

Introduction to Detailed Work Plan

As a project, REGACE is fairly complex involving different kinds of tasks that require somewhat different project management methodologies to achieve the results specified in the REGACE grant agreement. The overall approach outlined in this work plan is to consider the merits of various project management methodologies, and to choose which elements of the various work packages are best suited to selected methodologies.

The classic waterfall project management methodology has clarity of structure and ease of control but it is not really suited to collaborative enterprises of this kind, especially since in this project has a high level of interdependency between several work packages. As such, one or several of the many variants of agile project management seem most suitable, even though the time frames of several of the elements in this consortia's project are longer than in most agile methodologies.

One of the principles of agile planning used in this overall work plan stems from the nature of all Horizon consortia and of this consortium in particular. The basic fact is that all partners are experts in their fields and have knowledge and insights that are not necessarily shared by other partners. As such, each of the partners played a part in translating the elements of their tasks and work packages into the action items and schedules that constitute a work plan. Another principle of agile planning is the need for cross team collaboration which is an essential part for the project both in the planning stages, the execution and the analysis of results.

As a result of the insights and discussions during the REGACE kickoff meeting it became clear that even those that seemed to be ostensibly separate from the rest and thus suitable for waterfall-style project management were also iterative and consultative. This became clear when WP 6 leader Prof. Andrea Volteranni introduced the concept of co-development in which farmers would help define the kind of installation in each location. This made sense in terms of lessons learned in a pre-kickoff tour of the FCS. We had originally conceived of WP 6 as a standalone WP which would influence final outcomes, but not the operative work packages. This was not a satisfactory approach, and as such we found that we needed to change our planning methodology. The interaction between the partners in the kickoff meeting required this change and we must anticipate further changes ahead and choose the project management methodologies best suited to such changes.

In this detailed presentation of each work package will be preceded with a brief analysis in which we consider several interlocking factors:

- a) To what extent is the content of the work package iterative, what actions require repetition and whether the repeating actions are identical or change according to local and other circumstances



- b) To what extent are all or part of the tasks dependent of the completion of other tasks in this work package or in other work packages?
- c) Is this dependency static or flexible? Or in other words does a delay in task A cause an equal delay in task B (flexible) or is task B not movable (like an important deliverable)
- d) What kind of information the work package will generate and will this information be used in other work packages? If it will be used is the information flow flexible or static in terms of times?

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The project is using the Monday project management software because of its flexibility, third party applications and ability to communicate from and to the platform with users who are not subscribers.

The process of developing this work plan involved four stages:

1. Entering the various tasks outlined in the DoA annex of the Grant Agreement into the Monday application
2. Work by the coordinator, AZS, to expand these tasks into subtasks and other items with timelines and deadlines
3. A process of dialogue between the coordinator and each of the partners to hear their comments and suggestions about both the tasks in which they are directly involved and tasks that have impact or dependency with their tasks
4. Entering the results of this dialogue into the Monday application.

Presentation

Besides satisfying the required contractual obligation this work plan is intended to serve as a tool for all participants, first so that each partner will have an overall picture of the entire project and second, through the Monday application, as a day to day management tool. As such the basic format is of screenshots from the Monday application followed by Gantt charts for each work package. A Gantt chart of the entire project is too large and cumbersome to use.

This plan is based on the DOA. During the work on the plan the coordinator and various partners realized that there were several obvious mistakes in the plan and that the required changes need require amendments to the Grant Agreement. This plan is based on the original DOA without amendments since these changes have not been approved and will be changed after the amendments have been approved.



WP 1 Potentials of the synergies of innovative and intelligent agrivoltaic systems

Task leader University of the Thessaly M1-M6

WP 1 is a relatively simple work package. Its main vulnerability is on the dependence on data from all partners in the energy audits section

Synergies creation

Manage your individual project from this board. Set up tasks, owners, timelines, and more. See [See More](#)

Main Table | Tasks Assigned To... | Project Dashboard | Gantt | Chart | Kanban | Gantt | Dashboard | + [Integrate](#) [Auto](#)

New Task Search Person Filter Sort Hide ...

- Energy flows / energetic synergies (light, heat, CO2 enrichment...)

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Comp
<input type="checkbox"/>	Energy flows / energetic syne...		Working on it	Feb 1 - May 1	-	May 1	
<input type="checkbox"/>	Spatial synergies (existing gre...		Working on it	Feb 1 - May 1	-	May 1	
<input type="checkbox"/>	Material flows (water, nutrient...		Working on it	Feb 1 - May 1	-	May 1	
<input type="checkbox"/>	Visual representation of the r...		Working on it	Feb 1 - May 1	-	May 1	
<input type="checkbox"/>	+ Add task						

Provide Update on Month 2

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Comp
<input type="checkbox"/>	Send Lead org an update		Working on it	Mar 31 - Apr 1	-	Apr 3	

Energy audits

Manage your individual project from this board. Set up tasks and owners, view the project's g... [See More](#)

Main Table | Project Dashboard | Gantt | Tasks assigned to me | + [Integrate](#) [Auto](#)

New Task Search Person Filter Sort Hide ...

Energy audits

<input type="checkbox"/>	Task	Owner	Text	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	Preparation of template for the ...			Done	Mar 17 - 30	-	Mar 17
<input type="checkbox"/>	Preparation of questionnaire for...			Done	Mar 17 - 30	-	Mar 17
<input type="checkbox"/>	Ask partners for data for Energy...		Please see attache...	Done	Feb 28 - Mar 24	-	Jun 1
<input type="checkbox"/>	Finalization of template for the ...			Working on it	Mar 1 - 24	-	Mar 24
<input type="checkbox"/>	Get energy audits from partners			Working on it	May 1 - Jun 9	Ask partners for...	Jun 9
<input type="checkbox"/>	Energy Evaluations			Working on it	Apr 24 - May 26	Ask partners for...	Jul 9
<input type="checkbox"/>	+ Add task						

writing reports

<input type="checkbox"/>	Task	Owner	Text	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	Write draft Estimation of the sy...		Please see attache...	Working on it	May 27 - Jun 1	-	Jun 1
<input type="checkbox"/>	Write draft Energy audit report		Please see attache...	Working on it	May 27 - Jun 1	-	Jun 1
<input type="checkbox"/>	Submit Wp 1 deliverable		Please see attache...		-	Energy Ev... +4	Jun 26



			<u>Boards - Synergies creation (by quarters)</u>													
			2023													
	Start	End	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
- Energy flows / energetic synergies			- Energy flows / energetic synergies (light, heat, CO2 enrichment)													
Energy flows / energetic synergies (light, heat, CO2 enrichment) (light, heat, CO2 enrichment)	01-Feb-2023	01-May-2023	Energy flows / energetic synergies (light, heat, CO2 enrichment) (light, heat, CO2 enrichment)													
Spatial synergies (existing greenhouses and indoor PV construction)	01-Feb-2023	01-May-2023	Spatial synergies (existing greenhouses and indoor PV construction)													
Material flows (water, nutrients, substrates) (01-Feb-23)	01-Feb-2023	01-May-2023	Material flows (water, nutrients, substrates) (01-Feb-23)													
Visual representation of the results in a flow chart (01-Feb-23)	01-Feb-2023	01-May-2023	Visual representation of the results in a flow chart (01-Feb-23)													
Provide Update on Month 2			Provide Update on Month 2													
Send Lead org an update	31-Mar-2023	01-Apr-2023	Send Lead org an update													

	Start	End	Feb	Mar	Apr	May	Jun	Jul
Energy audits			Energy audits					
Ask partners for data for Energy Eval	28-Feb-2023	24-Mar-2023	r Energy Evaluations					
Finalization of template for the ener	01-Mar-2023	24-Mar-2023		collaborat				
Preparation of template for the ener	17-Mar-2023	30-Mar-2023		gy audits c				
Preparation of questionnaire for the	17-Mar-2023	30-Mar-2023		for the syn				
Energy Evaluations	24-Apr-2023	26-May-2023			valuations (24-Apr-23 -			
Get energy audits from partners	01-May-2023	09-Jun-2023				from partners (01-M		
writing reports			writing reports					
Write draft Estimation of the synergy	27-May-2023	01-Jun-2023				als of intelligent PV gr		
Write draft Energy audit report	27-May-2023	01-Jun-2023				y audit report (27-Ma		



