP) for the AUDIT-TO-MEASURE project and describes the project management principles including the quality assurance provisions for safeguarding project outcomes. It describes the roles and responsibilities per project participant and external stakeholder groups, description of the Advisory Board, method of progress reporting and monitoring, as well as identification and management of critical risks.

Adequate quality assurance and risks mitigation measures are put in place for the project to ensure results, namely those of deliverable reports, methodologies, capacity building materials and project milestones are of high quality scientifically sound and offer value to the project stakeholders in line with what was promised. The underlying management and quality assurance mechanisms, as described in this document, are obligatory to all partners, while they aim at complementing what described in the Grant Agreement and the Consortium Agreement of the project.

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1. INTRODUCTION

Purpose and Scope

Purpose of the quality management plan is to establish the roles, procedures and supporting documents that ensure the quality of the project outputs and project management activities. The plan is to ensure that the AUDIT-TO-MEASURE project is implemented correctly and that all project outcomes and results, often captured through the projects deliverables and milestones are of high quality and carry scientific value.

In this context, the purpose and scope of the project quality management plan are defined as:

- Setting clear roles and responsibilities to all partners within the consortium;
- Establish the underlying processes that ensure quality of the project deliverables, milestones and other project management activities;
- Clearly present the coordination and communication channels and processes among partners, which will be used throughout the project lifetime.

The quality and technical assurance and control system for the project will be revised occasionally throughout the projects duration. This is done on purpose as it assures the processes relevance with the project's status as these might alter throughout its duration. It is mandatory for all consortium partners to comply to the requirements set in this document.

In general the QMP objectives are to:

- Check the quality of activities versus what is described in the Grant Agreement (GA);
- Define the risk and contingency plan in case of deviations;
- Set out and assign the partners roles and responsibilities.

Structure

The document is structured as follows:

- Section 2 provides the overview of the project governance, management and responsibilities;
- Section 3 presents the Advisory Board and their involvement in the project tasks and deliverables;
- Section 4 presents the quality review process put in place;
- Section 5 gives the overview of the work planning and monitoring and control activies.

2. PROJECT MANAGEMENT AND GOVERNANCE STRUCTURE

To ensure effective coordination, communication and collaboration throughout the project duration, a well defined management and coordination structure is created. It is designed to ensure simple but effective management and coordination between the consortium partners.

The management structure guarantees flexibility coordinating the various project activities, a clear decision process and a clear identification of potential risks and unforeseen situations.

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It lays out the interaction processes with stakeholders relevant to the project activities, without affecting the direct participation of all partners.

The roles and associated tasks defined within the project are represented in the project governance structure visually represented in the schematic below (fig.1). These roles are also defined in the projects Consortium Agreement (CA) and Grant Agreement (GA).

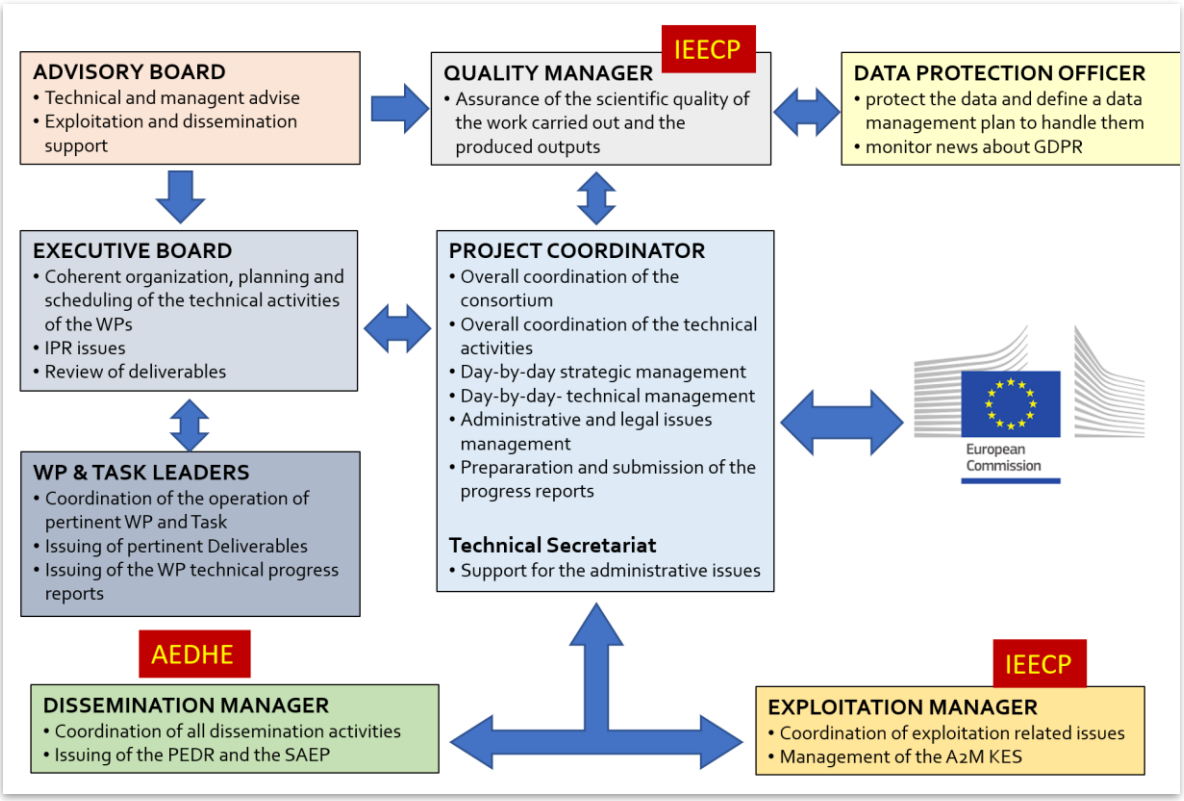

Figure 1: The Audit-to-Measure Governance structure

Advisory Board (AB) – Constitutes of a group of relevant and skilled experts which are personally invited and selected to provide steering advice and support the project in its exploitation and dissemination activities.They can be asked to critically revise the quality of the main project deliverables and receive comments and suggestions so that they can be incorporated in the revised documents.

