Organisation: Europroject

D1.1 Project Management Plan

Date 24.06.2024

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Nature of the deliverable		
R	Report	X
DEC	Websites, patents, filing, etc.	
DEM	Demonstrator	
O	Other	

Dissemination level		
PU	Public	x
CO	Confidential, only for members of the consortium (including the Commission Services)	

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SWARM-E is a trans- and multi-disciplinary approach for sustainable, affordable, and modern energy access and well-being for Sub-Saharan Africa, aligned with the AU-EU Agenda 2063.

SWARM-E consists of several layers: 1) an innovative renewable electricity infrastructure, the SWARM grid, a circular and cyber-smart network where end-users exchange electricity of their solar home systems and form the nodes of a smart grid which can dynamically grow to meet demand; 2) unlocking unutilised renewable energy for productive uses in the water energy food nexus – cold storage, water purification, water pumping and irrigation, carpentry; 3) transfer and decentralisation of Global North energy transformation innovations – decentralised hydrogen production for cleaner cooking, bi-directional charging of light electric vehicles (two- and three-wheelers) to transport goods and people. SWARM-E builds on network effects generated through the inclusion of localised economies with strong producer-consumer linkages embedded within larger systems of trade and exchange for the creation of bottom-up energy communities.

SWARM-E will operate and replicate 5 pilots in Rwanda and Tanzania, under which 5 SWARM grids are installed, delivering 6.9 GWh of renewable electricity while generating income through the trading of electricity and avoiding the discard of 3,200 batteries; 5 water purification applications deliver 101.M L of clean water; 15 light electric vehicles deliver farmers' produce, power mobile productive uses and cold storage, increasing the yields of 1,000 farmers and reducing the food losses of more than 5,000; 700 kg of H2 blended with LPG for cleaner cooking, and more than 500 jobs for women and youth to be created.
The balanced participation of EU and AU private, public and civil society organisations in the consortium will ensure the knowledge transfer North-South and South-South, and the sustainability of value chains based on local value creation and entrepreneurship.

More information on the project can be found at: www.swarm-e.eu

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Summary of the deliverable

The following report documents the project management structures and procedures for executing the SWARM-E project. The report is considered a living document. It may be updated throughout the project's length, if necessary, to reflect changes in its rules and procedures.

This deliverable has five main sections:

- **Chapter I: Project structure** It introduces the overall project management structure and project management settings, along with PERT diagram, and Gantt Chart, detailing immediate actions in Year 1 of the project implementation and due dates for deliverables and milestones. It outlines the structure for the project tracking.
- **Chapter II: Roles and responsibilities** It defines the project management roles and responsibilities of the governing bodies outlined in Chapter I, as well as individual roles assigned by the SWARM-E project, inc. Project Manager, Innovation Manager, Work Package Leaders, Task Leaders, etc. It further presents partners' contact lists per WPs and other matters.
- **Chapter III: Project Meetings** It outlines the type, frequency, and supporting tools for project meetings.
- **Chapter IV: Deliverable Review and Approval** It outlines the review process as a key step in the preparation of a deliverable to guarantee that the result is aligned with the appropriate standard and quality. A template for SWARM-E deliverables is available and shall be updated with the approved project graphic chart.
- **Chapter V: Project Progress Monitoring** It outlines the type, frequency, and procedures for internal administrative, financial, and technical reporting on the SWARM-E progress, together with the digital management tools to be utilised throughout the project to manage the workflow.
- **Chapter VI: Code of Conduct** section provides information on the main principles of implementation of the SWARM-E project and the PM code of conduct that will be followed.

List of Acronyms and Abbreviations

Abbreviation	Definition
CA	Consortium Agreement
GA	Grant Agreement
DEC	Dissemination, Exploitation and Communication
EAB	External Advisory Board
EC	European Commission
EU	European Union
GAs	General Assembly
KOM	Kick-off meeting
KPI	Key Performance Indicator
TIM	Technical and Innovation Manager
DC	Data Controller
PC	Project Coordinator
PM	Project Manager
TL	Task Leader
WPL	Work Package Leader
STL	Subtask Leader

Contents

Tables

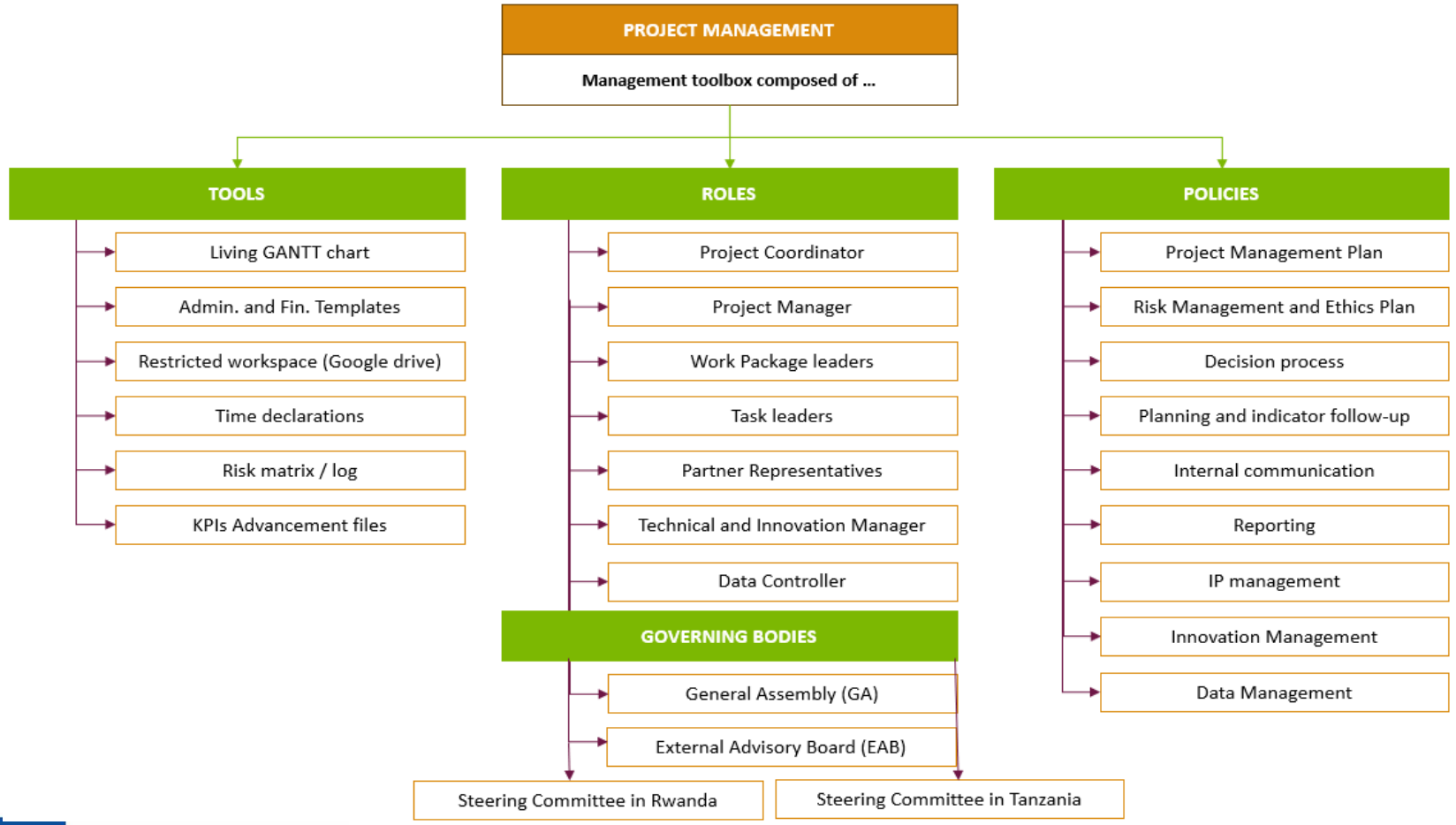
Figures

1. CHAPTER I: PROJECT STRUCTURE

1.1 Project Management Structure

The SWARM-E project is composed of 15 partners from 7 European and 3 African countries and 1 affiliated entity to the Coordinator from Bangladesh. MicroEnergy International GmbH (MEI) is the Coordinator of the project. Its management structure, as outlined in the Grant Agreement (GA) and Consortium Agreement (CA) is illustrated in Figure 1.

Figure 1 SWARM-E Project Management Structure



The day-to-day management will be conducted at four levels:

- sub-task,
- task,
- work package, and
- overall project.

The **project's governing bodies** include (as further explained in Chapter II)

- the ultimate decision body called the General Assembly (GAs),
- the External Advisory Board (EAB),
- Steering Committee in Rwanda,
- Steering Committee in Tanzania.

The **project management roles** established within SWARM-E include (as further explained in Chapter II):

- the Project Coordinator (PC),
- a Technical and Innovation Manager
- a Data Controller (DC),
- a Project Manager (PM),
- Work Package Leaders (WPL)
- Task and Sub-task Leaders (TL, STL).

1.2 Organisational Structure

Figure 2 outlines the SWARM-E organisational structure in terms of project implementation.