WP 2 Implementation

Lead Partner: TriSolar M1-M36

One of the most complex work packages, that requires constant oversight and ability to change plans

Main vulnerabilities:

1. Supply chain issues in delivery of panels and other equipment
2. Regulatory issues in grid-connected installations
3. Design delays
4. Locating qualified installers available at the right time frames

Task 2.1 Design adaptation, construction, installation and maintenance of the crop responsive PV tracking system in different locations

✓ Allowable grid connection protocols and permissions

<input type="checkbox"/>	Task	Owner	Status	Timeline	Duration	Depende
<input type="checkbox"/>	Protocol specification - Send out Email for partners		Done	Jan 13 - 21	9 days	-
<input type="checkbox"/>	> Allowable grid connection protocols and permission... 2		Done	Jan 22 - 30	9 days	Protocol
<input type="checkbox"/>	Summary of existing regulations in installation locations		Working on it	Apr 30 - May 28	29 days	-
<input type="checkbox"/>	+ Add task					

✓ Alzahrawy (AZS) design guidelines

<input type="checkbox"/>	Task	Owner	Status	Text	Timeline	Completion Date
<input type="checkbox"/>	3D scan AZS		Done		✓ -	Feb 27
<input type="checkbox"/>	3D planning AZS		Done		✓ Feb 27 - Apr 1	May 31
<input type="checkbox"/>	Electric permit AZS		Done		✓ Feb 1 - May 31	Feb 27
<input type="checkbox"/>	> Restrictions AZS 2		Done		✓ Feb 1 - May 31	Feb 27
<input type="checkbox"/>	> Controller adaptation AZS 1		Working on it		Mar 1 - May 1	May 31
<input type="checkbox"/>	> Deliverable - AZS Design guideline 4		Working on it		May 31	May 31
<input type="checkbox"/>	+ Add task					

✓ Humboldt Uni (HU) design guidelines

<input type="checkbox"/>	Task	Owner	Status	Text	Timeline	Completion Date
<input type="checkbox"/>	3D planning HU		Working on it		Mar 1 - 30	
<input type="checkbox"/>	Electric permit HU		Working on it		Mar 1 - Jun 28	
<input type="checkbox"/>	> Restrictions HU 2		Working on it		Mar 1 - Jun 28	
<input type="checkbox"/>	> Controller adaptation HU 1		Working on it		Feb 1 - May 31	
<input type="checkbox"/>	> Deliverable - HU Design 4		Working on it		May 31	
<input type="checkbox"/>	+ Add task					



▼ BOKU Design guideline

<input type="checkbox"/>	Task		Owner	Status	Text	Timeline	Completion Date
<input type="checkbox"/>	3D planning BOKU	+		Working on it		Mar 1 - 31	
<input type="checkbox"/>	Electric permit BOKU	+		Working on it	fix	Mar 1 - Jun 28	
<input type="checkbox"/>	> Restrictions BOKU 2	+		Working on it		Feb 1 - May 31	
<input type="checkbox"/>	> Controller adaptation BOKU 1	+		Working on it		Feb 1 - May 31	
<input type="checkbox"/>	> Deliverable - BOKU Design 4	+		Working on it		May 31	
<input type="checkbox"/>	+ Add task						
						Feb 1 - Jun 28	

▼ Bio Watzkendorf BW Design guideline

<input type="checkbox"/>	Task		Owner	Status	Text	Timeline	Completion Date
<input type="checkbox"/>	3D planning BW	+				Mar 1 - 31	
<input type="checkbox"/>	Electric permit BW	+			fix	Mar 1 - Jun 28	
<input type="checkbox"/>	> Restrictions BW 2	+				Feb 1 - May 31	
<input type="checkbox"/>	> Controller adaptation BW 1	+				Feb 1 - May 31	
<input type="checkbox"/>	> Deliverable - BW Design 4	+				May 31	
<input type="checkbox"/>	+ Add task						
						Feb 1 - Jun 28	

▼ Thessaly Uni (UTH) Design guideline

<input type="checkbox"/>	Task		Owner	Status	Text	Timeline	Completion Date
<input type="checkbox"/>	3D planning UTH	+				Mar 1 - 31	
<input type="checkbox"/>	Electric permit UTH	+			fix	Mar 1 - Jun 28	
<input type="checkbox"/>	> Restrictions UTH 2	+				Feb 1 - May 31	
<input type="checkbox"/>	> Controller adaptation UTH 1	+				Feb 1 - May 31	
<input type="checkbox"/>	> Deliverable - UTH Design 4	+				May 31	
<input type="checkbox"/>	+ Add task						










▼ FSC guideline

<input type="checkbox"/>	Task		Owner	Status	Text	Timeline	Completion Date
<input type="checkbox"/>	Design shading for greens in summer FSC	+		Working on it		-	
<input type="checkbox"/>	3D planning FSC	+				Mar 1 - 31	
<input type="checkbox"/>	Electric permit FSC	+			fix	Mar 1 - Jun 28	
<input type="checkbox"/>	> Restrictions FSC 2	+				Feb 1 - May 31	
<input type="checkbox"/>	> Controller adaptation FSC 1	+				Feb 1 - May 31	
<input type="checkbox"/>	> Deliverable - FSC Design 4	+				May 31	
<input type="checkbox"/>	+ Add task						









Task 2.1.2 Adapted tracker manufacture



Adapted tracker manufacture Group




Task	Owner	Status	Timeline	Text	Completion Date	Dependent On
<input type="checkbox"/> List of component for each locat...		Working on it	May 1 - 15		May 15	-
<input type="checkbox"/> Subitem	Owner	Status	Timeline	Due Date	Dependency	
<input type="checkbox"/> AZS List of Components		Working on it	May 1 - 15	Jul 31	Deliverable - AZS Design gui...	
<input type="checkbox"/> FSC Italy list of components		Working on it	May 1 - 15	Jul 31	Deliverable - FSC Design	
<input type="checkbox"/> UTH List of Components		Working on it	May 1 - 15	Jul 31	Deliverable - UTH Design	
<input type="checkbox"/> BOKU List of Components		Working on it	May 1 - 15	Jul 31	Deliverable - BOKU Design	
<input type="checkbox"/> BW List of Components		Working on it	May 1 - 15	Jul 31	Deliverable - BW Design	
<input type="checkbox"/> HU List of Components		Working on it	May 1 - 15	Jul 31	Deliverable - HU Design	
<input type="checkbox"/> + Add subitem						
<input type="checkbox"/> Order the parts		Working on it	May 15 - 19		May 28	-
<input type="checkbox"/> certifications for parts		Working on it	-			-
<input type="checkbox"/> + Add task						
			May 1 - 19			

Task 2.1.3 Tracker installation guideline for different ty...