Executive Board (EB) – Constitutes of the project coordinator (RSE) and the Work Package Leaders. This is at the core of the projects steering and coordination activities and ensure the coherent organization, planning and scheduling of the technical activities. Also in case of any encountered Intellectual Property Right (IPR) issues will be discussed with the EB, QM and DPO.

Quality Manager (QM) – Tasked with ensuring the scientific quality of the work carried out by the partners is adequate and sound. Two reviewers are assigned per deliverable, as well the involvement of the AB is expected to assist in this task and make sure all project outputs adhere to a certain level of quality.

Project Coordinator (PC) – Responsible for the overall coordination between the project partners and the delivery of all technical activities. PC is mainly involved and concerned with

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the managmenet of the day-to-day activities, strategic managment, technical management and is responsible for resolving administrative and/or legal issues; moreover, PC is the main interface for communication between the project and the European Commission (EC) Project Officier (PO).

Data Protection Officer (DPO) – Responsible for carrying out all data management and protection tasks and activities as described in the data management plan. Makes sure all partners adhere to the protocols set and agreed to.

Work Package & Task Leaders (WPL & TL) – Responsible for carrying out the work as defined in the WP description and underlying Task Descriptions. WPL are responsible for coordinating between the underlying TL and communicating the WP activities to the other members of the consortium, while TL are responsible for communication and coordination within the specific WP.

Dissemination Manager (DM) – Coordinates the projects dissemination activities and makes sure these happen strategically and are in line with the processes and plan defined in the projects Plan for the Exploitation and Dissemination of Results (PEDR) and Stakeholder Analysis and Engagement Plan (SAEP).

Exploitation Manager (EM) – Responsible for the future exploitation of the projects outputs and activities. It is envisaged that this will happen primarily through the resulting Knowledge Exchange Space (KES) developed over the course of the projects activities.

Day-to-day activity coordination

Although all roles are essential, not all roles participate in the the day-to-day operations of the projects activities. A more general representation of the projects internal, day-to-day, roles and responsibilities is presented below (fig.2).

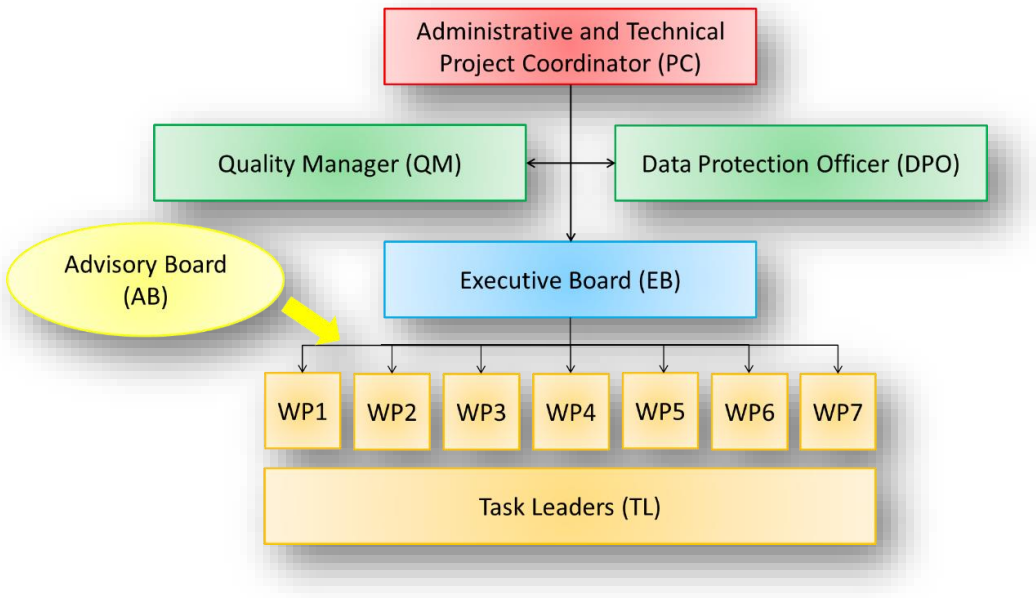

Figure 2: AUDIT-TO-MEASURE managment and coordination of day to day activities

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Timeline of Coordination Activities

The first step taken to ensure adequate quality management and coordination is the planning of internal & externally faced meetings which allow for collaboration and resolving of potential issues. Below (fig.3) an overview of the project planned meetings is given. This overview can, and likely will, change over the course of the project but represents the original planning of the projects internal coordination meeting events.

MEETINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
with EU Commission	MC																		RMC
Consortium meetings	CM									CM									CM
Executive Board meetings	EB			EB			EB			EB			EB			EB			EB
Advisory Board meetings	AB									AB									AB
Ordinary meetings																			
WP4 activities with companies																			
WP5 Workshops										X									
Dissemination conference/workshop (WP7)																			X
KES launch (WP6)												X							X
Dissemination webinars (WP7)											X								

MEETINGS	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	+1	+2
with EU Commission	RMC																			RMC
Consortium meetings	CM									CM								CM		
Executive Board meetings	EB			EB			EB			EB			EB			EB		EB		
Advisory Board meetings	AB									AB								AB		
Ordinary meetings																				
WP4 activities with companies																				
WP5 Workshops												X								
Dissemination conference/workshop (WP7)	X																	X		
KES launch (WP6)	X																X	X		
Dissemination webinars (WP7)				X												X				

In-person meeting with possibility for online participation
Online meeting

Figure 3: AUDIT-TO-MEASURE coordination meetings planning overview

3. ADVISORY BOARD

Essential to ensure the highest possible quality of deliverables and activities is through active participation and steering guidance offered by an external Advisory Board.