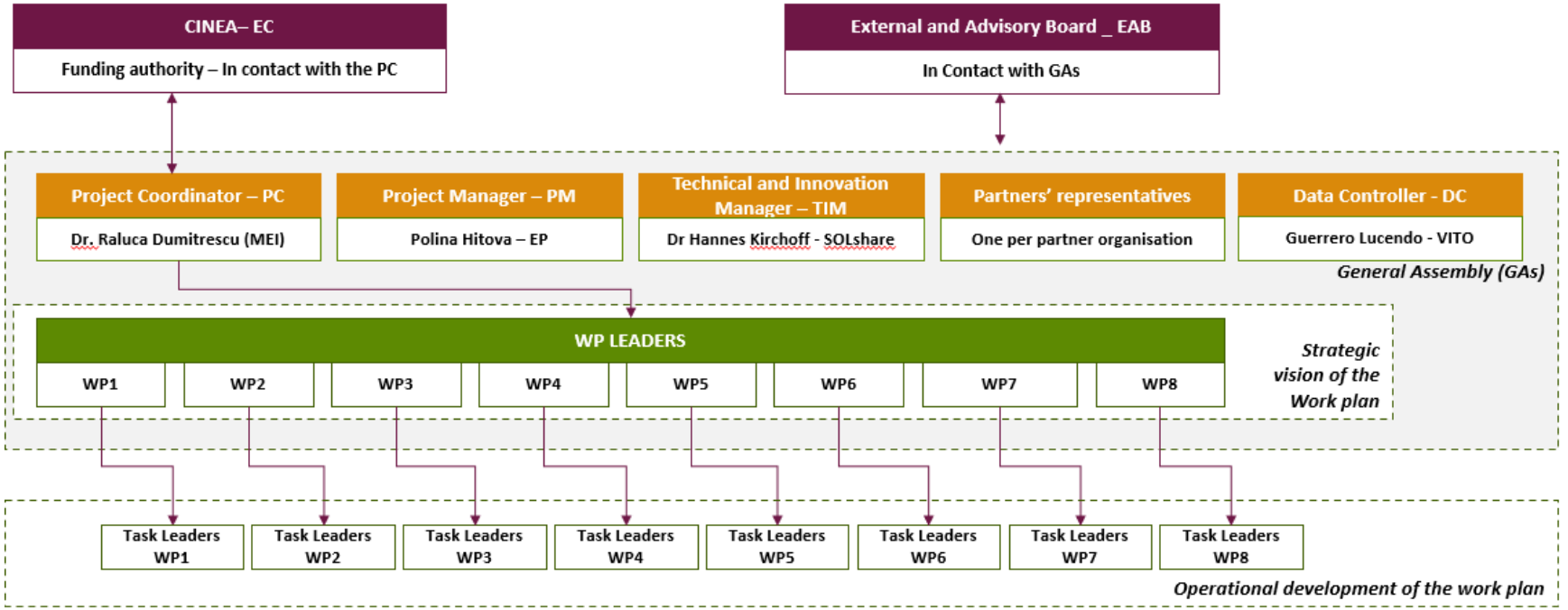


Figure 2 SWARM-E Organisational Structure

1.3 PERT Diagram: Work Breakdown Structure

SWARM-E will be implemented within 48 months and divided into 8 work packages, as illustrated in the PERT Diagram below. Understanding the local context of pilot sites, at micro – citizen and macro – system levels (economic, social, political) is the backbone of SWARM-E and will precede the design phase of the technical, business, and social solutions demonstrated in the pilot.

Throughout the implementation of activities composing these four phases, there will be 2 horizontal Work Packages - one work package will be fully dedicated to the management of the whole project, including technical and administration, data management, risk management, and ethics requirements (WP1), another on project communication and dissemination (WP8).

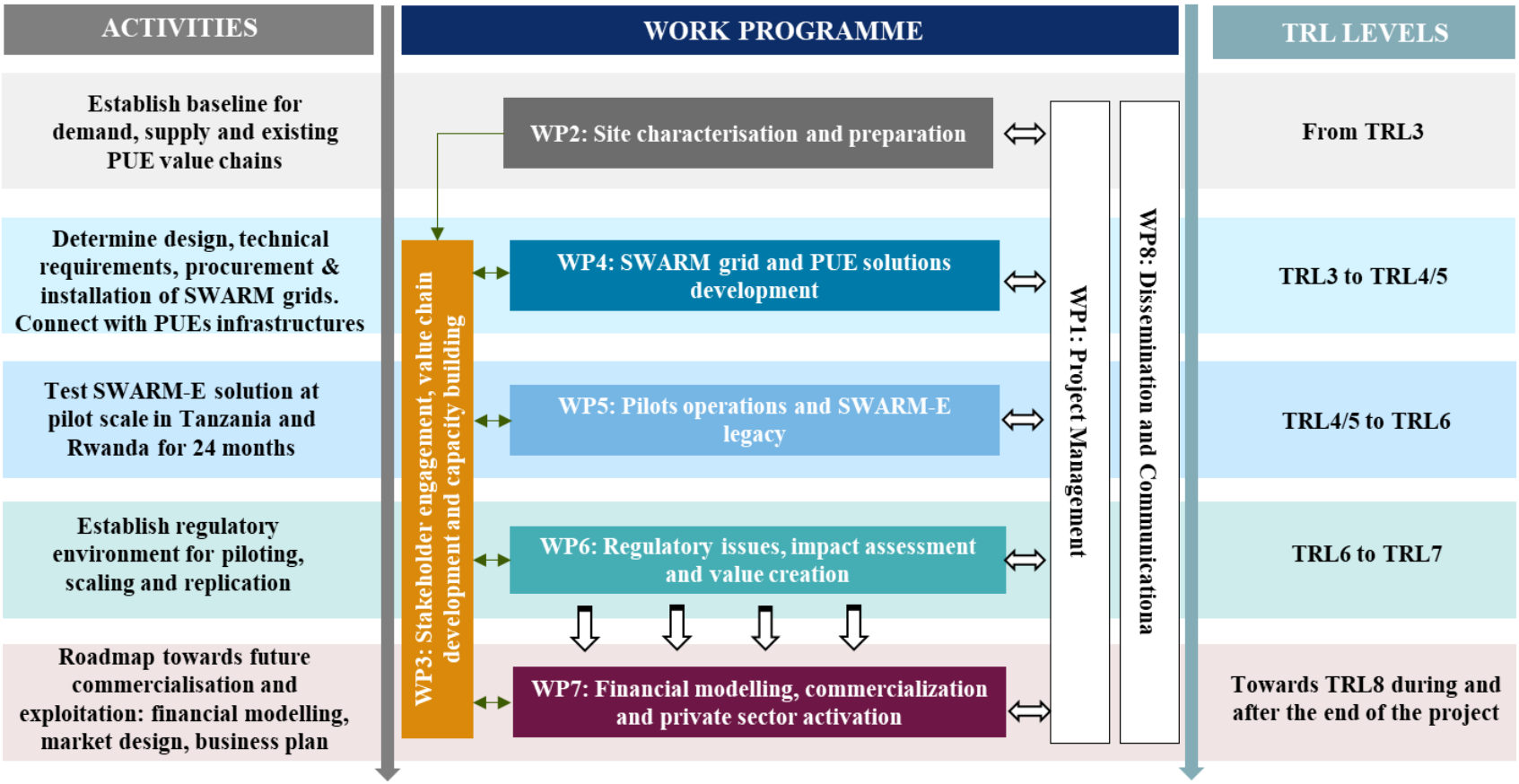


Figure 3 SWARM-E PERT Diagram

Site characterisation activities (WP2) and capacity needs assessment (WP3) will set the stage for nearly all WPs (WP4, 5, 6, and 7) as consecutive activities in the project will be designed according to their findings. Similarly, the engineering and SWARM grid infrastructure system modelling activities (WP4) are also key for the implementation of the pilots (WP5).

In parallel, stakeholder engagement activities (WP3) will be critical to supporting 1) the successful pilots' implementation (WP5), 2) understanding the appropriate commercialization strategies (WP7), and 3) building the capacity needed for value chain creation (WP3).

All WPs will feed into the dissemination and communication activities (WP8), in order to shape the right messages and adapt them throughout the project to the variety of stakeholders that are relevant in the SWARM grid ecosystems.

1.4 GANTT Chart: Project schedule

To manage the complexity and the dynamics of the project, WPLs in collaboration with TLs and involved partners have developed a detailed GANTT Chart which provides a visual overview of the project schedule with specific timeframes per work package and task as well as an outline of the WP/Task leaders. It further marks milestones and deliverables, with a focus on Year 1 of the project implementation. The Gantt Chart is a progressive tool, which serves the needs of planning – immediate, short-term, mid-term, and long-term steps. Each year it will be updated to track the progress of implemented activities and to elaborate on subtasks and responsible organizations for the forthcoming year. It will be consulted at each WP meeting and at core consortium meetings as one of the early indication tools of any deviations to inform for possible corrective or forward-looking decisions.

The SWARM-E working GANTT chart is available at the project shared space on Google Drive here: https://docs.google.com/spreadsheets/d/1zCKBYw61Nr0xY_LaXEQ8hjWL5q9s5N0IsD79GY57M3I/edit?gid=1586062569#gid=1586062569

The current version of the SWARM-E Gantt Chart for Year 1 is presented herein below in Table 1.