Task	Owner	Status	Timeline	
<input type="checkbox"/> Guideline for different types of greenhouse		Working on it	May 31 - Sep 29	depende
<input type="checkbox"/> compile design and installation guidelines			Jun 1 - Sep 30	
<input type="checkbox"/> Subitem	Owner	Status	Due Date	Timeline
<input type="checkbox"/> Tracker installation guideline - BOKU		Future action		Jun 1 - Sep 30
<input type="checkbox"/> Tracker installation guideline - AZS		Future action		Jun 1 - Sep 30
<input type="checkbox"/> Tracker installation guideline - UTH		Future action		Jun 1 - Sep 30
<input type="checkbox"/> Tracker installation guideline - FSC		Future action		Jun 1 - Sep 30
<input type="checkbox"/> Tracker installation guideline - BW		Future action		Jun 1 - Sep 30
<input type="checkbox"/> Tracker installation guideline - HU		Future action		Jun 1 - Sep 30
<input type="checkbox"/> + Add subitem				

Task 2.1.4 Tracker installation

AZS Tracker installation

Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/> Tracker Installation AZS		Future steps	Jul 1	-	
<input type="checkbox"/> Controller tuning AZS		Working on it	Aug 1	Tracker Installati...	
<input type="checkbox"/> sample testing and validatio...		Future steps	May 1 - 31	-	
<input type="checkbox"/> + Add task					
			May 1 - Aug 1		

BOKU Tracker installation

Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/> Arrange installation visit BOK...		Future steps	Jun 1 - 30	-	
<input type="checkbox"/> Tracker Installation BOKU		Future steps	Jul 31	-	
<input type="checkbox"/> Controller tuning BOKU		Future steps	Aug 1	Tracker Installati...	
<input type="checkbox"/> + Add task					
			Jun 1 - Aug 1		



▼ BW tracker installation

<input type="checkbox"/>	Task		Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Arrange installation visit BW			Future steps	Jun 1 - 30	-	
<input type="checkbox"/>	Tracker installation Germany ...			Future steps	Jul 31	-	
<input type="checkbox"/>	Controller tuning BW			Future steps	Aug 1	Tracker installati...	
<input type="checkbox"/>	+ Add task						
					Jun 1 - Aug 1		

▼ HU tracker installation

<input type="checkbox"/>	Task		Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Arrange installation visit HU			Future steps	Jun 1 - 30	-	
<input type="checkbox"/>	Tracker installation HU			Future steps	Jul 31	-	
<input type="checkbox"/>	Controller tuning HU			Future steps	Aug 1	Tracker installati...	
<input type="checkbox"/>	+ Add task						
					Jun 1 - Aug 1		

▼ UTH tracker installation

<input type="checkbox"/>	Task		Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Arrange installation visit UTH			Future steps	Jun 1 - 30	-	
<input type="checkbox"/>	Tracker installation UTH			Future steps	Jul 31	-	
<input type="checkbox"/>	Controller tuning UTH			Future steps	Aug 1	Tracker installati...	
<input type="checkbox"/>	+ Add task						
					Jun 1 - Aug 1		

▼ FSC Tracker Installation

<input type="checkbox"/>	Task		Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Arrange Visit FSC			Future steps	Jun 1 - 30	-	
<input type="checkbox"/>	Tracker Installation FSC			Future steps	Jul 31	-	
<input type="checkbox"/>	Controller tuning FSC			Future steps	Aug 1	Tracker Installati...	
<input type="checkbox"/>	+ Add task						
					Jun 1 - Aug 1		



Task 2.1.5 Tracker maintenance ⓘ ☆

Activity **ME**

Manage your individual project from this board. Set up tasks and owners, view the project's g... [See More](#)

[Main Table](#) | [Project Dashboard](#) | [Gantt](#) | [Tasks assigned to me](#) | [+](#)

[Integrate](#) [A](#)

New Task ▾ 🔍 Search 👤 Person ⚙ Filter ▾ ↕ Sort 🙋 Hide ...

▾ Systems Checks

<input type="checkbox"/>	Task		Owner ⓘ	Status ⓘ	Timeline ⓘ	Dependent On ⓘ	Comple
<input type="checkbox"/>	Data monitoring in all locations to identify problems	+			Jul 31, '23 - Aug 1, '25	-	
<input type="checkbox"/>	Tracker maintenance and system checks at all locations 6	+			Jul 31, '23 - Aug 1, '25	-	
<input type="checkbox"/>	O&M by subcontractor for all locations	+			Jul 31, '23 - Aug 1, '25	-	
<input type="checkbox"/>	+ Add task				Jul 31, '23 - Aug 1, '25		



	Start	End	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Allowable grid connection protocols			Allowable grid connection protocols and permissions								
Protocol specification - Send out Em	13-Jan-2023	21-Jan-2023				t Email for					
Allowable grid connection protocols	22-Jan-2023	30-Jan-2023				lations rela					
send email to partners	31-Oct-2022	31-Oct-2022	tners (31-C								
Summary of existing regulations in ir	30-Apr-2023	28-May-2023							ns in installation loca		



			Boards - Greenhouse specific tracker design adaptation (
			2023											
	Start	End	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Phases of structural elements survey			Phases of structural elements survey											
Email to partners to get greenhouse	01-Feb-2023	09-Feb-2023	house info											
Visits to different Greenhouse locati	01-Feb-2023	01-Mar-2023	greenhouse location (01											
Compile information from emails	10-Feb-2023	10-Mar-2023	on from emails (10-F											
Alzahrawy (AZS) design guidelines			Alzahrawy (AZS) design guidelines											
Electric permit AZS	01-Feb-2023	31-May-2023	Electric permit AZS (01-Feb-23 - 31-May-23)											
Restrictions AZS	01-Feb-2023	31-May-2023	Restrictions AZS (01-Feb-23 - 31-May-23)											
follow up on questionnaire AZS	01-Apr-2023	01-Apr-2023	naire AZS (
follow up on regulatory task AZS	01-Apr-2023	01-Apr-2023	y task AZS											
3D planning AZS	27-Feb-2023	01-Apr-2023	Planning AZS (27-Feb-23 - 01-Apr											
Controller adaptation AZS	01-Mar-2023	01-May-2023	adaptation AZS (01-Mar-23 - 01											
Milestone - AZS Design guideline	31-May-2023	31-May-2023	guideline (
AZS electric schematic plan	16-Apr-2023	16-Apr-2023	ic plan (16											
AZS string plan	16-Apr-2023	16-Apr-2023	y (16-Apr-2											
AZS system model illustration	30-Apr-2023	30-Apr-2023	stration (3											
AZS system book	30-Apr-2023	30-Apr-2023	ok (30-Apr											
Humboldt Uni (HU) design guideline			Humboldt Uni (HU) design guidelines											
Controller adaptation HU	01-Feb-2023	31-May-2023	troller adaptation HU (01-Feb-23 - 31-May											
3D planning HU	01-Mar-2023	30-Mar-2023	y (01-Mar-											
Electric permit HU	01-Mar-2023	28-Jun-2023	Electric permit HU (01-Mar-23 - 28-Jun-23)											
Restrictions HU	01-Mar-2023	28-Jun-2023	Restrictions HU (01-Mar-23 - 28-Jun-23)											
follow up on regulatory task HU	15-Apr-2023	15-Apr-2023	y task HU (
follow up on questionnaire HU	15-Apr-2023	15-Apr-2023	naire HU (
Milestone - HU Design	31-May-2023	31-May-2023	sign (31-M											
electric schematic plan HU	16-Apr-2023	16-Apr-2023	lan HU (16											
string plan HU	16-Apr-2023	16-Apr-2023	y (16-Apr-2											
system model illustration HU	30-Apr-2023	30-Apr-2023	tion HU (3											
system book HU	30-Apr-2023	30-Apr-2023	U (30-Apr											
BOKU Design guideline			BOKU Design guideline											
Restrictions BOKU	01-Feb-2023	31-May-2023	Restrictions BOKU (01-Feb-23 - 31-May-23)											
follow up on regulatory task BOKU	15-Apr-2023	15-Apr-2023	task BOKU											
follow up on questionnaire (BOKU)	15-Apr-2023	15-Apr-2023	naire (BOKU											
Controller adaptation BOKU	01-Feb-2023	31-May-2023	troller adaptation BOKU (01-Feb-23 - 31-Ma											
3D planning BOKU	01-Mar-2023	31-Mar-2023	U (01-Mar-											
Electric permit BOKU	01-Mar-2023	28-Jun-2023	Electric permit BOKU (01-Mar-23 - 28-Jun-23)											
Milestone - BOKU Design	31-May-2023	31-May-2023	esign (31-M											
electric schematic plan BOKU	16-Apr-2023	16-Apr-2023	in BOKU (1											
string plan BOKU	16-Apr-2023	16-Apr-2023	U (16-Apr-											
system model illustration BOKU	30-Apr-2023	30-Apr-2023	ion BOKU (
system book BOKU	30-Apr-2023	30-Apr-2023	KU (30-Apr											
Bio Watzkendorf BW Design guideline			Bio Watzkendorf BW Design guideline											
Restrictions BW	01-Feb-2023	31-May-2023	Restrictions BW (01-Feb-23 - 31-May-23)											
follow up on regulatory task BW	15-Apr-2023	15-Apr-2023	y task BW (
follow up on questionnaire BW	15-Apr-2023	15-Apr-2023	naire BW (
Controller adaptation BW	01-Feb-2023	31-May-2023	troller adaptation BW (01-Feb-23 - 31-May											
3D planning BW	01-Mar-2023	31-Mar-2023	V (01-Mar-											
Electric permit BW	01-Mar-2023	28-Jun-2023	Electric permit BW (01-Mar-23 - 28-Jun-23)											
Milestone - BW Design	31-May-2023	31-May-2023	sign (31-M											
electric schematic plan BW	16-Apr-2023	16-Apr-2023	lan BW (16											
string plan BW	16-Apr-2023	16-Apr-2023	y (16-Apr-2											
system model illustration BW	30-Apr-2023	30-Apr-2023	tion BW (3											
system book BW	30-Apr-2023	30-Apr-2023	W (30-Apr											
Thessaly Uni (UTH) Design guideline			Thessaly Uni (UTH) Design guideline											
Restrictions UTH	01-Feb-2023	31-May-2023	Restrictions UTH (01-Feb-23 - 31-May-23)											
follow up on regulatory task (UTH)	15-Apr-2023	15-Apr-2023	y task (UTH											
follow up on questionnaire UTH	15-Apr-2023	15-Apr-2023	naire UTH											
Controller adaptation UTH	01-Feb-2023	31-May-2023	troller adaptation UTH (01-Feb-23 - 31-Ma											
3D planning UTH	01-Mar-2023	31-Mar-2023	H (01-Mar-											
Electric permit UTH	01-Mar-2023	28-Jun-2023	Electric permit UTH (01-Mar-23 - 28-Jun-23)											
Milestone - UTH Design	31-May-2023	31-May-2023	sign (31-M											
electric schematic plan UTH	16-Apr-2023	16-Apr-2023	an UTH (16											
string plan UTH	16-Apr-2023	16-Apr-2023	H (16-Apr-2											
system model illustration UTH	30-Apr-2023	30-Apr-2023	tion UTH (E											
system book UTH	30-Apr-2023	30-Apr-2023	TH (30-Apr											
FSC guideline			FSC guideline											
Restrictions FSC	01-Feb-2023	31-May-2023	Restrictions FSC (01-Feb-23 - 31-May-23)											
Controller adaptation FSC	01-Feb-2023	31-May-2023	troller adaptation FSC (01-Feb-23 - 31-May											
3D planning FSC	01-Mar-2023	31-Mar-2023	y (01-Mar-											
Electric permit FSC	01-Mar-2023	28-Jun-2023	Electric permit FSC (01-Mar-23 - 28-Jun-23)											
Milestone - FSC Design	31-May-2023	31-May-2023	sign (31-M											
electric schematic plan FSC	16-Apr-2023	16-Apr-2023	lan FSC (16											
string plan FSC	16-Apr-2023	16-Apr-2023	y (16-Apr-2											
system model illustration FSC	30-Apr-2023	30-Apr-2023	tion FSC (3											
system book FSC	30-Apr-2023	30-Apr-2023	C (30-Apr											