An overview of the members of the AUDIT-TO-MEASURE Advisory Board is given below (table 1). All project partners are continously reminded to involve members of the board in their project activities, this is especially essential in the tasks initial design and development of activities, and the final deliverable review. Steering advice during task implementation is also beneficial and will further help ensure the highest quality of the activity implementation, however due to the timing might be less impactfull then during task initiation and final output review.

The involvement of the Advisory Board is encouraged throughout all day-to-day operations and partners are encouraged to reach out to, and involve, the AB members inputs whenever a deliverable is due or a task is initiated. Besides the general involvement, regular AB meetings are scheduled according to the meeting planning schedule (fig.3) above.

Table 1: AUDIT-TO-MEASURE Advisory Board Members (December 2022)

#	Name	Organization	Country
1	Luis Mundaca	Lund University	Sweden
2	Riccardo Monti	Confindustria Emilia	Italy
3	Dr. Tatjana Ruhl	DENEFF	Germany

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4	Gabriele Centi	University of Messina, President of ERIC	Italy
5	Alice Corovessi	INZEB, Association of Energy Engineers - GR chapter	Greece
6	Julia Dorval	WBCSD (World Business Council for Sustainable Development)	Switzerland
7	Manuela Manzano	ISOVER Saint-Gobain	Spain
8	Nicoletta Ravasio	CNR SCITEC	Italy
9	Stefano Stendardo	ENEA	Italy
10	Javier de la Morena	WEG electric motors and more	Spain
11	Dario Di Santo	FIRE	Italy
12	Christina Hatzilau	MBENEFITS project (NTUA)	Greece
13	Karellas Sotiris	MBENEFITS project (NTUA)	Greece
14	Andrea Angeletti	NextChem	Italy

1. Luis Mundaca - Professor at the International Institute for Industrial Environmental Economics at Lund University (Sweden):

- *His expertise lies at the interface between behavioural and environmental economics as applied to energy use, sustainable transport, behavior change and policy experimentation.*

2. Riccardo Monti - Head of Environment, Health and Safety, Energy and Territory Department at Confindustria Emilia Area Centro (Italy):

- *Territorial energetic development, waste management, greenhouse gases emissions, environmental assessment, energy regulation and certification.*

3. Tatjana Ruhl - Policypreneur-Head of Decarbonization of Industry at DENEFF (Germany):

- *Energy-efficiency, decarbonization, energy-policy.*

4. Gabriele Centi - Professor at University of Messina and Tianjin University and president of ERIC (Eur. Res. Inst. Catalysis) (Italy):

- *Heterogeneous Catalysis, Sustainable chemical production, Energy Conversion and Storage, in particular Solar Fuels (SUNERGY).*

5. Alice Corovessi - Managing Director, INZEB, Vice President of BoD, WEnCoop Energy Cooperative and Vice Chair of Renovate Europe Campaign 2022 (Greece):

- *Advocate and strategist for buildings energy efficiency and renovation, energy poverty mitigation, and evolution of energy communities.*

6. Julia Dorval - Key Account Manager at WBCSD (Switzerland):

- *Sustainable business, tackling of climate, nature and inequality challenges across sectors and geographical areas, delivery of impact business solutions to challenging sustainability issues.*

7. Manuela Manzano Zahino - Head of Industry Market at Saint Gobain ISOVER (Spain):

- *Global business and marketing addressed to engineering, construction, and industrial sectors.*

8. Nicoletta Ravasio - Associate Research Director at CNR-SCITEC (Italy) and Adjunct Prof. At VIT Chennai (India):

- Bio-based esters and ethers as fuel extenders, Biodiesel and H_2 production from formic acid and alcohols, catalytic processes for the development of the Biorefinery concept and food waste valorization.

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9. Stefano Stendardo - Principal investigator and scientific manager of the ECCSEL Research Infrastructure ZECOMIX (Zero Emission of Carbon with MIXed technologies) (Italy):

- *H_2 production intensified with CO_2 capture.*

10. Javier de la Morena - Head of Sales and Marketing at WEG (SPAIN):

- *Electrical and electronic solutions for industrial sectors, energy-efficiency solutions, renewable energies, and industrial automation.*

11. Dario Di Santo - Managing Director at FIRE (Italy):

- *Development of programs and services aimed at the association members and Italian energy manager network.*

12. Christina Hatzilau - Lab of Steam Boilers & Thermal Plans - NTUA (Greece);

13. Karellas Sotiris - Lab of Steam Boilers & Thermal Plans - NTUA (Greece):

- *R&D, Energy efficiency for thermal plants, Integration of renewable energy sources in thermal processes, technical cutting-edge expertise.*

14. Andrea Angeletti – Head of Business Development Department - NextChem (Italy):

Circular economy, Green Chemistry, Heterogeneous Catalysis, Business impact solutions for industrial chemical processes.

It is up to the partners discretion how, when and who to involve during their task implementation. This is done as to ensure AB members are involved only where it makes sense, e.g. close to their field of expertise. The project coordinator (RSE) and QM (IEECP) will do the periodic review assement for potential involvment of AB members in certain tasks as these have the best overview of activities in each of the WPs.

4. REVIEW PROCESS

The WP leaders are responsible for their assigned (task) deliverables and submit these before their expected due date to the PC who is responsible for releasing the deliverable, either publish publicly and/or submit to the EC via the EU portal.

Any changes made after the document's release/submission are tracked through the document history table (page 1) with the responsible partner tracking the changes by providing the modification summary and updating the version number. When a deliverable is released, version 1 is assigned to it.