WP/T/ST	Key Activity	WP/T/ST Lead	Input from WPx/Tx/STx	Output for WPx/Tx/STx	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
					May 24	June 24	July 24	Aug 24	Sep 24	Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25	Apr 25
WP1	Project Management	MEI														
T1.1.	Administrative and financial management	MEI														
ST1.1.1	Development of templates for milestone and deliverable reporting	EP		T1.2												
ST1.1.2	Development of Gantt chart Year 1	EP&MEI	WP2,3,4,5,6,7,8	T1.1 & T1.2												
ST1.1.3	Development of Pert chart Year 1	EP&MEI	WP2,3,4,5,6,7,8	T1.1 & T1.2												
ST1.1.4	Development of other internal project managment tools, incl. partners' periodic technial and financial reporting, organizing project internal shared space	EP&MEI	WP2,3,4,5,6,7,8	T1.1 & T1.2												
ST1.1.5	Delivering D1.1 Project Management Plan	EP&MEI	WP2,3,4,5,6,7,8	T1.1 & T1.2												
ST1.1.6	Quaterly and ongoing update of project managment tools	EP&MEI	WP2,3,4,5,6,7,8	T1.1, T1.2 & T1.4												
D1.1	Project Management Plan	EP					D1.1									
T1.2.	Monitoring of project activities and work progress	MEI	WP2,3,4,5,6,7,8	T.1.1												
ST1.2.1	Collecting partners' technical and financial reports	MEI	WP2,3,4,5,6,7,8	T.1.1												
T1.3.	Open research Data Management	MEI	WP2,3,4,5,6,7,8	T1.3, WP2												
ST1.3.1	Collection and revision of data which the project will use	MEI	WP2,3,4,5,6,7,8	T1.3, WP2												
ST1.3.2	Coordinating with EU regulations and patners' preferences for data collection, processing, storage, etc.	MEI	WP2,3,4,5,6,7,8	T1.3, WP2												
ST1.3.3	Consolidation of Data management plan	MEI	WP2,3,4,5,6,7,8	T1.3, WP2												
D1.2	Data Management Plan	MEI								D1.2						
T1.4.	Risk management & Ethics	MEI	WP2,3,4,5,6,7,8	T1.4												
ST1.4.1	Revision of project risks and prepration of risks managment grid	MEI	WP2,3,4,5,6,7,8	T1.4												
ST1.4.1	Revision of ethics requriements for the project implementation against EU regulation	MEI	WP2,3,4,5,6,7,8	T1.4												
ST1.4.1	Consolidation of Risk managment & Ethics plan	MEI	WP2,3,4,5,6,7,8	T1.4												
D1.3	Risk Management and Ethics Plan - Year 1	MEI								D1.3						
WP2	Sites characterisation and preparation	VITO														
T2.1.	Demand side measurement	MEI														
ST2.1.1	Pre-selection of sites	MEI		T2.2, T2.3, T4.1, WP5, T7.2, T7.3												
ST2.1.2	Data gathering preparation (Questionnaires, survey teams set up and training, logistics, permits)	MEI														
ST2.1.3	Data gathering	MEI														
ST2.1.4	Data reception, treatment and analysis	MEI														
ST2.1.5	Demand side characterisation and reporting	MEI		T2.2, T2.3, T2.4, T4.1, WP5, T7.2, T7.3												
D2.1	Summary on demand side characterisation and measurement, conclusions and recommendations	MEI								D2.1						

WP/T/ST	Key Activity	WP/T/ST Lead	Input from WPx/Tx/STx	Output for WPx/Tx/STx	M1 May 24	M2 June 24	M3 July 24	M4 Aug 24	M5 Sep 24	M6 Oct 24	M7 Nov 24	M8 Dec 24	M9 Jan 25	M10 Feb 25	M11 Mar 25	M12 Apr 25
T2.2.	**Supply side measurement**	MEI														
ST2.2.1	*Data gathering preparation (Identification of project stakeholders, questionnaires, survey teams set up and training, logistics, permits)*	MEI														
ST2.2.2	*Data gathering*	MEI														
ST2.2.3	*Data reception, treatment and analysis*	MEI														
ST2.2.4	*Supply side characterisation and reporting*	MEI		T2.3, T2.4, T4.1, WP5, T7.2, T7.3												
D2.2	**Report including data gathering results, interpretation, application of selection methodology and conclusions**	MEI										D2.2				
T2.3.	**Data analysis and sites characterisation**	VITO														
ST2.3.1	*Demand data analysis*	VITO	T2.1, T2.2	WP4, WP5												
ST2.3.2	*Load curves construction*	VITO	T2.1, T2.2	WP4, WP5												
ST2.3.3	*Identification and ranking of key economic sectors*	VITO	WP3, WP7	WP3, WP4, WP6, WP7												
D2.3	Summary on supply side characterisation, inc. mapping of supply chain and identification of knowledge, products and service gaps	MEI											D2.3			
T2.4.	**Site selection methodology and decision**	VITO														
ST2.4.1	*Creation of MCDM for site selection*	VITO	WP3, WP4, WP6, WP7	ST2.4.2												
ST2.4.2	*Analysis of sites and application of MCDM*	VITO	WP3, WP4, WP6, WP7	WP4												
ST2.4.3	*Development of M&E framework*	VITO	WP3, WP4, WP5, WP6, WP7	WP3, WP4, WP5, WP6, WP7												
D2.4	**Demonstration sites and their M&E framework**	VITO														D2.4
WP3	**Stakeholder engagement, value chain development and capacity building**	**WUP**														
T3.1.	**Understanding the local context: Baseline needs assessment**	WUP														
ST 3.1.1	*Mapping of innovation system actors*	WUP	WO2, T2.1, T2.2, M2.1	WP4, T4.1, 4.3, 4.4, WP6, T6.1												
ST 3.1.2	*Surveying the actors and barrier analysis*	WUP	ST 3.1.1	WP4, T4.1, 4.3, 4.4, WP6, T6.1												
T3.2.	**Value chain and productive use of energy development plan**	WUP														
ST 3.2.1	*Value chain analysis*	WUP	WP2, WP3 ST 3.1.1, 3.1.2	WP4, T4.1, T4.3, T4.4; WP7, T7.2, T7.3, WP6, T6.1, T6.2												
ST 3.2.1	*Models for increasing productive use*	WUP	ST 3.2.1	WP4, T4.1, T4.3, T4.4; WP7, T7.2, T7.3, WP6, T6.1, T6.2												

WP/T/ST	Key Activity	WP/T/ST Lead	Input from WPx/Tx/STx	Output for WPx/Tx/STx	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
					May 24	June 24	July 24	Aug 24	Sep 24	Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25	Apr 25
D3.1	Local context report: actors, barriers, and needs assessment, value chains, and development plan	WUP														D3.1
T3.3.	Co-developing a capacity building strategy	RES4		T3.4, WP5, T5.1, T5.2, ST 7.1.2												
ST 3.3.1	*Preparation*	RES4	WP2, WP3, T3.1	T3.4, WP5, T5.1, T5.2												
ST 3.3.2	*Kick-off workshop*	RES4	WP2, WP3, T3.2, ST3.3.1	T3.4, WP5, T5.1, T5.2												
ST 3.3.3	*Visits and fieldwork*	RES4	WP2, WP3, T3.3, ST3.3.2	T3.4, WP5, T5.1, T5.2												
D3.2	Capacity building strategy and implementation plan	WUP														D3.2
T3.4.	Implementation of capacity building programme	RES4														
WP4	SWARM grid and PUE solutions development	SOL														
T4.1.	Swarm grid design	SOL														
ST 4.1.1	*Demand data and GIS mapping analysis for system design*	SOL	T2.1													
D4.1	SWARM grid topology and technical feasibility per site	SOL	T2.4	T4.2, WP5												D4.1
T4.2.	Swarm grid installation	SOL														
T4.3.	RW Pilot 1 development	OGB														
T4.4.	TZ Pilot 2 development	ELI														
WP5	Pilots operation & SWARM-E Legacy	MEI														
T5.1.	SWARM grid+ Demonstration: operation, reiteration and data analysis	MEI														
T5.2.	Legacy of SWARM grid +	MEI														
WP6	Regulatory issues and environmental aspects	TAREA														
T6.1.	Definition regulatory environment	TAREA														
ST 6.1.1	*Identify and define the roles of the local, national and international project stakeholders*	TAREA		T4.1, T4.2, T4.3, T4.4, T5.1, T5.2												
ST 6.1.2	*Analyse the influence of different regulatory environment*	TAREA		T4.1, T4.2, T4.3, T4.4, T5.1, T5.2												
ST 6.1.3	*Activate the local and national authorities, developers and beneficiaries to take part in the project*	TAREA	WP2, W3, W7	T8.3, T8.4, T5.2												
T6.2.	Full Sustainable life-cycle assessment of SWARM-E approach in the African context	INED	WP2, WP4, WP5	T6.2, T6.3, ST6.4.1, ST6.4.2.												
ST 6.2.1	*Life Cycle Assessment (LCA)*	INED	WP2, WP4, WP5	T6.2, T6.3, ST6.4.1, ST6.4.2.												
ST 6.2.2	*Life Cycle Costing Assessment (LCCA)*	INED	WP2, WP4, WP5	T6.2, T6.3, ST6.4.1, ST6.4.2.												
ST 6.2.3	*Social Life Cycle Assessment (s-LCA)*	WUP	WP2, WP4, WP5	T6.2, T6.3, ST6.4.1, ST6.4.2.												