Adapted tracker manufacture Group

	Start	End	Mar-2023	Apr-2023					May-2023			
			26	2	9	16	23	30	7	14	21	28
Adapted tracker manufacture Group			Adapted tracker manufacture Group									
List of component for each location	01-May-2023	15-May-2023						each location / bill of quantities (
AZS List of Components	31-Jul-2023	31-Jul-2023										
FSC Italy list of components	31-Jul-2023	31-Jul-2023										
UTH List of Components	31-Jul-2023	31-Jul-2023										
BOKU List of Components	31-Jul-2023	31-Jul-2023										
BW List of Components	31-Jul-2023	31-Jul-2023										
HU List of Components	31-Jul-2023	31-Jul-2023										
Order the parts	15-May-2023	19-May-2023								(15-May-2		

Develop tracker installation guidelines for different greenhouse types

	Start	End	26	2	9	16	23	30	7	14	21
Task 2.1.3 Tracker installation guide			Task 2.1.3 Tracker installation guideline for different types of greenhouse in all locations								
Guideline for different types of greer	31-May-2023	29-Sep-2023									
compile design and installation guid	01-Jun-2023	30-Sep-2023									
Deliverable D2.1 - Report	30-Sep-2023	30-Sep-2023									



			Boards - Task 2.1.4 Tracker installation (by months)																											
			Feb-2023				Mar-2023				Apr-2023				May-2023				Jun-2023				Jul-2023							
			26	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30					
Installation subcontractor			Installation subcontractor																											
Send Description of required subcon	28-Feb-2023	02-Mar-2023	subcontr																											
get quotes	29-Mar-2023	29-Mar-2023																												
close deal / agreement	30-Apr-2023	30-Apr-2023	ment (30-A																											
AZS Tracker installation			AZS Tracker installation																											
sample testing and validation AZS	01-May-2023	31-May-2023	ple testing and validation AZS (01-May-23 - 31-May-																											
Tracker Installation AZS	01-Jul-2023	01-Jul-2023	in AZS (01-																											
Controller tuning AZS	01-Aug-2023	01-Aug-2023	AZS (01-A																											
BOKU Tracker installation			BOKU Tracker installation																											
Arrange installation visit BOKU	01-Jun-2023	30-Jun-2023	Arrange installation visit BOKU (01-Jun-23 - 30-Jun-23																											
Tracker Installation BOKU	31-Jul-2023	31-Jul-2023	BOKU (31-																											
Controller tuning BOKU	01-Aug-2023	01-Aug-2023	BOKU (01-A																											
BW tracker installation			BW tracker installation																											
Arrange installation visit BW	01-Jun-2023	30-Jun-2023	Arrange installation visit BW (01-Jun-23 - 30-Jun-23)																											
Tracker installation Germany BW	31-Jul-2023	31-Jul-2023	rmany BW																											
Controller tuning BW	01-Aug-2023	01-Aug-2023	BW (01-A																											
HU tracker installation			HU tracker installation																											
Arrange installation visit HU	01-Jun-2023	30-Jun-2023	Arrange installation visit HU (01-Jun-23 - 30-Jun-23)																											
Tracker installation HU	31-Jul-2023	31-Jul-2023	n HU (31-																											
Controller tuning HU	01-Aug-2023	01-Aug-2023	HU (01-A																											
UTH tracker installation			UTH tracker installation																											
Arrange installation visit UTH	01-Jun-2023	30-Jun-2023	Arrange installation visit UTH (01-Jun-23 - 30-Jun-23)																											
Tracker installation UTH	31-Jul-2023	31-Jul-2023	n UTH (31-																											
Controller tuning UTH	01-Aug-2023	01-Aug-2023	UTH (01-A																											
FSC Tracker Installation			FSC Tracker Installation																											
Arrange Visit FSC	01-Jun-2023	30-Jun-2023	Arrange Visit FSC (01-Jun-23 - 30-Jun-23)																											
Tracker Installation FSC	31-Jul-2023	31-Jul-2023	n FSC (31-																											
Controller tuning FSC	01-Aug-2023	01-Aug-2023	FSC (01-A																											


Task 2.1.5 Tracker maintenance

2023												2024												2025																																				
Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																											
Systems Checks																																																												
				Data monitoring in all locations to identify problems (31-Jul-23 - 01-Aug-25)																																																								
				Tracker maintenance and system checks at all locations (31-Jul-23 - 01-Aug-25)																																																								
				O&M by subcontractor for all locations (31-Jul-23 - 01-Aug-25)																																																								