Review process of the deliverables

All deliverables undergo a quality control process prior to approval and release. The internal approval of the deliverables is considered complete after successful completion of the quality control process (fig.4) Through this process, each deliverable is reviewed based on:

- **Content**: if the content of the deliverable relevant, and does it meet the objectives as set out in the Work package and Task description, taking into consideration any necessary circumstantial changes;
- **Quality**: whether the quality of the deliverable meets the specifications and standards set by the project consortium. This initially applies to the content itself but

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extends to the overall design, layout, use of language and other related aspects (more on these aspects below);

- **Structure, format and appearance**: wherever applicable, deliverables are to be developed and released using the model template defined for the project;
- **Data/information**: a cross-check is made to ensure no contradictions between deliverables exist. Depending on the deliverable some overlap in the information might occur, however the deliverables are designed to each have a unique added value;
- **Accordance with the timetable**: a check of the delivery date, which must be in line with the one agreed;
- **Attached documents**: a check to ensure all necessary, and only relevant, documents are attached. In other words, this review process will limit as much as possible the amount of annexes and will review whether specific content should be included in the deliverable, moved to the annexes, or be left-out entirely.

Keeping the above in mind a "typical" 3-step quality control process is followed before submission and/or release of each deliverable, and when applicable, project milestones.

1st Quality check

The 1st quality check is done by the responsible partner. After this initial self-review and upon approval, the deliverable is submitted to the related tasks WP leader and to one additional partner (keeping the QM & PC in copy during all steps of this process), both the WP leader and the additional partner will act as quality reviewers. In case, the WP leader is responsible for the preparation of the deliverable, the quality control shall be performed by a project partner involved in the WP and one additional partner with related expertise. Involvement of one actively involved and one "external" partner is done on purpose as they provide two unique perspectives in the review process.

2nd Quality check

The assigned quality reviewers are responsible for the 2nd quality check. The 1st and 2nd reviewers examine if there are any remarks to be made. Comments and suggestions for improvement or discussion are made in the shared document directly. The reviewers perform the quality review, typically, within **10 working days after receiving the delivery**. In this context, the partner assigned as 1st quality reviewer provides a single annotated document (i.e. with track changes, comments, suggestions for improvement and/or alteration) to the responsible partner. Wherever possible, and typically when in mutual understanding, the **adaptations are made within 5 working days**. If necessary, the responsible partner can contact the quality reviewers for clarifications regarding the received comments.

In case an unresolvable disagreement is found between the responsible partner and the quality reviewer(s) the PC & QM are involved to support in this process and decide on the appropriate course of action. For instance, initiate the request for extension, involve other consortium partners, decide on setting up an emergency meeting, or whatever action is deemed necessary to resolve the disagreement.

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The rule of 2 reviewers per deliverable is not applied on deliverables that describe project management processes and strategies binding to the consortium, such as this QMP. This type of deliverable is to be reviewed and accepted by all partners within the consortium before submission and/or release and to both ensure partners are aware of and reach consensus on important administrative processes and strategies being put in place.

The internal preparation and quality control process is monitored by the QM (IEECP) & PC (RSE). The partners responsible for the deliverables along with the quality reviewers assigned to each are listed in a separate quality management and review process spreadsheet used for this purpose, a copy of which is provided in this document (annex 1). The associated quality reviewers can change, for instance in case of timing issues encountered. The QM (IEECP) is responsible for applying any changes to the list and is to be consulted whenever issues arise.

3rd Quality check

The final version of the deliverable is submitted by the responsible partner directly to the PC & QM for a final quality check and submission to EC. Below (fig. 4) an overview of the review process applied in the AUDIT-TO-MEASURE project is displayed.

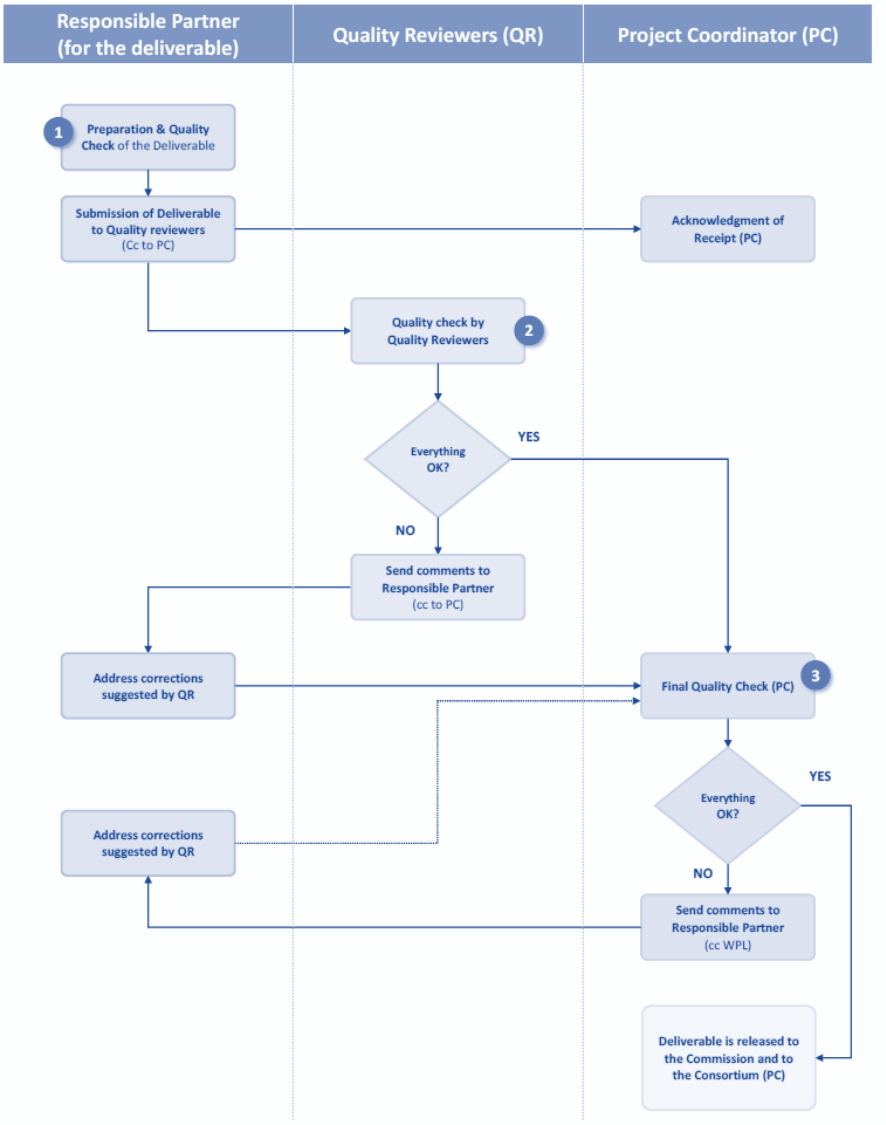

Figure 4: Internal Quality Review Process

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5. WORK PLANNING, MONITORING AND CONTROL

The work plan is divided into 7 work packages (WP) and each WP into respective tasks. The workplan of the project is presented in the GA and specifically details:

- the WP and underlying tasks, including the responsible partner(s);
- the duration, start and end dates for each task and overarching WP, including the project GANTT Chart;
- the associated deliverables, both public and non-public (see classification);
- the milestones of the project.