WP/T/ST	Key Activity	WP/T/ST Lead	Input from WPx/Tx/STx	Output for WPx/Tx/STx	M1 May 24	M2 June 24	M3 July 24	M4 Aug 24	M5 Sep 24	M6 Oct 24	M7 Nov 24	M8 Dec 24	M9 Jan 25	M10 Feb 25	M11 Mar 25	M12 Apr 25
T6.3.	Circularity management strategy	INED	WP2, WP4, WP5, T6.2	T6.3, ST6.4.1, ST6. 4.2, T8.3												
ST 6.3.1	*Circular management strategy*	INED	WP2, WP4, WP5, T6.2	T6.3, ST6.4.1, ST6. 4.2, T8.3, WP7												
ST 6.3.2	*Strategy and waste management protocol*	INED	WP2, WP4, WP5, T6.2	T6.3, ST6.4.1, ST6. 4.2, T8.3												
WP7	**Financial modelling, commercialisation and private sector activation**	**BWB**														
T7.1.	System mapping and data collection	BWB														
ST 7.1.1	*Mapping local stakeholder economic and financial interactions*	BWB	ST 3.1.1													
ST 7.1.2	*Define high-level archetypes of finance models and business practices*	BWB		T3.4												
ST 7.1.3	*Establish CAPEX-OPEX models and other economic and financial indicators (e.g. load time series)*	BWB	ST 2.3.1	T2.4												
ST 7.1.4	*Benchmark levels of wastage, cost bases and, related pollution*	BWB		T3.4												
D7.1	System map, financial model, and tariffication	BWB														D7.1
T7.2.	Financial modelling and tariffication	BWB														
T7.3.	Business cases for productive sses	WUP														
T7.4.	Cost-benefit analysis of electrification strategy	VITO														
T7.5.	Funding structure, risk management and governance	BWB														
T7.6.	Scalability and commercialization	MEI														
WP8	**Dissemination and communication**	**RES4A**														
T8.1.	Dissemination and communication plan	RES4A														
D8.1	Communication and Dissemination Plan	RES4A	WP2,3,4,5,6,7	T8.2						D8.1						
D8.2	Communication and Dissemination Toolbox	RES4A	WP2,3,4,5,6,7	T8.2						D8.2						
T8.2.	Dissemination and communication activities	RES4	WP2,3,4,5,6,7	D8.5												
ST8.2.1	*Development of logo, Linkedin and X social media accounts*	EP		T8.1, T8.3, T8.4												
ST8.2.2	*Development of a project website*	EP		T8.1, T8.3, T8.4												
ST8.2.3	*Development of project dissemination materials*	EP		T8.1, T8.3, T8.4												
T8.3.	Liaison activities	RES4A	WP2, WP3, WP5	D8.5												
T8.4.	Synergy with relevant projects and initiatives	WUP	WP2, WP3, WP5	D8.5												

Table 1 SWARM-E GANTT Chart

1.5 Person Months Summary Table

A person-months summary table on a per task level provides a clear overview of the effort that different partners involved in a respective task(s) have. Below is the approved table for the Grant Agreement Preparation (GAP) phase. The project will aim to adhere to it, yet any deviations from it will be tracked down by the Project Coordinator through the defined financial management tools and well-justified by responsible partners.

Staff effort per participant

Grant Preparation (Work packages - Effort screen) — Enter the info.

Participant	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	Total Person-Months
1 - MEI	30.00	12.00	8.00	10.00	24.00	4.00	10.00	4.00	102.00
1.1 - SOLshare	1.00	3.00	1.00	6.00	10.00	1.00	1.00	1.00	24.00
2 - WUP	1.00	3.00	15.00	3.00	1.00	3.00	6.00	1.00	33.00
3 - VITO	1.00	7.00	2.00	4.00	4.00		3.00	1.00	22.00
4 - INEDIT	1.00				1.00	40.00	1.00	1.00	44.00
5 - EP	18.00							12.00	30.00
6 - BWB	1.00	1.50	1.50			1.00	23.00	2.00	30.00
7 - RES4AFRICA	1.00		4.00		1.00	1.00	1.00	24.00	32.00
8 - OGB Rwanda	1.00	12.00	12.00	18.00	24.00	2.00	3.00	2.00	74.00
9 - INKO	1.00	4.00	18.00		4.00		3.00	2.00	32.00
10 - UR	1.00	4.00		2.00		4.00	2.00	1.00	14.00
11 - EKOGLOBE	1.00	5.00	6.00	8.00	8.00	3.00	1.00	2.00	34.00
12 - ELI	1.00	6.00	10.00	8.00	16.00	4.00	4.00	4.00	53.00
13 - TAREA	1.00	2.00	2.00	1.00	1.00	8.00	1.00	2.00	18.00
14 - WETU	1.00	1.00	2.00	4.00	10.00	2.00	2.00	2.00	24.00
15 - I2M	1.00	4.00	2.00	16.00	4.00			1.00	28.00
Total Person-Months	62.00	64.50	83.50	80.00	108.00	73.00	61.00	62.00	594.00

Table 2 SWARM-E Staff efforts

2. CHAPTER II: ROLES AND RESPONSIBILITIES

2.1 Project Governing Bodies

2.1.1 General Assembly

The General Assembly is the ultimate decision-making body of the consortium. It is responsible for monitoring the project implementation, taking major strategic decisions, and determining the long-term strategy and direction of the project. The role, rights, and responsibilities are settled down in the SWARM-E Consortium Agreement. Highlights are presented herein.

The GA is chaired by the PC, and all other project partners are represented at the GAs through one representative.

a. Process and Responsibilities

The GAs will meet every six months during Consortium (management) meetings to review the overall project progress, track KPIs, impact indicators, milestones, and deliverables, and review any technical, innovation, managerial, and administrative issues. The GA shall have the following decision powers:

- Approve major strategic decisions and the long-term detailed work plan, as implemented during the progress of SWARM-E,
- Approve any new contractors entering the CA,
- Agree on content, finances, and intellectual property rights,
- Agree on Proposals for changes to Annexes 1 and 2 of the Grant Agreement to be agreed by the Granting Authority,
- Decide on the evolution of the consortium (entry of a new partner or withdrawal of a current one, Coordinator change, suspension of all or part of the project, termination of the project or the consortium)
- Endorsing project plans, including any WPL's recommendations for modifications in project (content) direction, and monitoring progress against these plans,
- Review and/or amend the terms in the CA e.g. additions or exclusion of partners,
- Agree upon proposals on defaulting parties.

b. Meetings

The chairperson shall convene ordinary meetings of the General Assembly at least once every six months and shall also convene extraordinary meetings at any time upon written request of any Member. The chairperson shall give written notice of a meeting to each Member as soon as possible and no later than 14 calendar days preceding an ordinary meeting and 7 calendar days preceding an extraordinary meeting. Within the same deadlines, the Project Manager, a member of the GAs will prepare and agree with the consortium on an agenda for the meeting with accent on items requiring decision. Minutes will be prepared by the PM with the request for revision by all partners in 10 calendar days, recording all decisions taken. Once the deadline for approval is over (whether or not there has been action by GAs members) the minutes become a binding document.

All members need to be present at all meetings. Upon their unavailability, they need to assign a substitute or a proxy with the right to vote.

Meetings of the General Assembly will be held primarily via teleconferences, or another telecommunication means, with one physical meeting in M10 and one in M48.

c. *Members*

The General Assembly shall consist of one representative of each beneficiary. The members of the GAs have been nominated during the Kick-off meeting and the list is in Table 3. Each Member shall be deemed to be duly authorised to deliberate, negotiate, and decide on all matters listed above. Partners agree to abide by all decisions of the General Assembly.

Vetoing: Partners have the right to exercise veto to decisions of the General Assembly. For example, a beneficiary that can show that its work, time for performance, costs, liabilities, intellectual property rights, or other legitimate interests would be severely affected by a decision of the General Assembly may exercise a veto concerning the corresponding decision or relevant part of the decision. When the decision is foreseen on the original agenda, a partner may only veto such a decision during the meeting. When a decision has been made on a new item added to the agenda before or during the meeting, a partner may veto such a decision during the meeting or within 15 calendar days after receipt of the draft minutes of the meeting. When a decision has been taken without a meeting a partner may veto such a decision within 15 calendar days after receipt of the written notice by the chairperson of the outcome of the vote. In case of the exercise of veto, all partners shall make every effort to resolve the matter which occasioned the veto to the general satisfaction of all partners.