2.2.1 Planning CO2 enrichment systems in greenhouses at different locations


▼ HU: Use of technical CO2 from bottles

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Comple
<input type="checkbox"/>	Co2 enrichment planning of the syste...		Future steps	Jun 1 - Jul 1	-		
<input type="checkbox"/>	+ Add task			Jun 1 - Jul 1			


▼ AZS: organic materials in soil cultures

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Comple
<input type="checkbox"/>	Organic materials in soil cultures AZS		Future steps	Jun 1 - Aug 1	-		
<input type="checkbox"/>	+ Add task			Jun 1 - Aug 1			


▼ BW: CO2 enrichment with organic materials 1 Task

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	
<input type="checkbox"/>	CO2 enrichment with organic materials...		Future steps	Aug 1, '23 - Mar 29, '24	-	Jan 12, 2022	
<input type="checkbox"/>	+ Add task			Aug 1, '23 - Mar 29, '24			


▼ BOKU: Use of CO2 bags

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	
<input type="checkbox"/>	Use of CO2 bags BOKU		Future steps	Oct 20, '23 - Jun 1, '25	-		
<input type="checkbox"/>	+ Add task			Oct 20, '23 - Jun 1, '25			

▼ FSC: Organic materials in soil cultures

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	
<input type="checkbox"/>	Organic materials in soil cultures FSC			Sep 1, '23 - Dec 1, '25	-		
<input type="checkbox"/>	+ Add task			Sep 1, '23 - Dec 1, '25			

▼ UTH: use of technical CO2 from bottles

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	
<input type="checkbox"/>	Use of technical CO2 from bottles UTH		Future steps	Sep 1, '23 - Sep 1, '25	-		
<input type="checkbox"/>	+ Add task			Sep 1, '23 - Sep 1, '25			



2.2.2 Studies on horizontal and vertical CO2 distribution in dif... 📄 ☆ Activity ME


Manage your individual project from this board. Set up tasks and owners, view the project's g... [See More](#)

[Main Table](#) | [Project Dashboard](#) | [Gantt](#) | [Tasks assigned to me](#) | [+](#)


[Integrate](#) 🔄

[New Task](#) ▼ 🔍 Search 👤 Person 🔼 Filter ⬇ Sort 👁 Hide ⋮

▼ Studies on horizontal and vertical CO2 distribution in di...

<input type="checkbox"/>	Task	Owner 📄	Status 📄	Timeline 📄	Dependent On 📄	Completion Date
<input type="checkbox"/>	> Studies on horizontal and vertical CO2 distri... 1 🔊		Future steps	! Aug 31, '22 - Feb 26, '23	-	
<input type="checkbox"/>	+ Add task					
				Aug 31, '22 - Feb 26, '23		

▼ Studies on optimization of CO2 enrichment systems

<input type="checkbox"/>	Task	Owner 📄	Status 📄	Timeline 📄	Dependent On 📄	Completion Date
<input type="checkbox"/>	optimization of CO2 enrichment systems +		Future steps	! Aug 31, '22 - Feb 26, '23	-	
<input type="checkbox"/>	+ Add task					
				Aug 31, '22 - Feb 26, '23		

[+](#) Add new group

2.2.3 Integration of CO2 measurement and control systems i... 📄 ☆ Activity ME




Manage your individual project from this board. Set up tasks and owners, view the project's g... [See More](#)

[Main Table](#) | [Project Dashboard](#) | [Gantt](#) | [Tasks assigned to me](#) | [+](#)

[Integrate](#) 🔄

[New Task](#) ▼ 🔍 Search 👤 Person 🔼 Filter ⬇ Sort 👁 Hide ⋮

▼ Integration of CO2 measurement and control systems...

<input type="checkbox"/>	Task	Owner 📄	Status 📄	Timeline 📄	Duration 📄	Dependent On 📄
<input type="checkbox"/>	Integration of CO2 measurement and contr... 🔊			Mar 1 - Sep 30	214 days	-
<input type="checkbox"/>	> Preparing for data collection 1 +			Mar 1 - Oct 28	242 days	-
<input type="checkbox"/>	Deliverable- Report on CO2 enrichment sys... +			Nov 30	0 days	-
<input type="checkbox"/>	+ Add task					
				Mar 1 - Nov 30	456 days sum	



2.2.1 Planning CO2 enrichment systems in greenhouses at different locations (by years)

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			Boards - 2.2.1 Planning CO2 enrichment systems in											
			2023											
	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
CO2 enrichment protocols for all loc			CO2 enrichment protocols for all locations											
CO2 enrichment protocols for all loc	01-Mar-2023	01-May-2023	protocols for all locations (01-Ma											
HU: Use of technical CO2 from bottl			HU: Use of technical CO2 from bottles											
Co2 enrichment planning of the syst	01-Jun-2023	01-Jul-2023	ing of the system HU											
AZS: organic materials in soil cultur			AZS: organic materials in soil cultures											
Organic materials in soil cultures AZS	01-Jun-2023	01-Aug-2023	ials in soil cultures AZS (01-Jun-2											
BW: CO2 enrichment with organic r			BW: CO2 enrichment with organic materials											
CO2 enrichment with organic materi	01-Aug-2023	31-Oct-2023	with organic materials BW (01-A											
BOKU: Use of CO2 bags			BOKU: Use of CO2 bags											
Use of CO2 bags BOKU	01-Sep-2023	31-Oct-2023	bags BOKU (01-Sep-23											
FSC: Organic materials in soil cultur			FSC: Organic materials in soil cultures											
Organic materials in soil cultures FSC	31-Jul-2023	30-Sep-2023	ials in soil cultures FSC (31-Jul-2											
UTH: use of technical CO2 from bott			UTH: use of technical CO2 from bottles											
Use of technical CO2 from bottles UT	31-Aug-2023	30-Sep-2023	from bottles UTH (31											
Install CO2 system			Install CO2 system											
AZS install CO2 system	01-Jul-2023	30-Nov-2023	AZS install CO2 system (01-Jul-23 - 30-Nov-23) HU install CO2 system (01-Jul-23 - 30-Nov-23) BW install CO2 system (01-Jul-23 - 30-Nov-23) FSC install CO2 system (01-Jul-23 - 30-Nov-23) BOKU install CO2 system (01-Jul-23 - 30-Nov-23) UTH install CO2 system (01-Jul-23 - 30-Nov-23)											
HU install CO2 system	01-Jul-2023	30-Nov-2023												
BW install CO2 system	01-Jul-2023	30-Nov-2023												
FSC install CO2 system	01-Jul-2023	30-Nov-2023												
BOKU install CO2 system	01-Jul-2023	30-Nov-2023												
UTH install CO2 system	01-Jul-2023	30-Nov-2023												



2.2.2 Studies on horizontal and vertical CO₂ distribution in different heating and ventilation systems, optimization of CO₂ enrichment systems

Start	End	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26
Studies on horizontal and vertical CO ₂ distribution in different heating and ventilation systems	31-Aug-2022	26-Feb-2023	Studies on horizontal and vertical CO ₂ distribution in different heating and ventilation systems (31-Aug-22 - 26-Feb-23)																									
Studies on optimization of CO ₂ enrichment systems	31-Aug-2022	26-Feb-2023	optimization of CO ₂ enrichment systems (31-Aug-22 - 26-Feb-23)																									

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2.2.3 Integration of CO₂ measurement and control systems into cloud-based data collection software (by quarters)

			2023									
	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Integration of CO2 measurement and control systems into cloud-based data collection software			Integration of CO2 measurement and control systems into cloud-based data collection software									
Integration of CO2 measurement and control systems into cloud-based data collection software (01-Mar-23 - 28-Oct-23)	01-Mar-2023	30-Sep-2023										
Preparing for data collection (01-Mar-23 - 28-Oct-23)	01-Mar-2023	28-Oct-2023										
Deliverable- Report on CO2 enrichment systems for the	30-Nov-2023	30-Nov-2023										



WP 3 Testing

Lead Partner BOKU

The main challenge in this relatively complex work package is in coordinating scientific input and creating common standards for the data generated by the entire project

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3.2 PV electrical monitoring in greenhouses

Task 3.2. Modeling of the PV modules performance.