Any modification or changes to the work-plan that do not affect the overall project can be approved by the PC and communicated internally and require no further escalation. Any changes that are more significant and that do have an impact on the project will always be communicated and discussed with the PO of the AUDIT-TO-MEASURE project.

In case the consortium fails to submit a deliverable to the Commission on time, the PC should inform the Commission before the deadline, justify the delay and suggest a new deadline. For this reason, all partners should give early warnings about delays to the respective WPL and the WPL to the PC (see also Section 6.5 Risk Management of the current document).

Project in-person meetings

A total of 5 in-person, consortium wide, meetings are planned (fig.3). The PC and the QM, supported by all partners, are responsible for the preparation of minutes for all project meetings. The meeting minutes are circulated to all partners for approval afterwards via email and added to the project shared drive.

Progress monitoring

Internal monitoring of the projects progress happens through a combination of deliverable and milestone due date tracking, internal coordination meetings ((bi-)weekly), the periodic reporting, and the projects predetermined key performance indicators (KPIs) as defined in the GA, as well as the LIFE key project specific indicators monitored and tracked through the LIFE KPI Webtool.

The PC is the final responsible for the preparation and timely submission of the project periodic reports to the Commission. All partners provide the necessary input for the preparation of the reports, leaving enough time for drafting, review and submission by the PC.

An overview of the projects internal and predetermined KPIs is presented (annex 2).

Risk management

Risks that may affect the progress and quality of implementation of the project were identified at the proposal phase and relevant contingency plans were elaborated and included in the final GA (annex 3).

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ANNEXES

ANNEX 1: ASSIGNED QUALITY REVIEWERS

Table 2: Quality Review Process Assignment Table

Delivera-ble No	Deliverable Name	Work Package No	Lead Beneficiary	Quality Reviewer 1	Quality Reviewer 2	Draft ready for Review by (month)	Final Due Date (month)
D1.1	Project quality management plan	WP1	2 - IEECP	1 - RSE	All	1	2
D1.2	Protocol on data management processes in the AUDIT-TO-MEASURE project	WP1	2 - IEECP	1 - RSE	All	2	3
D1.3	Technical progress report	WP1	1 - RSE	2 - IEECP	All	8	9
D1.4	Extract of the AUDIT-TO-MEASURE data from the LIFE KPI webtool - 1st edition	WP1	1 - RSE	9 - AEDHE	All	8	9
D1.5	Extract of the AUDIT-TO-MEASURE data from the LIFE KPI webtool - 2nd edition	WP1	1 - RSE	2 - IEECP	All	35	36
D2.1	Report of state-of-the-art auditing system and ESM implementation	WP2	3 - ADELPHI	6 - NTUA	4 - ESCAN	5	6
D2.2	Report of top management decision process	WP2	3 - ADELPHI	1 - RSE	5 - POVAS	5	6
D2.3	Report of barriers affecting the uptake of ESM in companies	WP2	3 - ADELPHI	2 - IEECP	6 - NTUA	8	9
D3.1	The Audit2Action strategy: a new approach to upgrade energy audit outcomes	WP3	6 - NTUA	3 - ADELPHI	7 - HERA	10	11
D3.2	Assessment of energy savings measures to support the strategy of decision makers and of companies' energy management maturity	WP3	6 - NTUA	4 - ESCAN	8 - ENVIROS	12	13
D3.3	Marketing the strategic energy-saving measures from energy audit outcomes and ISO 50001 to support management level strategy	WP3	4 - ESCAN	5 - POVAS	9 - AEDHE	13	14
D4.1	Report on capacity building in companies - 1st edition	WP4	8 - ENVIROS	7 - HERA	10 - CCIK	14	15
D4.2	Training course	WP4	8 - ENVIROS	3 - ADELPHI	1 - RSE	16	17
D4.3	Report on training workshops for energy experts and industry associations - 1st edition	WP4	8 - ENVIROS	9 - AEDHE	2 - IEECP	23	24
D4.4	Report on capacity building in companies - 2nd edition	WP4	8 - ENVIROS	10 - CCIK	3 - ADELPHI	35	36
D4.5	Report on training workshops for energy experts and industry associations - 2nd edition	WP4	8 - ENVIROS	4 - ESCAN	5 - POVAS	29	30
D5.1	Report on the internal training workshop and methodology for application of energy efficiency measures	WP5	4 - ESCAN	8 - ENVIROS	6 - NTUA	10	11
D5.2	Case-studies tables - 1st edition	WP5	7 - HERA	5 - POVAS	4 - ESCAN	16	17