Partner	**Abbr.**	**Delegate**	**Email**
MicroEnergy International GmbH	MEI	**Dr. Raluca Dumitrescu**	raluca.dumitrescu@microenergy-international.com
ME SOLshare Ltd.	SOLshare	**Salma S. Islam**	salma.islam@me-solshare.com
WUPPERTAL INSTITUT FUR KLIMA, UMWELT, ENERGIE GGMBH	WUP	**Emilie Martin**	emilie.martin@wupperinst.org
VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V	VITO	**Carlos Guerrero Lucendo**	carlos.guerrerolucendo@vito.be
INÈDIT INNOVACIÓ, S.L.	INEDIT	**Jordi Oliver i Solà**	jordi@ineditinnova.com
Europroject Ltd.	EP	**Polina Hitova**	Polina.hitova@europroject.bg
BWB CONNECT CLG	BWB	**Chris Smith**	chris.smith@bwb.earth
RENEWABLE ENERGY SOLUTIONS FOR AFRICA AND MEDITERRANEAN	RES4AFRICA	**Daniele Guzzo**	daniele.guzzo@res4africa.org
OffGridBox Rwanda Ltd.	OGB Rwanda	**Bas Berends**	bas@offgridbox.com
INKOMOKO BUSINESS	INKO	**Rachel Akimana**	rachela@inkomoko.com

DEVELOPMENT LTD			
UNIVERSITY OF RWANDA (African Center of Excellence in Energy and Sustainable Development)	UR	**Charles Kabiri**	c.kabiri@ur.ac.rw
EKOGLOBE RESOURCES LIMITED	EKOGLOBE	**Fredrick Mushi**	fredrick.mushi@ekoglobe.co.tz
ELICO FOUNDATION	ELI	**Sisty Basil**	sisty.basil@elicofoundation.org
Tanzania Renewable Energy Association	TAREA	**Matthew Matimbwi**	matimbwi@tarea-tz.org
WE!HUB VICTORIA LIMITED	WETU	**Tilmann Straub**	tilmann@wetu.co.ke
I2M Unternehmensentwicklung GmbH	I2M	**Aldo Ofenheimer**	aldo.ofenheimer@i2m.at

Table 3 SWARM-E members of the GA

2.1.2 External Advisory Board (EAB)

a. Process and responsibilities

The EAB, chaired by the Coordinator, is composed of external experts, which will bring their expertise and ensure an external point of view concerning the implementation of the project. This organisational and decision-making structure will cover all necessary competencies regarding quality project implementation, supervision, and correction actions, if necessary, based on the complexity of procedures. The EAB will receive updates and reports on the project's progress and related outputs and provide the GAs with strategic and technical actionable feedback.

The external advisory board will act as an independent external body that reviews the project's progress, and provides advice and guidance.

The EAB will aim to:

- provide ongoing connection and compliance to legal and economic requirements to reach acceptance and model relevant infrastructure for SWARM grids in the pilot sites – Rwanda and Tanzania;
- provide expert advice, feedback, and input into a better understanding of the barriers facing effective local communities, prosumers, and local, national, and regional authorities in terms of energy demand and supply;
- build relationships with stakeholders in the project pilot and replication countries; and internationally, where relevant,
- promote and enhance the external communication activities of the project.

The EAB will meet once annually and be responsible for supervising the achievement of the project's objectives, overseeing the project developments, results, constraints, obstacles, and ways to overcome them.

b. Members

A preliminary list of External Advisory Board members has been outlined below.

The external advisory board will have two subsections within it:

- The *Ethics panel*, part of EAB, will supervise and monitor the ethical aspects of the project. It will advise the GAs and all SWARM-E members on ethical, regulatory, and socio-environmental issues raised by the research and development to be undertaken under SWARM-E.
- The Technical panel, part of EAB, will advise on aspects of the technical implementation of the project, especially on regulatory, financial and technical specifics within project piloting countries when designing and testing SWARM grids.

The External Advisory Board currently consists of the following representatives:

Delegate		**Institution**
Dr. Christian von Hirschhausen	cvh@wip.tu-berlin.de	Technical University Berlin
Dr. Jens Weibezahn	jew.eco@cbs.dk	Copenhagen School of Energy Infrastructure (CSEI) at Copenhagen Business School (CBS)
Dr. Lucienne Blessing	lucienne_blessing@sutd.edu.sg	Singapore University of Technology and Design (SUTD)
Alejandro Crawford	ale@rebelbase.co	Bard MBA in Sustainability and Global Lead for OSUN Social Entrepreneurship, CEO RebelBase
Dr. Peter Adelmann	peter.adelmann@id-eee.net	id-eee Institute for decentralized electrification

Table 4 SWARM-E EAB members

2.1.3 Steering Committee in Rwanda

The Steering Committee in Rwanda will have a rotating chair. It aims to align country actions within and across the WP activities and liaise with local stakeholders. The SC will consist of the 3 representatives from each country and will convene regularly (every next meeting is decided during the current one). The findings and decisions of the Steering Committee will inform the GAs meetings.

2.1.4 Steering Committee in Tanzania

The Steering Committee in Rwanda will have a rotating chair. It aims to align country actions within the WP activities and liaise with local stakeholders. The SC will consist of the 3 representatives from each country and will convene regularly (every next meeting is decided during the current one). The findings and decisions of the Steering Committee will inform the GAs meetings.

2.2 Project Management Roles

2.2.1 Project Coordinator

The Project Coordinator (PC) is responsible for the coordination and management of the overall project. MEI will coordinate the project, with the PC role being assigned to Dr. Raluca Dumitrescu. She has more than 10 years of experience in managing multi-stakeholder projects and coordinating consortia for international organisations such as the World Bank, Inter-American Development Bank, GIZ, KfW, African Development Bank. Raluca brings in extensive expertise and lessons learned on carrying out large-scale surveys on energy needs and demand assessment, ability and willingness to pay for decentralised renewable energy solutions, measurements on the ESMAP Multi-Tier Framework and progress towards SDG 1, 5, 7, and 13, monitoring and evaluation of projects, with end-users (both households and MSMEs) in Africa (Tanzania, Kenya, Rwanda, Ethiopia, Mozambique, Ghana, Ivory Coast), Asia (Bangladesh, Pakistan, Philippines, Nepal), Latin America and the Caribbean (Colombia, Peru, Bolivia, Grenada, Haiti). Raluca holds an MSc. in Finance, and a PhD in Economics of Energy Infrastructure from the Technical University of Berlin.

She takes the overall responsibility for the project, including:

- steering the relationship with the European Commission and the EC Project Officer, including bearing the responsibility for transmitting the contractual documentation between the EC and consortium members,
- transmitting documents and information connected with the Project to any other Parties concerned,
- financial and technical project monitoring, including project funds spending and mitigation of any deviations and technical consistency of project activities and deliverables,
- monitoring compliance by the other consortium members with their obligations as outlined in the GA and CA,
- collecting, reviewing to verify consistency, and submitting deliverables and specific documents (as requested) to the EC,
- acting as the chair of the GA as described above,
- handling interaction at the scientific and technical level with WPLs, TLs, and STLs,
- taking specific measures in case project or partner-related issues arise within SWARM-E,
- keeping the address list of Members and other contact persons updated and available.

The PC is not entitled to act or to make legally binding declarations on behalf of any other Party or of the consortium unless explicitly stated otherwise in the Grant Agreement or this Consortium Agreement. She cannot enlarge her role beyond the tasks specified in this Consortium Agreement and the Grant Agreement.

2.2.2 Project manager

The Project manager is responsible for the administrative follow-up of the project. The PM is assigned to Polina Hitova (EP). She has more than 15 years' experience in setting-up and managing projects under different EU and private donor funding programmes in the field of education, energy efficiency and renewable energy, societal challenges and behavioural change, urban agriculture. She has worked in various environments – academic, non-profit, consultancy. The role holder has the responsibility for project, administration, and communication management, as follows:

- providing partners with project management and communication templates,

- in agreement with the PC, preparing project meetings, outlining decisions to be taken therein and preparing and tracking the progress of respective agendas, and minutes of the meetings.
- supporting the PC in implementing and monitoring adequate communication procedures between the PC, GAs, WPL, TL, TIM, DC, EAB to avoid delays, secure smooth implementation, and coordination of activities.
- supporting the PC in communicating with partners on the project's financial and technical progress, including the communication among the partners and the correct and timely preparation of the technical and financial reporting.

2.2.3 Technical and Innovation Manager

The TIM supervises and directs the technical and innovation aspects of the project. The TIM in SWARM-E will be Dr. Hannes Kirchoff, Senior Technical Manager at SOLshare. He is an energy and process engineer, with more than 15 years of experience, and holds an MSc. in Renewable Energy Systems and a PhD in Control Mechanisms of SWARM Grids. Hannes has authored multiple technical and non-technical international publications on the topic of Swarm Electrification. He is involved in standardisation work in IEEE and IEC, has co-authored the VDE DKE "Low Voltage Direct Current Standardization Roadmap", has served in IEC system evaluation groups, and is a member of the IEC System Committee Low Voltage Direct Current (SyC LVDC).

The role of the TIM consists of:

- ensuring that the innovation objectives and potential are fulfilled,
- taking responsibility for the exploitation, dissemination, and potential commercialisation of project results within and outside the member organisations,
- addressing the innovation uncertainties within SWARM-E,
- suggesting decision items to project meetings in terms of project technical implementation (monthly, WP, and GAs),
- If needed, organise specific meetings to make strategic innovation decisions. If the decision is crucial for the project.