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	WP8: Diss
<input type="checkbox"/>	3.1.1: Set up of the measurement site in Tor Vergata Univ...		Working on it	Mar 1 - Sep 30	-	-
<input type="checkbox"/>	3.1.2: Acquisition of the PV panels and installation on the ...		Future steps	Jun 1, '23 - Jul 31, '24	-	-
<input type="checkbox"/>	3.1.3: Measurement of IV Curve, Bifaciality, BIFI, Tempera...		Future steps	Jul 1, '24 - Sep 30, '24	-	-
<input type="checkbox"/>	3.1.4: Monitoring Performance of bifacial modules (long-t...		Future steps	Jul 1, '24 - Dec 31, '25	-	-
<input type="checkbox"/>	3.1.5: Data Analysis		Future steps	Jul 1, '24 - Dec 31, '25	-	-
<input type="checkbox"/>	+ Add task					
				Mar 1, '23 - Dec 31, '25		

3.2.1 electrical performance testing and data collection protocol for the PV

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	WP8: Diss
<input type="checkbox"/>	testing and data collection protocol		Working on it	Feb 1 - Jul 31	-	-
<input type="checkbox"/>	Deliverable- electrical part of test protocol			Oct 1, '25	-	-
<input type="checkbox"/>	+ Add task					
				Feb 1, '23 - Oct 1, '25		

3.2.2 Training of the researchers

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	WP8: Diss
<input type="checkbox"/>	Training of the researchers		Future steps	Aug 1 - Oct 31	-	-
<input type="checkbox"/>	+ Add task					
				Aug 1 - Oct 31		

3.2.3 Data collection in all test locations

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	WP8: Diss
<input type="checkbox"/>	Installation of monitoring equipment		Future steps	Aug 1 - Oct 1	-	-
<input type="checkbox"/>	Data collection cloud		Future steps	Aug 1 - Oct 1	-	-
<input type="checkbox"/>	Data collection		Future steps	Nov 1, '23 - Nov 1, '25	-	-
<input type="checkbox"/>	Deliverable- Testing report part		Future steps	Oct 1, '25	-	-
<input type="checkbox"/>	+ Add task					
				Aug 1, '23 - Nov 1, '25		

3.2.4 The ageing behaviour of the PVs in greenhouse environments

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	WP8: Dissemi...	Connect b
<input type="checkbox"/>	Initial Characterization for aging test		Future steps	Jul 1 - 31	-	-	
<input type="checkbox"/>	Weekly photographic and thermal energy record		Future steps	Nov 1, '23 - Nov 10, '25	-	-	
<input type="checkbox"/>	Indoor accelerating aging test		Future steps	Feb 1, '24 - Apr 30, '24	-	-	
<input type="checkbox"/>	Final Characterization for aging test		Future steps	Jul 1, '25 - Aug 31, '25	-	-	
<input type="checkbox"/>	Deliverable- Testing report part		Future steps	Oct 1, '25	-	-	
<input type="checkbox"/>	+ Add task						
				Jul 1, '23 - Nov 10, '25			

+ Add new group



3.3: Greenhouse microclimate measurements inside the greenhouses

3.3.1: Develop a data collection strategy and microclimate monitoring prot...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completi
<input type="checkbox"/>	Develop a data collection strategy and microclimate monitorin...		Future steps	Apr 1 - Sep 30	-	
<input type="checkbox"/>	Deliverable- Testing report part			Oct 1, '25	-	
<input type="checkbox"/>	+ Add task					
				Apr 1, '23 - Oct 1, '25		

3.3.2: Training of the researchers from each growing site to ensure the repro...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completi
<input type="checkbox"/>	Training of the researchers from each growing site to ensure th...		Future steps	Jun 1 - Oct 31	-	
<input type="checkbox"/>	+ Add task					
				Jun 1 - Oct 31		

3.3.3: Micro-climate data collection

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	Micro-climate data collection		Future steps	Nov 1, '23 - Jul 1, '25	-	Jan 18, 2022
<input type="checkbox"/>	Deliverable- Testing report part		Future steps	Jul 1, '25 - Oct 1, '25	-	Feb 4, 2022
<input type="checkbox"/>	+ Add task					
				Nov 1, '23 - Oct 1, '25		

3.2.4 The ageing behaviour of the PVs in greenhouse environments

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	The ageing behaviour of the PVs in greenhouse environments			Nov 1, '23 - Dec 31, '25	-	
<input type="checkbox"/>	+ Add task					
				Nov 1, '23 - Dec 31, '25		

3.5 Greenhouse Water Efficiency

3.5.1 Determination of water use efficiency for fully closed recirculating irrig...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Com
<input type="checkbox"/>	Instruction by Thorston to Partners			May 1 - Jun 1	-		
<input type="checkbox"/>	Set equipment type needed for this me...			May 1 - Jun 1	-		
<input type="checkbox"/>	Determination of water use efficiency f...			Oct 1, '23 - Dec 1, '25	-	Jan 18, 2022	
<input type="checkbox"/>	+ Add task						
				May 1, '23 - Dec 1, '25			

3.5.2 BOKU Determination of water consumption per yield unit depending ...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Com
<input type="checkbox"/>	Determination of water consumption p...			Nov 1, '23 - Jun 1, '25	-		
<input type="checkbox"/>	Milestone- Testing report part			Oct 1, '25	-		
<input type="checkbox"/>	+ Add task						
				Nov 1, '23 - Oct 1, '25			



3.6 CO2 enrichment as compensation possibility

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3.6.1 Preliminary experiments on selected crops under different lig...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Duration	Dependent On	Planned Effort	Effort Spent
<input type="checkbox"/>	Protocol from Thoroston		Future steps	-		-		
<input type="checkbox"/>	+ Add task							
				Jun 1 - Nov 1	154 days sum		0 hours sum	0 hours sum

3.6.2 Experiments on the effect of CO2 enrichment under PV modules in th...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Duration	Dependent On	Planned Effort	Effort Spent
<input type="checkbox"/>	Installation of monitoring equi...		Future steps	Oct 1, '25		-		
<input type="checkbox"/>	Installation of CO2 fumigatio...		Future steps	Mar 31 - Oct 31	215 days	-		
<input type="checkbox"/>	Data collection		Future steps	Nov 1, '23 - May 31, '25	578 days	-		
<input type="checkbox"/>	Deliverable- Testing report part		Future steps	Oct 20, '25	0 days	-		
<input type="checkbox"/>	+ Add task							
				Mar 31, '23 - Oct 20, '25	793 days sum		0 hours sum	0 hours sum

3.7 Additional lighting as compensation possibility

Planning

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort Spent	Completion I
<input type="checkbox"/>	> Additional lighting as comp... 1			Sep 30, '23 - Mar 1, '25	-			Jan 18, 25
<input type="checkbox"/>	+ Add task							
				Sep 30, '23 - Mar 1, '25		0 hours sum	0 hours sum	



3.5 Greenhouse Water Efficiency

	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3.5.1 Determination of water use ef																								
Instruction by Thornton to Partners	01-May-2023	01-Jun-2023																						
Set equipment type needed for this	01-May-2023	01-Jun-2023																						
Determination of water use efficiency	01-Oct-2023	01-Dec-2025																						
3.5.2 BOKU Determination of water																								
3.5.1 Determination of water use efficiency for fully closed recirculating irrigation system (HUB)																								
Stop to Partners (01-4																								
led for this measur																								
Determination of water use efficiency for fully closed recirculating irrigation system (HUB) (01-Oct-23 - 01-Dec-25)																								
3.5.2 BOKU Determination of water consumption per yield unit depending on the use of PV modules (BOKU, UTH, UR, TRDC)																								