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D5.3	Report with results of the energy efficiency measures and including also digital tools to the business and how to improve the corporate level culture.	WP5	4 - ESCAN	6 - NTUA	7 - HERA	35	36
D5.4	Case-studies tables - 2nd edition	WP5	7 - HERA	8 - ENVIROS	9 - AEDHE	35	36
D6.1	A2M Knowledge Exchange Space functionalities and results	WP6	2 - IEECP	7 - HERA	8 - ENVIROS	19	20
D6.2	After-LIFE Conservation Plan	WP6	2 - IEECP	9 - AEDHE	10 - CCIK	34	35
D6.3	A2M Knowledge Exchange Space functionalities and results - Final	WP6	2 - IEECP	10 - CCIK	1 - RSE	34	35
D7.1	Plan for the Dissemination of Results (PDR) - 1st edition	WP7	9 - AEDHE	1 - RSE	5 - POVAS	3	4
D7.2	Stakeholder Analysis and Engagement Plan (SAEP) - 1st edition	WP7	6 - NTUA	2 - IEECP	9 - AEDHE	3	4
D7.3	Summary and compilation of all dissemination activities including impact assessment - 1st edition	WP7	9 - AEDHE	3 - ADELPHI	2 - IEECP	10	11
D7.4	Policy recommendations report	WP7	3 - ADELPHI	4 - ESCAN	6 - NTUA	33	34
D7.5	Final publishable report	WP7	9 - AEDHE	5 - POVAS	3 - ADELPHI	33	34
D7.6	Plan for the Dissemination of Results (PDR) - 2nd edition	WP7	9 - AEDHE	6 - NTUA	7 - HERA	35	36
D7.7	Stakeholder Analysis and Engagement Plan (SAEP) - 2nd edition	WP7	6 - NTUA	7 - HERA	8 - ENVIROS	34	35
D7.8	Summary and compilation of all dissemination activities including impact assessment - 2nd edition	WP7	9 - AEDHE	8 - ENVIROS	10 - CCIK	22	23
D7.9	Summary and compilation of all dissemination activities including impact assessment - 3rd edition	WP7	9 - AEDHE	10 - CCIK	4 - ESCAN	34	35

Assigned reviewer per Partner:

Table 3: 1st & 2nd Reviewer Counts Overview

Partner:	1st Reviewer	2nd Reviewer
1 - RSE	4	2
2 - IEECP	4	2
3 - ADELPHI	3	2
4 - ESCAN	3	3
5 - POVAS	3	3
6 - NTUA	3	3
7 - HERA	3	3
8 - ENVIROS	3	3
9 - AEDHE	3	3
10 - CCIK	3	3
All Partners		**5**

ANNEX 2: INTERNAL PROJECT KPIs

Table 4: Impact monitoring, evaluation and reporting

Call Impacts	Project Performance Indicator	Quantification	Measurement unit

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Project engagement	Engaged companies	- at least 50 companies engaged in capacity building activities (WP4).	Participation of at least 50 different companies to WP4 activities.
	Engaged company staff and energy auditors in the project	Overall engagement: - 100 high-level managers and decision makers involved (T4.1 T5.6); - 100 intermediate and low-level managers trained in training courses (T4.2); - 100 energy auditors, investors, energy experts and energy managers involved in training workshops (T4.3); - 200 energy related experts, staff of industry associations, consultants, economists, business/commercial experts and other professionals trained in training workshops with industrial associations (T4.4); - 120 professionals engaged in knowledge exchange space (KES) dialogue events and "Masterclass" (WP6); - 150 professionals engaged in KES launch events.	Participation of at least 75% of the invited stakeholders to the events organized by A2M. At least 75% positive replies in the evaluation forms following the events.
Understanding the sector priorities and efficiency potential	Needs assessment for improving energy efficiency	- 60 stakeholders surveyed (T2.1).	At least 75% in depth replies from the surveys.
	Assessment of the key ESM found in energy audits	- 50 ESM identified (T3.2).	At least 35 executive sheets (with one or more ESM) collected and organised in technology groups.
Building capacities and skills	Management and decision makers informed about ESM	- at least 5 companies engaged in the implementation of selected ESM in each of the involved countries (T5.3).	At least 75% positive feedbacks about the implementation of selected ESM.
	Development of laboratory of ideas	- 100 high-level managers and decision makers involved in the laboratory of ideas (T4.1).	At least 75% rate of positive replies after laboratory of ideas, training courses and workshops showing willingness to implement ESM.
	Training courses/workshops to uptake ESM	- 100 intermediate and low-level managers trained (T4.2).	
		- 100 energy auditors, investors, energy experts and energy managers involved in training workshops (T4.3).	
	National training workshops with industrial associations to uptake ESM	- 200 energy related experts, staff of industry associations, consultants, economists, business/commercial experts and other professionals trained (T4.4).	
	Introduction to policy recommendations and guidelines	- 100 high-level management staff and decision makers involved in national training workshops to introduce them on how to improve the corporate level culture (T5.6).	At least 30 statements (ex. Testimonials to be published in the project website,...) from stakeholders showcasing the effectiveness of AUDIT-TO-MEASURE outputs.
	Exploitation actions	- at least 120 professionals engaged in KES dialogue events and "Masterclass" (WP6); - at land 150 professionals engaged in KES launch events (WP6); - at least 430 professionals engaged by dissemination actions (WP7).	

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Implementation of ESM	Triggered energy efficiency investments	- 125 ESM directly supported (T5.3).	Documentation in industries' annual reports on ESM adopted (from the ESM identified in A2M).