2.2.4 Data Controller

The Data Controller (DC) is responsible for the data management and the data management plan within SWARM-E. The DC within the project is Carlos Guerrero Lucendo. With over 15 years of professional experience, out of which 7 years are dedicated to work in East Africa, Carlos applies his skills in cross-cultural communication, data collection, cleaning and analysis, project management, and strategic planning and operations. He is serving as a Senior Researcher on Energy and Climate Strategies and Policies at VITO/EnergyVille (Belgium). In tandem, he also holds the role of International Project Manager, bringing over three years of team management experience to the table. Carlos has a solid background, knowledge, and connections for supporting the SWARM-E project to design and implement data policy and data management plan in line with EU and international standards and aims. He works closely with the PC, as well as the investigators, to ensure that data management is considered throughout the project life cycle. This role is vital in maintaining the standardisation of data practices

Within the project, the DC will be responsible for:

- the overall data management strategy,
- how data, including personal data, sensitive non-personal data, research data, confidential data, and personal and sensitive metadata, used within SWARM-E is collected, cleaned, processed, handled, distributed or safeguarded, stored, and preserved,

- building data collection and tracking tools, data cleaning and validation, data documentation, and organizing data for sharing purposes,
- ensure that GDPR rules are strictly followed by all consortium members and everybody dealing with SWARM-E-related data and datasets.

2.2.5 Work Package Leaders

At the operational level, the work of the project is divided into 8 work packages. Each Work Package will be led by a Work Package Leader (WPL). **Work package leaders** are responsible for:

- Formulating the implementation plan for the activities within the work package,
- Executing the planned activities,
- Coordinating the work of the partners collaborating on that work package,
- Monitoring the progress of the activities towards the specific deliverables and objectives of the work package,
- Identifying key issues that must be discussed with the other work package leaders,
- Reviewing draft deliverables from other work packages,
- Organising, facilitating, and following-up on Work package meetings (on a monthly basis),
- Executing the tasks appointed by the Technical Innovation Board and the GA.

All of the above will be based on mutual understanding on a per WP basis. A list of all responsible persons per work package is kept updated in the project shared space on Google Drive. Partners are responsible for updating in case of changes in the team.

2.2.6 Task leaders and Subtask Leaders

The **Task Leaders (TL**) and **Subtask Leaders (STL)** are assigned with the coordination of separate tasks/subtasks within the work packages. The TL/STL is responsible for the task implementation and its deliverable(s). This person will be directly involved in the task, responsible for the proper completion and the deliverable of its task, and for reporting its progress or any issue encountered to the WPL. Task Leaders (TL) and Sub-task leaders (STL) are responsible for:

- ensuring the progress of their own Task/Subtask,
- coordinating the work of the partners collaborating on that task/subtask,
- aligning the work with other tasks/sub-tasks,
- ensuring that deliverables are produced with the appropriate quality, and scope, on time, and budget.

Contact details of the representatives of all partner organisations in SWARM-E, including WP lists can be found under the project's shared space in Google Drive here:
https://drive.google.com/drive/folders/1RHM5ZH8mgfzyOOukyBM1adjxFbprXd8J

3. CHAPTER III: PROJECT MEETINGS

3.1 *Meeting Types and Frequency*

The following initial internal meeting types and frequencies have been approved during the project's KOM. Whilst it may be subject to amendments and alteration it will serve as the effective structure for the project communication:

- **Bi-weekly (depending on the intensity of the work)** between the project coordinator (MEI) and the project manager (EP)

- **Once a month, WPs meetings** in ongoing work packages to coordinate WPs activities and ensure that possible issues are identified in advance and are solved without affecting the overall project timing.
    - Initiated and chaired by the respective WP leader/s
    - Follow the project dynamics
- **Every three months between** PC, TIM, DC, and PM
- **Management meetings** (every first Wednesday of each month. First one after the KOM is scheduled for 3rd July 2024)
    - Chaired by the Project Coordinator
    - Project steering and strategy
- **External Advisory Board Meetings** (yearly)
    - Chaired by the Project Coordinator
    - Project progress review and high-level direction
- **General Assembly** meetings (every 6 months, during some of the management meetings)
- Other, ad-hoc meetings
    - E.g. technical teams, 1:1

3.2 *Tools*

3.2.1 Email

Email is among the primary means of communication within SWARM-E. All partners' representatives' contact information is available on the project shared space (see above) and shared among all partners.

Several communication levels include:

- **Intra-WP**: mostly between two or three partners; specific issues, technical communication, ad-hoc.
- **Inter-WP**: addressing the issues between different WPs, interfacing, and dependencies. The communication is organised by the relevant WPLs.
- **General Assembly**: delegates are defined in Chapter I of this document. The communications are organised by the PC.

3.2.2 Online Meetings and Web Conferencing Tools

Modern communication tools enable collaborative work and may greatly improve cooperation between different partners. Project teleconferences will be conducted within SWARM-E as described above and when required, each based on its schedule (e.g. management meetings, GAs meetings, WP meetings, task-specific meetings,).

So far SWARM-E partners have used the following web conferencing tools:

- **Microsoft Teams** for larger meetings. Microsoft Teams allows for online face-to-face meetings, screen sharing, co-authoring files, and whiteboarding in Microsoft Teams. The tool has a free plan, whilst a selection of SWARM-E *partners has business plans which have extended functionalities.*
- **Google Meet** for larger meetings. Google Meet is the tool that the Coordinating organisation uses on a daily basis and corresponds to the chosen Google package for the project shared space. It is a complete meetings tool package with high-quality video and a wide range of app integrations. Apart from screen sharing, it also provides cross-platform messaging and file

sharing. The tool has a free plan, whilst a selection of SWARM-E partners has the business plans which have extended functionalities.

The above list however does not prevent partners from utilising other web conferencing tools considering that they provide sufficient functionality and security during the respective meeting.

The chairperson of each teleconference shall decide on the appropriate tool and invite all the relevant attendees.

4. Chapter IV: Deliverable Review and Approval

4.1 *Quality assurance plan for deliverables*

A high level of quality in deliverables is essential to the success and impact of the project. Many deliverables will be available to the public and will thus be accessible long after the project's completion. This quality assurance plan for deliverables has been created to maximize the project's impact and to ensure the above. The plan rests on activities of timely deliverable preparation by all partners involved.

4.1.1 *Deliverable types*

SWARM-E creates deliverables that are either reports or demonstrators as described in Annex I of the Grant Agreement. For deliverables that do not take the form of a written report, a written record will nevertheless be prepared to include supporting material for the accomplishment. For demonstrators, a technical report will be created, capturing the outcomes of the demonstration.

4.1.2 *Deliverable Requirements*

All report deliverables must be prepared in the Microsoft Word format – docx. For collaboration, partners may use other tools. To ensure consistency, a template is constantly available on the shared project Google Drive platform. All deliverables must use the template provided, be written in English, and be proofread using a spell checker. When submitting the final deliverable, it must be converted to the PDF format, before uploading it.

The content of each deliverable depends on the type of deliverable itself. It should cover all the information relevant to the activity in which it results, and all the information needed by other Partners for performing their activities. The responsibility is of its author(s). Nevertheless, the deliverable should meet a set of requirements, based on the following aspects:

Content:

(1) *Relevance*. Presented information should be true to the original objectives set out in Annex 1 of the GA, be relevant to achieve the Project goals, and be focused on the key issues.

(2) *Accuracy*. Information presented must be reliable - all claims need to be proven and/or supported by relevant references.

(3) *Completeness*. The deliverable should include all the necessary information to achieve its purpose.

(4) *Concision.* The deliverable should include only necessary and relevant information and eliminate redundancies.

The deliverables are to have a uniform appearance, structure, and referencing scheme. It is therefore necessary to use the template provided herein and align to the following guiding principles in terms of appearance, structure, and overall presentation:

(1) *Clarity*

- Sentences are short, engaging, and grammatically correct.
- The layout and formatting of the document help readers follow along and make sense of the content.
- Abbreviations are used only when necessary and clearly outlined at the beginning of the document.

(6) *Consistency*

- Ensure there is consistency between different sections, internal document references, related requirements, documents, and other deliverables.
- Ensure that all tables, figures, and charts have been properly referenced.

(7) *Use of language*

- Use specific, definite, and concrete language.
- Check your spelling, grammar, and punctuation.
- Have the deliverable proofread before sending it to reviewers.

All of the requirements described above have been transposed to the Deliverables Reviewing Checklist.