3.6 CO2 enrichment as compensation possibility

	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3.6.1 Preliminary experiments on se																								
Preliminary experiments on selected	01-Jun-2023	01-Nov-2023																						
3.6.2 Experiments on the effect of C																								
Installation of CO2 fumigation & pre	31-Mar-2023	31-Oct-2023																						
Data collection	01-Nov-2023	31-May-2025																						
Installation of monitoring equipmen	01-Oct-2025	01-Oct-2025																						
Deliverable- Testing report part	20-Oct-2025	20-Oct-2025																						
3.6.1 Preliminary experiments on selected crops under different light and CO2 levels in phytoboxes.																								
selected crops under different light and CO2 levels in phytobox																								
3.6.2 Experiments on the effect of CO2 enrichment under PV modules in the greenhouses																								
Installation of CO2 fumigation & preliminary experiments (31-Mar-23 - 31-Oct-23)																								
Data collection (01-Nov-23 - 31-May-25)																								
equipe																								
port part																								

3.7 Additional lighting as compensation possibility

	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Planning			Planning																								
Additional lighting as compensation	30-Sep-2023	01-Mar-2025																									
Additional lighting as compensation possibility (30-Sep-23 - 01-Mar-25)																											



WP 4 Modelling and Digital Twins

Lead partner Tor Vergata

This work package has specific challenges in the unity and applicability of data leading up to the digital twins which aims to provide a predictive framework for future application on the technology in diverse conditions

4.2 Dynamic modelling of the greenhouse microclimate and energy demand

4.1 Bifacial PV characterization

Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort Spent	Completion St
Bifacial PV characterization		Working on it	Jul 1, '23 - Feb 3, '24	-			
+ Add task			Jul 1, '23 - Feb 3, '24		0 hours sum	0 hours sum	N/A

Dynamic modelling of the greenhouse microclimate and energy demand

Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort Spent	Completion Status	3.3: Green
4.2.1: State of the art of greenh...		Working on it	Mar 25 - Apr 30	-				
4.4.2: Identification and testing ...		Working on it	Mar 1 - Oct 31	-				
4.1.3: Definition of the environm...		Future steps	Sep 1 - Nov 30	-				
4.1.4: Acquisition of the real gre...		Future steps	Jun 1, '23 - Dec 31, '24	-				
4.1.5: Mapping of available data ...		Future steps	Sep 1, '23 - Mar 31, '24	-				
4.1.6: Definition of data format f...		Future steps	Nov 1, '23 - Jan 31, '24	-				
4.1.7: Start of data acquisition fr...		Future steps	Mar 31, '24 - Jan 1, '26	-				
4.1.8: Initial simulation with synt...		Future steps	Nov 1, '23 - Jul 31, '24	-				
4.1.9: Definition of model for en...		Future steps	Jul 31, '24 - Feb 1, '25	-				
4.1.10: Model analysis with real ...		Future steps	Aug 1, '24 - Aug 1, '25	-				
4.1.11: Model validation and tuni...		Future steps	Mar 1, '25 - Nov 1, '25	-				
4.1.12: Final results and definitio...			-	-				

4.3 CFD modelling of the greenhouse microclimate

Planning

Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort Spent
4.2.1: State of the art of greenhouse simulation...	PC	Working on it	Feb 1 - Apr 30	-		
ST4.2.2: Identification and testing of the suitabl...	PC	Future steps	Apr 1 - Dec 1	-		
4.2.3: Definition of the environmental and buildi...	PC	Future steps	Oct 1 - Nov 30	-		
4.2.4: Acquisition of the real greenhouses desig...	PC	Future steps	Jul 1, '23 - Jul 1, '24	-		
4.2.5: Mapping of available data in terms of me...	PC	Future steps	Sep 1, '23 - Mar 31, '24	-		
4.2.6: Definition of data format for exchange	PC	Future steps	Nov 1, '23 - Mar 1, '24	-		
4.2.7: Start of data acquisition from the greenh...	PC	Future steps	Apr 1, '24 - Jan 31, '25	-		
4.2.8: Initial simulation with synthetic datasets	PC	Future steps	Nov 1, '23 - Aug 1, '24	-		
4.2.12: Final results and definition of optimal m...	PC	Future steps	Jun 1, '25 - Jan 31, '26	-		
+ Add task			Feb 1, '23 - Jan 31, '26		0 hours sum	0 hours sum

+ Add new group



4.4 Modelling of the PV modules performance

Modelling of the PV modules performance

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort Spent
<input type="checkbox"/>	> 4.3.1: State of the art PV bi...		Working on it	Feb 1 - Apr 30	-		
<input type="checkbox"/>	4.3.2: Identification and testin...		Future steps	Apr 1 - Nov 30	-		
<input type="checkbox"/>	4.3.3: Definition of the variabl...		Future steps	Sep 1 - Nov 30	-		
<input type="checkbox"/>	4.3.4: Mapping of other availa...		Future steps	Sep 1, '23 - Apr 30, '24	-		
<input type="checkbox"/>	4.3.5: Definition of data forma...		Future steps	Nov 1, '23 - Mar 31, '24	-		
<input type="checkbox"/>	4.3.5: Definition of data forma...		Future steps	Sep 30, '24 - Oct 31, '25	-		
<input type="checkbox"/>	4.3.7: Model validation and tu...		Future steps	Mar 1, '25 - Sep 30, '25	-		
<input type="checkbox"/>	4.3.8: Final results and definiti...		Future steps	Jun 1, '25 - Jan 31, '26	-		
<input type="checkbox"/>	+ Add task						
				Feb 1, '23 - Jan 31, '26		0 hours sum	0 hours sum

4.5 Water efficiency modelling

Modelling of the PV modules performance

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort Spent
<input type="checkbox"/>	> 4.3.1: State of the art PV bi...		Working on it	Feb 1 - Apr 30	-		
<input type="checkbox"/>	4.3.2: Identification and testin...		Future steps	Apr 1 - Nov 30	-		
<input type="checkbox"/>	4.3.3: Definition of the variabl...		Future steps	Sep 1 - Nov 30	-		
<input type="checkbox"/>	4.3.4: Mapping of other availa...		Future steps	Sep 1, '23 - Apr 30, '24	-		
<input type="checkbox"/>	4.3.5: Definition of data forma...		Future steps	Nov 1, '23 - Mar 31, '24	-		
<input type="checkbox"/>	4.3.5: Definition of data forma...		Future steps	Sep 30, '24 - Oct 31, '25	-		
<input type="checkbox"/>	4.3.7: Model validation and tu...		Future steps	Mar 1, '25 - Sep 30, '25	-		
<input type="checkbox"/>	4.3.8: Final results and definiti...		Future steps	Jun 1, '25 - Jan 31, '26	-		
<input type="checkbox"/>	+ Add task						
				Feb 1, '23 - Jan 31, '26		0 hours sum	0 hours sum