Table 5: Communication, dissemination and visibility

Activity	Objective	Expected audience	Monitoring tool
Partners' Websites & Social Media	Increasing knowledge on the project topic/information easy-to-understand.	500 unique visitors per partner every year; 150 downloads of project materials per partner every year.	Google & Social Media Analytics
E-newsletters	Information easy-to-understand, communicating to different stakeholders in the EU and globally (twice per year).	5,000 recipients with 30% opening rate. (cumulative total, including partners' own recipients)	MailChimp emailing system.
Social Media channels	Creating awareness and familiarity with the project topic, objectives and results.	Reach at the project end: - hashtag #AUDIT-TO-MEASURE used 1,000 times on Twitter; - 400 views on Facebook; - 500 views on LinkedIN.	Twitter and Facebook own analytics, Twitonomy.
Project Brochure	Creating awareness and familiarity with the project topic, objectives and results.	800 downloads from the website; 500 printed copies distributed.	Number of downloads on the website, number of copies distributed and where tracked.
Logo & Corporate Infographics and materials	Translating the project topic, objectives and results into a non-scientific language and in a clear and impactful way	600 downloads.	Number of downloads on the website, number of copies distributed and where tracked.
Articles & Grey Materials	Creating awareness and familiarity with the project topic, objectives and results	10 Journal papers and three press releases during the project duration.	Media monitoring regularly. Copies of the articles/links on project website.
Digital networking and clustering activities with EU projects	Creating awareness and familiarity with the project topic, objectives and results.	Have our project referenced online on about 50 other websites and referenced to at EU-projects' meetings and conferences.	Digital monitoring.
At least three EU dissemination webinars and two EU conferences	Presenting the project topic, objectives and sharing the results, engaging with our different target groups.	Expected audience of 110-120 participants for the dissemination conferences. Expected audience of 70-90 participants for each of the webinars (at least 430 participants in total).	Number and list of participants if available. Recordings. Photos. Minutes. Events link.
Policy Briefing	Summarizing key information and analysis coming from the project database and tools into policy recommendations; On-line consultation on the draft Policy Paper.	300-400 downloads from the website.	Google Analytics.

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ANNEX 3: LIST OF CRITICAL RISKS

Table 6: Predefined Risks and Contigency Plans

Risk Number	Description	Work Package No(s)	Proposed Mitigation measures
1	Low quantity of data and/or quality of information for energy impact analysis, benchmarking and validation activities.	WP2, WP4, WP3, WP5	Definition of rules and minimum standards. Definition of action plan to increase data or quality of the same. Use of existing data as back-up. Several key actors already are committed to support and participate in AUDIT-TO- MEASURE (Signed LoS can be found in Annex 3 to Part B (see LIST OF ANNEXES)). Moreover, the consortium partners bring together organizations with significant networking and established membership lists which can contribute in the data collection.
2	Negative evolution of monitoring activities.	WP6, WP4, WP3, WP5, WP7	Definition of alarms and action plans to solve it through a Risk Management Grid disseminated to all partners every six months: this Grid includes every task and deliverable underway or about to start. Coordinator will monitor the progress in all areas of the project plan, including goals, objectives, requirements, and quality standards of deliverables, with regular checks of WPs and technical meetings to ensure partners are clear on the progress of targets.
3	Lack of representative users for validation.	WP4, WP3	Early identification and involvement of possible users.
4	Low motivation of relevant stakeholders or lack of interest/reluctance of some key actors to enter into the Audit2Action strategy implementation and to cooperate.	WP4, WP5	The consortium partners have wide and diversified contact networks in Europe to get the proper support. They bring to AUDIT-TO-MEASURE their close connections to policy makers, consumers, industrial players and relevant interested parties. Moreover, several key actors already are committed to support and participate in AUDIT-TO-MEASURE (signed LoS can be found in Annex 3 to Part B (see LIST OF ANNEXES)) and they will also engage their network and supervised entities into the Audit2Action strategy development and implementation. The consortium partners will attempt to keep motivation high by offering a varied schedule of consultation activities, widespread through the national territories, appealing to all related stakeholders.
5	Lack of communication or consensus between the project members.	WP6, WP2, WP4, WP1, WP3, WP5, WP7	Communication flow strategy, including project regular meetings and continuous communication (e-mails, phone calls, personal and web meetings). The PC has the necessary skills to resolve possible conflicts through negotiations.
6	Partner under-performing or willing to leave the project.	WP6, WP2, WP1, WP4, WP3, WP5, WP7	The risk is limited due to the high-level and motivation of people involved, confirmed also by previous joint working experiences. The Executive Board (EB) will take action in case any partner is not contributing to the project as indicated in the Consortium Agreement and Grant Agreement. This EB will decide whether the uncovered project activities can be carried-out by a different partner; however, this is very unlikely given the careful selection of partners by the consortium.

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7	Underestimation of the time needed to produce deliverables.	WP6, WP2, WP1, WP4, WP3, WP5, WP7	To ensure the successful completion of the activities and the validity of their results, there are specific management tasks dedicated to the planning of work, validation and quality assurance activities. Each WP has a WP leader who is responsible for timely completion of activities; project management also ensures timely submission of deliverables.
8	Underestimation of effort needed to complete activities.	WP6, WP2, WP1, WP4, WP3, WP5, WP7	The management structure will closely monitor resources/budget consumption and take corrective actions wherever necessary.
9	Specific difficulties (whose character cannot be foreseen at the present time).	WP6, WP2, WP1, WP4, WP3, WP5, WP7	They will be addressed in an ad-hoc way, through a combination of professionalism, common sense and flexibility. A proactive approach will be used to avoid, where possible, turning difficulties into problems and to reach a commonly agreed solution. The EB will guarantee a prompt intervention should any difficulty arise and a continuous commitment to update and monitor the threats and setbacks that can affect the development of the tasks will be taken by the management of all partners and WP leaders.
10	Low interest of stakeholder to participate and to adopt the results at the end of the project.	WP6, WP2, WP4, WP1, WP3, WP5, WP7	By collecting LoS, the consortium partners documents the commitment of stakeholders to engage in the project. The partners will actively seek the support of industry via the AB. One of the first steps of the project is to carry out an retrospective analysis of the situation of auditing in machinery industry, thus the actual needs of stakeholders will be addressed in the project. As mitigation action partners will promote success-stories and information in order to create awareness and foster the attractiveness of these results.
11	The Advisory Board does not provide comments and suggestions on time.	WP6, WP2, WP1, WP4, WP3, WP5, WP7	Several key actors already are committed to participate in the AB, as shown by the signed Letters of Support in Annex 3 to Part B (see LIST OF ANNEXES). Meetings with the AB Members will be held regularly and sufficient buffer will be foreseen for their comments and suggestions.
12	Insufficient interest of companies to share data from the audits and to implement audit outcomes.	WP2, WP4, WP3, WP5	AUDIT-TO-MEASURE will be carried out by partners with vast experience and established contacts for carrying out audits in practice and engaging stakeholders, by building trustworthy relationship. The engagement campaign and the supporting action will have a long duration to allow for counter-measures if intermediary targets (e.g. Milestone 6) are not met. Data from the companies will only be used in an anonymous manner, by ensuring full respect of GDPR (see T1.4). Companies will know exactly which data is collected and further used by the project team prior to the actual sharing of information. Companies will be incentivised in allowing the project team to use the data by receiving dedicated trainings and support to implement ESM and incorporate the Audit2Action strategy in their daily business.
13	Number of collected data (audit results, ESM, questionnaire answers) not sufficient to develop useful benchmarks.	WP2, WP3	The project partners will design the methodology in a way that it can be used on several levels of detail. This will make sure that, at least on an aggregate level, there is sufficient data to provide meaningful benchmarks. The methodology and guidelines will be made public to allow new data to be added to the AUDIT-TO-MEASURE results after the end of the project.