4.2 *Reviewing Procedure*

The SWARM-E project defines the following process and responsibilities to guarantee the quality and relevance of a deliverable:

- WPL organizes and leads a WP meeting on a monthly basis to monitor the implementation of the WP tasks, including due deliverables with TLs and involved partners. The content, form, and contribution of each is agreed upon and tracked down at these meetings to ensure timely delivery. Early indication of any challenges or a possible delay should be flagged immediately providing an explanation, any planned mitigation action, and the anticipated completion date.
- WPLs and TLs inform and discuss the progress of WPs, including due deliverables at the monthly virtual Consortium meetings. Any progress, challenges, and mitigation actions are agreed therein.
- Each task leader is responsible for the deliverables of their task. They are supported in its elaboration by all partners involved in the respective related task/s. They shall use the Deliverable Report Template, available in the shared Google Drive platform, folder Project Management Tools.
- The WPLs are responsible for checking that the respective deliverables will be done on time by the TL and report to the Project Coordinator if any delay is foreseen.
- TIM, PC, and WPL make the first revision of the deliverable which is then returned to the responsible organization.
- To allow sufficient delivery time, the first complete version of the deliverable is to be ready 30 days before the deadline.
- A second revision is done by peers as set out at the beginning of the respective deliverable.
- A final draft is provided to the Project Officer via email 10 days before the deliverable deadline to receive suggestions for improvements to the final version.
- Finally agreed deliverables are submitted to CINEA by the Project Coordinator via the EC Portal at the end of the official delivery month given in Part A.
- In case of the delay of a deliverable the WP leader is responsible for updating the list of deliverables with the new expected delivery date and a comment on the reasons for delay.
- *Note:* The deliverable lead can add reviewer at their discretion based on the specifics of their respective deliverable.

The SWARM-E t project will follow the following timeline to assure timely quality delivery and approval of the deliverables (not valid for D1.1 due in M2, where shorter deadlines apply):

WHEN	WHAT
75 days before the deadline	An official reminder will be sent by the **PC** to the Lead Author(s) and WP Leader responsible for the Deliverable.
60 days before the deadline	A high-level skeleton, incl. design of prototypes and expected length must be submitted to a **review team: Project Coordinator, EAB member, if relevant, TL, and the respective WP Lead**.
50 days before the deadline	The review team 1 responds, approving and/or giving explicit and tangible guidance for improvements/changes.
30 days before the deadline	Once the first complete version of the deliverable is ready the deliverable is distributed to **the review team again** for final comments and amendments.
20 days before the deadline	The peer review team responds with potential additional requests for revisions.
10 days before the deadline	Submission of the final draft of the deliverable to the PC.
1-3 days before the deadline	Any comments of the PO are addressed and the final deliverable is submitted for approval. If no further comments the project coordinator gives final approval and submits.
Following the submission	The submitted deliverable may receive comments or requests for improvement from the EC. The corrective actions will be implemented as soon as possible, not following the schedule above. The responsibility for improvements is with the author/task lead but can be delegated to a specific partner, covering the topic in question.

Table 5 Timeline for deliverables execution

4.3 List of SWARM-E Deliverables

Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D1.1	Project Management Plan	WP1	5 – EP	R-Document	PU – Public	2
D1.2	Data Management Plan – Year 1	WP1	1 – MEI	DMP – Data Management Plan	PU – Public	6

Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D1.3	Risk Management and Ethics Plan – Year 1	WP1	1 – MEI	OTHER	PU – Public	6
D1.4	Data Management Plan – mid term update	WP1	1 – MEI	R-Document, report	PU – Public	24
D1.5	Risk Management and Ethics Plan – Year 4	WP1	1 – MEI	R-Document, report	PU – Public	46
D2.1	Summary on demand side characterisation and measurement, conclusions and recommendations	WP2	1 – MEI	R-Document, report	SEN – Sensitive	6
D2.2	Report including data gathering results, interpretation, application of selection methodology and conclusion	WP2	1 – MEI	R-Document, report	SEN – Sensitive	8
D2.3	Summary on supply side characterisation, inc. mapping of supply chain and identification of knowledge, products and services gaps	WP2	1 – MEI	R-Document, report	SEN – Sensitive	9
D2.4	Demonstration sites and their M&E framework	WP2	3 – VITO	R-Document, report	PU – Public	12
D3.1	Local context report: actors, barriers, and needs assessment, value chains, and development plan	WP3	2 – WUP	R-Document, report	SEN – Sensitive	12
D3.2	Capacity building strategy and implementation plan	WP3	2 – WUP	R-Document, report	PU – Public	12
D3.3	Final capacity building activity report	WP3	7 – RES4AFRICA	R-Document, report	PU – Public	46
D3.4	PUEs Open-Source Knowledge Hub	WP3	2 – WUP	R-Document, report	PU – Public	46
D4.1	SWARM grid topology and technical feasibility per site	WP4	1.1 – SOLshare	R-Document, report	SEN – Sensitive	12

Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D4.2	5 SWARM grids installed, remotely monitored and locally operated	WP4	1.1 – SOLshare	DEM – Demonstrator, pilot, prototype	PU – Public	23
D4.3	RW pilot PUEs solution developed and installed, ready to operate	WP4	8 – OGB Rwanda	DEM – Demonstrator, pilot, prototype	PU – Public	23
D4.4	TZ pilot E-mobility and VPP initiatives ready to operate	WP4	12 – ELI	DEM – Demonstrator, pilot, prototype	PU – Public	23
D5.1	SWARM grid+ performance assessment – mid	WP5	1 – MEI	R-Document, report	PU – Public	36
D5.2	SWARM grid+ performance assessment – end	WP5	1 – MEI	R-Document, report	PU – Public	46
D5.3	Roadmap for local manufacturing	WP5	1 – MEI	R-Document, report	SEN – Sensitive	46
D6.1	Regulatory and policy framework developed	WP6	13 – TAREA	R-Document, report	PU – Public	24
D6.2	Sustainability life cycle assessment of SWARM-E approach in the African context	WP6	4 – INEDIT	R-Document, report	PU – Public	46
D6.3	Circular management strategy and waste management protocol	WP6	4 – INEDIT	R-Document, report	PU – Public	24
D7.1	System map, financial model, and tariffication	WP7	6 – BWB	R-Document, report	SEN – Sensitive	11
D7.2	Business models and value chains of PUSE for local communities	WP7	2 – WUP	R-Document, report	PU – Public	46
D7.3	Cost-benefit analysis of electrification strategies	WP7	3 – VITO	R-Document, report	PU – Public	46
D7.4	Capital stack and sources of capital	WP7	6 – BWB	R-Document, report	SEN – Sensitive	46

Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D7.5	Legal documentation, risk management and governance framework	WP7	6 – BWB	R-Document, report	SEN – Sensitive	24
D7.6	Business and operational plan for scalability and replicability	WP7	1 – MEI	R-Document, report	SEN – Sensitive	46
D8.1	Communication and Dissemination Plan	WP8	7 – RES4AFRICA	R-Document, report	PU – Public	6
D8.2	Communication and Dissemination Toolbox	WP8	7 – RES4AFRICA	DEC – Websites, patent fillings, videos etc	PU – Public	6
D8.3	communication and Dissemination Plan – Update Pilot Start	WP8	7 – RES4AFRICA	R-Document, report	PU – Public	18
D8.4	Communication and Dissemination Plan – Update Mid Pilot	WP8	7 – RES4AFRICA	R-Document, report	PU – Public	36
D8.5	Report on dissemination and communication activities, and synergies	WP8	7 – RES4AFRICA	R-Document, report	PU – Public	48

Table 6 List of SWARM-E Deliverables

To ensure the efficient, timely, and high-quality delivery of all deliverables, the following steps and measures have been undertaken:

- Deliverables types and formatting rules definition.
- Roles and responsibilities definition.
- Peer review of Work Packages.
- Deliverables review timeline.

5. Chapter V: Project Progress Monitoring

5.1 *Work Package Progress Reports*

The project quality will be monitored and managed also through periodic reporting on the work package status, use of resources, risks and issues encountered, and activities planning.

Every 3 months during Year 1 each Work Package leader will fill in a Work Package Progress Report. The regularity of these will be revised after Year 1 to estimate if it may become every 6 months during Year 2 to 4. The Project Manager will remind each Work Package Leader to do so 10 days before the end of the month. The template for the report is available in the shared folder on Google Drive:

https://docs.google.com/document/d/11rCsmzMVg7M2eT-sZIcY5Db3aLPKuzi-/edit#bookmark=id.1fob9te

Work Package Leaders will be asked to report all activities they have performed, risks or issues encountered within the respective work package (including technical activities, communication and dissemination activities, etc.), using the Work Package Progress Report template. WPLs are responsible for gathering all the information on the technical progress in their WP from the task leaders (sub-task leaders) in their respective work packages and compiling a WP report before sending it to the coordinator and Project Manager.

Regular monitoring of project activities allows us to assess if the project is being carried out within scope, at the desired quality, and according to the predefined schedule. The impact on the stakeholders (both in quantitative and qualitative terms) is also being assessed. All of the above allows for the application of corrective actions if necessary.

All work package Progress Reports will be integrated as part of the Project Quality Reviews.

5.2 *Project Quality Reviews*

All work performance quality reviews will be analyzed, and recommendations and remediation/improvement actions will be defined in the *Quality Review Report*.

Project quality reviews will be performed every six months to verify that all project plans and processes are executed as planned and at the expected quality. The objective of the internal report is to monitor the project's technical progress. It will be a summary of the technical work completed, progress on the work which is ongoing as well as an explanation for any deviations from Annex 1 of the GA.

A *Quality Review Checklist* will be used to assess the project's compliance with the planned activities (and related outputs) in domains such as scope, time, cost, quality, project organization, communications, risks, end-user satisfaction. The findings, recommendations, and remediation/improvement actions will be consolidated in the Quality Review Report and reported to the General Assembly. Additionally, the Project Coordinator assisted by the Project Manager, will summarize and document the Quality Review Checklist findings, their impact, recommendations along with any remediation/improvement actions. The project logs will then also be used to document related risks, issues, decisions, and changes.

When controlling and verifying the adequacy of project quality management, the PC will consider all events that may influence adversely or favorably the achievement of project objectives. Moreover, the PM will determine the effectiveness of project processes, look for potential improvements in process efficiencies, analyse measurement results and their effectiveness, and develop Quality Review Reports with the consolidation of the results and recommendations.

The results of the quality assurance activities will be used for improving the quality of project activities and so they may generate change requests for corrective or preventive actions, or updates in project documentation.

5.3 *Quality Control Records*

The quality records (evidence that quality management activities have been performed) are archived in the project repository (Google Drive), under the "Monitor & Control" folder. The different versions of the project artifacts (created at each artifact update) will provide evidence of the performance of these activities.

5.4 Project Templates and Repositories

5.4.1 Management Templates

The project's general templates have been designed based on the standards and rules set out within the project's graphic charter. Thus, in addition to facilitating the management of the project, they also convey the common project visual identity. All partners must be aware of their existence and use them appropriately. All project templates are available under the project's shared folder on Google Drive: https://drive.google.com/drive/folders/110TKn67ltpvR2g02gUtYtr-nw6VUsJjY.

5.4.2 Deliverables template

https://docs.google.com/document/d/11Q3xbeH0GvDhhIwRNPqAv-7Wz20cD1qD/edit?usp=drive_web&ouid=116971301586593705695&rtpof=true

5.4.3 Template for meeting agenda

https://docs.google.com/document/d/11HuzszogV-JBk75vkb4xdJoic6ZHIwq_/edit?usp=drive_web&ouid=116971301586593705695&rtpof=true

5.4.4 Templates for meeting minutes

https://docs.google.com/document/d/11J3Zf3Zt-fi8-30-wm0hrqiY4uIOyVZx/edit?usp=drive_web&ouid=116971301586593705695&rtpof=true

5.4.5 Templates for presentations

https://docs.google.com/presentation/d/11JCRT4KrJeFA8TnoqFPpJ4pxtxUJzqrn/edit?usp=drive_web&ouid=116971301586593705695&rtpof=true

5.5 *Project repositories*

Google Team Drive will be used to collaborate on working and finalized versions of documents. All final versions will be pdf-ed, whereas old versions of files will be archived to avoid partners working on incorrect files.

The PC has taken action to organize the folder intuitively and has spared time during the KOM to orient partners within, accompanied by a follow-up email.

In case of any issues with the access to the shared space, partners will address this to Raluca Dumitrescu: raluca.dumitrescu@microenergy-international.com and Shadrack Omwenga: shadrack.omwenga@microenergy-international.com.

The structure of the shared folder may be updated should there be a need for additional folders.

Figure 4 below illustrates the current structure of the project shared folder.

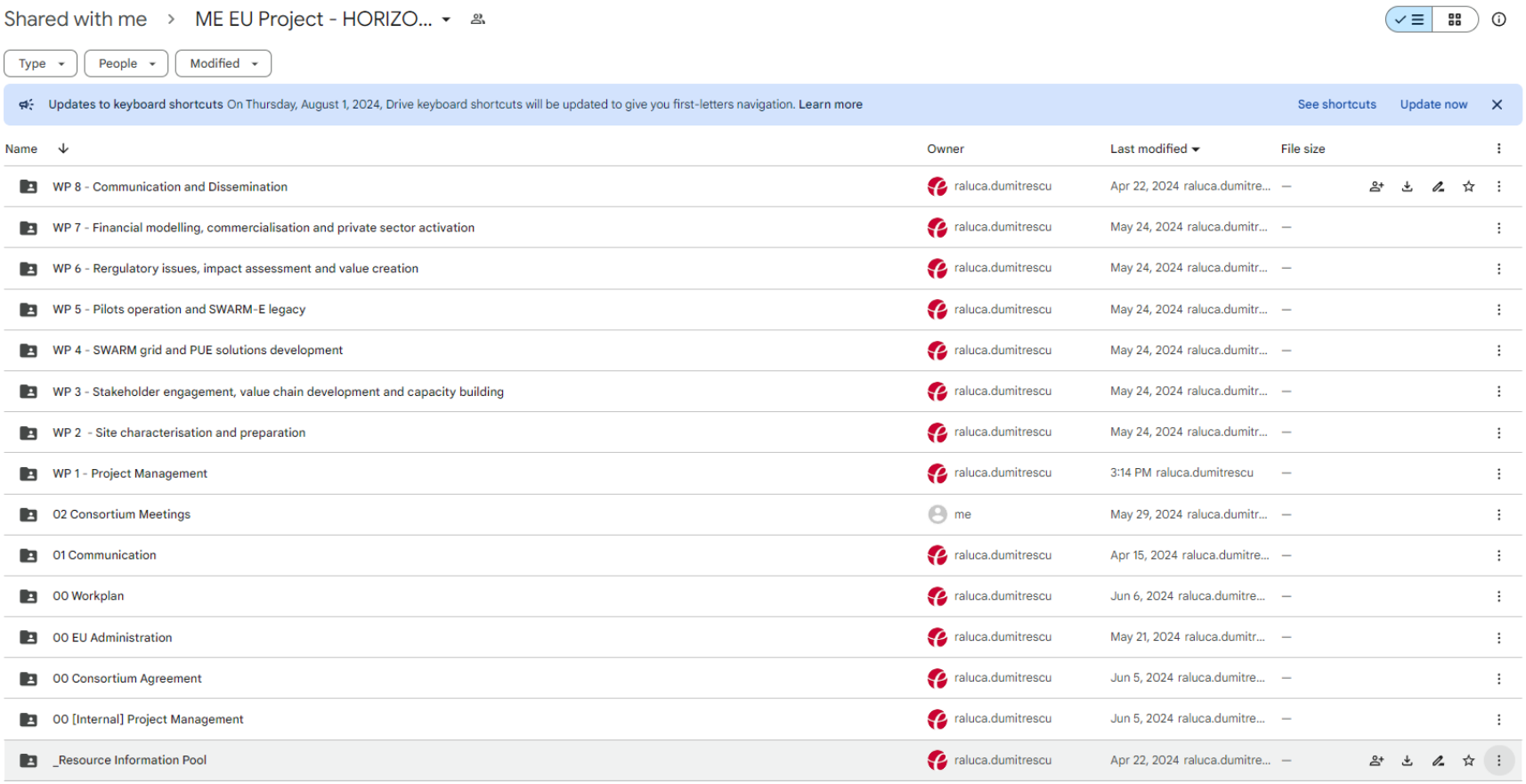


Figure 4 SWARM-E shared folder

6. CHAPTER VI. CODE OF CONDUCT

6.1 Main principles

The SWARM-E consortium will act in compliance with:

- ethical principles (including the highest standards of research integrity) and

- applicable EU, international, and national law, including the EU Charter of Fundamental Rights and the European Convention for the Protection of Human Rights and Fundamental Freedoms and its Supplementary Protocols.

In addition, the beneficiaries will respect the fundamental principle of research integrity — as set out in the European Code of Conduct for Research Integrity, which implies compliance with the following principles:

- reliability in ensuring the quality of research reflected in the design, the methodology, the analysis, and the use of resources

- honesty in developing, undertaking, reviewing, reporting, and communicating research in a transparent, fair, and unbiased way respect for colleagues, research participants, society, ecosystems, cultural heritage, and the environment

- accountability for the research from idea to publication, for its management and organisation, for training, supervision, and mentoring, and its wider impacts

6.2 *PM code of conduct*

In the implementation of the project management activities, the project partners will comply with the following set of principles and values outlining the responsibilities and professional practices for individuals and organizations for the entire project cycle.

Communication

- *to act with responsibility and respect toward all stakeholders and society including*

- making decisions and taking actions based on the best interests of society, public safety, and the environment.
- accepting only those assignments that are consistent with our background, experience, skills, and qualifications
- fulfilling the commitments undertaken
- when errors or omissions occur, taking ownership and making corrections promptly
- informing and upholding the policies, rules, regulations, and laws
- reporting unethical or illegal conduct to the appropriate management

- *to act with respect*

- informing ourselves about the norms and customs of others and avoiding engaging in behaviors they might consider disrespectful
- listening to others' points of view, seeking to understand them
- approaching directly those persons with whom we have a conflict or disagreement
- professionally conducting ourselves, even when it is not reciprocated
- negotiating in good faith

- not exercising the power of our expertise or position to influence the decisions or actions of others to benefit personally at their expense
- not acting in an abusive manner toward others.
- respecting the property rights of others.

- *to act with honesty providing accurate information on time and being truthful in communication and conduct*
- *to respect the right to confidentiality and privacy of all individuals who are involved in the project activities and to use information only for the work-related purposes for which it was intended*
- *to respect intellectual property rights.*

Quality

- *to provide the highest quality of results*
- *to ensure that project results comply with the needs of the stakeholders involved in the project*
- *to monitor the progress of the project regularly*

Interests

- *to be aware of the various interests of the stakeholders involved in the project*
- *to consider possible conflicts of interest in a project consortium proactively with the partners.*