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14	Partner leaves the project.	WP6, WP2, WP1, WP4, WP3, WP5, WP7	If possible, a new partner, with similar expertise, will be added to the consortium. Otherwise, to the maximum extent possible, the work will be redistributed among the remaining partners; however, due to the complementary nature of the partners involved in AUDIT-TO-MEASURE, it may be necessary to remove a task or part of it.
15	An unclear project vision and some research effort leads into a side track.	WP6, WP2, WP1, WP4, WP3, WP5, WP7	Short telephone conferences and/or mail exchanges between the WP leaders and the PC will take place constantly. Each month, WP leaders will be asked to formally report on: (a) achievements, (b) problems, (c) other issues and (d) forecast. The supervision of the AB will ensure the targeting of the objectives and possible re-orientation of the activities.
16	Different level of detail in the collected data, across sources and/or across countries.	WP2, WP3	Harmonization procedures will be adopted, considering the availability of information at different levels. Moreover, partners have wide experience in collection and harmonization of data coming from different sources and they will use consolidated procedures developed in previous projects (e.g. EU-MERCI).
17	A partner violates constraints on the access to data.	WP6, WP2, WP4, WP1, WP3, WP5, WP7	Access to constrained data will be appropriately protected through passwords. Sanctions will be clearly specified in the Consortium Agreement.
18	Partners do not deliver reports, cost statements etc. in time.	WP1	Internal deadlines will be set in advance to official delivery deadlines. Contact information of responsible person is collected from each partner and WP. Reminders will be sent to the relevant people well before the deadlines. In case of reiterated unresponsiveness of one partner to the requests of compliance with the commitments, the PC will decide what action to put in place, compatibly with the rules dictated by Grant Agreement and Consortium Agreement.
19	Bankruptcy, economically defaulting or similar of a partner.	WP1	All partners are well consolidated at the beginning of the project. In the unlikely case of such an event, efforts will be made to redistribute the work and the funds.
20	Rapidly changing regulatory/legal context that could make the project references become old.	WP6, WP2, WP4, WP1, WP3, WP5, WP7	Partners insisting on the national areas covered by the project will monitor and signal known regulatory changings, even if subsequent to the deliverance of its own results; they will also collaborate in helping the consortium solve possible doubts. The Advisory Board can also be consulted on these issues.
21	Too few or dispersed feedbacks from engagement of stakeholders.	WP6, WP2, WP4, WP3, WP5	Actions for stakeholders' engagement will be planned and scheduled carefully since the beginning of the project. Capillary presence on the EU area should empower the engagement and control the development.
22	The European macro scenarios (economy and industry growth, price of energy,...) used as reference are changing and less relevant.	WP6, WP2, WP4, WP3, WP5	Using up to date, formal accepted, European development macro scenarios and models, monitoring the trends during the project duration, developing alternative scenarios (optimistic, pessimistic etc.) around the basic one.
23	Low impact of Consortium activities.	WP6, WP4, WP3, WP5, WP7	The Consortium is diverse and includes different actors, that guarantee relevant connections and channels. Anyway, tasks fully dedicated to Dissemination activities and Communication Strategies will be controlled by mechanisms to ensure consistent and timely communication.

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ANNEX 4: LIST OF PROJECT MILESTONES

Table 7: Overview of Project Milestones

Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Means of Verification	Due Date (month)
1	Kick-off meeting	WP1	1-RSE	Kick-off meeting is held in Milan	1
2	Intermediate reporting	WP1	1-RSE	Intermediate report is uploaded on EC participant portal	18
3	Completion of the deliverables	WP1	1-RSE	All deliverables are uploaded on EC participant portal	36
4	Finalization of the questionnaire to the companies	WP2	3-ADELPHI	Questionnaire results	4
5	Finalization of the company interviews	WP2	3-ADELPHI	WP2 reports	9
6	Draft Audit2Action Strategy	WP3	4-ESCAN	Minutes from the AB meeting and short outline of the received insights	8
7	KPIs identification	WP3	6-NTUA	AB minutes and insights identified in the final report as contributions	8
8	Capacity building in companies	WP4	8-ENVIROS	Capacity building completed (D4.2, D4.4)	36
9	Capacity building of other target groups	WP4	8-ENVIROS	Capacity building completed (D4.5)	30
10	Methodology	WP5	4-ESCAN	Completed methodology (D5.1)	11
11	Monitoring of ESM implementation in 10 business	WP5	4-ESCAN	Completed monitoring (D5.3, D5.4)	36
12	KES launch	WP6	2-IEECP	Weblink, functionality report	12
13	KES for Stakeholders launched	WP6	2-IEECP	Dialogue minutes accompanied with interactions on the KES (D6.1)	20
14	KES future sustainability and exploitation of results	WP6	2-IEECP	ALL dialogue minutes accompanied with interactions on the KES (D6.2, D6.3)	35
15	Project website	WP7	2-IEECP	Project website up and running	6
16	Intermediate conference	WP7	9-AEDHE	First European dissemination event is held	19
17	Final conference	WP7	3-ADELPHI	Second European dissemination event is held	36

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