4.6 Digital Twins

Task 4.6 Create a Digital Twin model of the system

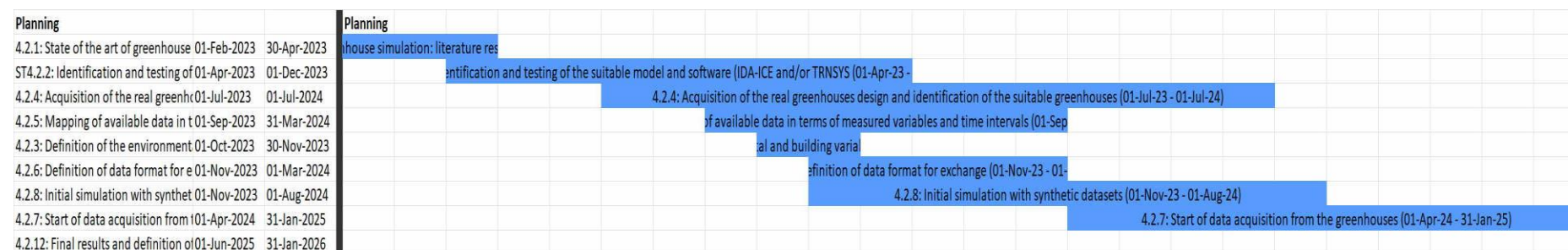
<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Planned Effort	Effort
<input type="checkbox"/>	> 4.5.1: State of the art of energy, ...		Working on it	Feb 1 - May 31	-		
<input type="checkbox"/>	4.5.2: Set-up and testing of synthe...		Future steps	Apr 1 - Nov 30	-		
<input type="checkbox"/>	4.5.3: Set-up and testing of synthe...		Future steps	Oct 1, '23 - May 31, '24	-		
<input type="checkbox"/>	> 4.5.4: Test of ML model for greenh...		Future steps	Jan 1, '24 - Jul 31, '24	-		
<input type="checkbox"/>	Deliverable- Calibration of model		Future steps	Aug 1, '24	-		
<input type="checkbox"/>	4.5.5: Test of ML model for PV bifa...		Future steps	Aug 1, '24 - Feb 1, '25	-		
<input type="checkbox"/>	4.5.5: Test of ML model for PV bifa...		Future steps	Mar 1, '25 - Sep 1, '25	-		
<input type="checkbox"/>	4.5.5: Test of ML model for PV bifa...		Future steps	Aug 1, '24 - Feb 1, '25	-		
<input type="checkbox"/>	4.5.8: Implementation of Digital Tw...		Future steps	Feb 1, '25 - Jan 31, '26	-		
<input type="checkbox"/>	Deliverable- 4.5.9: Testing and Vali...		Future steps	Jan 31, '26	-		
<input type="checkbox"/>	+ Add task						
				Feb 1, '23 - Jan 31, '26		0 hours sum	0



4.2 Dynamic modelling of the greenhouse microclimate and energy demand



4.3 CFD modelling of the greenhouse microclimate



4.4 Modelling of the PV modules performance

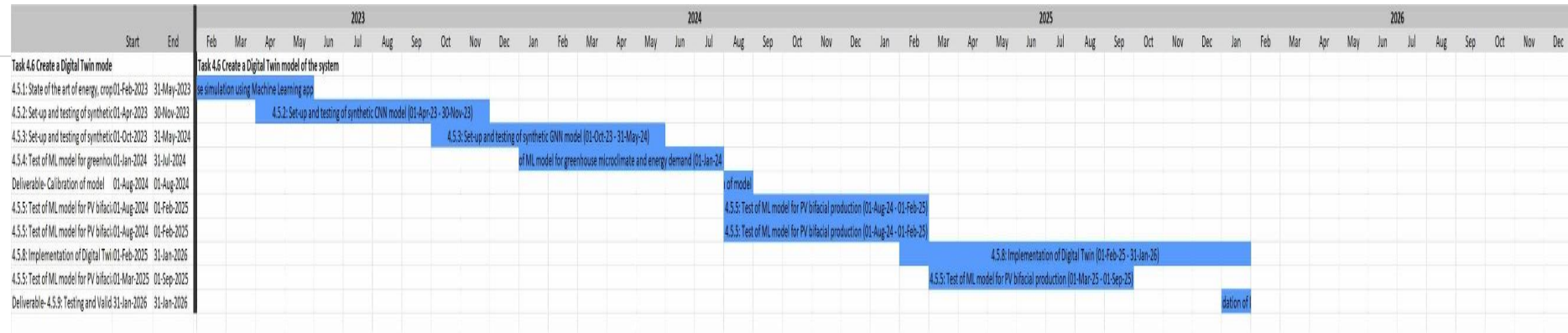
	Start	End	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Modelling of the PV modules performance			Modelling of the PV modules performance																																			
4.3.1: State of the art PV bifacial model	01-Feb-2023	30-Apr-2023	4.3.1: State of the art PV bifacial model																																			
4.3.2: Identification and testing of the suitable model and software (PVLib)	01-Apr-23	30-Nov-2023	4.3.2: Identification and testing of the suitable model and software (PVLib)																																			
4.3.3: Definition of the variables needed	01-Sep-2023	30-Nov-2023	4.3.3: Definition of the variables needed																																			
4.3.4: Mapping of other available data in terms of measured variables and time intervals	01-Sep-2023	30-Apr-2024	4.3.4: Mapping of other available data in terms of measured variables and time intervals																																			
4.3.5: Definition of data format for exchange	01-Nov-2023	31-Mar-2024	4.3.5: Definition of data format for exchange																																			
4.3.6: Definition of data format for exchange	01-Nov-2023	31-Mar-2024	4.3.6: Definition of data format for exchange																																			
4.3.7: Model validation and tuning	01-Mar-2025	30-Sep-2025	4.3.7: Model validation and tuning																																			
4.3.8: Final results and definition of optimal experimental and model setup	01-Jun-2025	31-Jan-2026	4.3.8: Final results and definition of optimal experimental and model setup																																			

4.5 Water efficiency modelling

	Start	End	2023								2024								2025								2026											
			Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Task 4.4 Water efficiency modelling			Task 4.4 Water efficiency modelling.																																			
4.4.1: State of the art of greenhouse simulation	01-Feb-2023	30-Apr-2023	house simulation literature review																																			
4.4.2: Identification and testing of the suitable model and software (DA-ICE and/or TRNSYS2)	01-May-2023	30-Nov-2023	Validation testing of the suitable model and software																																			
4.4.3: Acquisition of the real greenhouse design and identification of the suitable greenhouses	01-Jun-2023	31-Aug-2024	4.4.3: Acquisition of the real greenhouses design and identification of the suitable greenhouses (01-Jun-23 - 31-Aug-24)																																			
4.4.4: Definition of the environment (weather data, boundary conditions, etc.)	01-Sep-2023	30-Nov-2023	4.4.4: Definition of the environment (weather data, boundary conditions, etc.)																																			
4.4.5: Mapping of available data in terms of measured variables and time intervals	01-Oct-2023	30-Apr-2024	4.4.5: Mapping of available data in terms of measured variables and time intervals (01-Oct-23 - 30-Apr-24)																																			
4.4.6: Initial simulation with synthetic datasets	01-Nov-2023	31-Aug-2024	4.4.6: Initial simulation with synthetic datasets (01-Nov-23 - 31-Aug-24)																																			
4.4.7: Definition of data format for exchange	01-Nov-2023	31-Mar-2024	4.4.7: Definition of data format for exchange (01-Nov-23 - 31-Mar-24)																																			
4.4.8: Start of data acquisition from the greenhouses	01-Apr-2024	31-Jan-2026	4.4.8: Start of data acquisition from the greenhouses (01-Apr-24 - 31-Jan-26)																																			
4.4.9: Definition of model for energetic plant interactions	01-Aug-24	31-Jan-2025	4.4.9: Definition of model for energetic plant interactions (01-Aug-24 - 31-Jan-25)																																			
4.4.10: Model analysis with real data	01-Sep-2024	31-Aug-2025	4.4.10: Model analysis with real data (01-Sep-24 - 31-Aug-25)																																			
4.4.11: Model validation and tuning	01-Mar-2025	01-Nov-2025	4.4.11: Model validation and tuning (01-Mar-25 - 01-Nov-25)																																			



4.6 Digital Twins



WP 5 Validation

Lead Partner Alzahrawy

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The main vulnerability in this work package is its dependence on data d=generated in WP 2, 3, and 4

5.1. Define a common manual of procedures and methodologies to evaluate the system

✓ 5.1. Define a common manual of procedures and methodologies ...

Task	Owner	Status	Timeline	Dependent On	Comple
Define a common manual to evaluate the system	ME	Future steps	Feb 1, '24 - Oct 1, '24	-	Jan
Subitem	Owner	Status	Due Date		
Electrical evaluation met...			Apr 1, 2024		
Crop evaluation methodo...			Apr 1, 2024		
Microclimate evaluation ...	PC		Apr 1, 2024		
+ Add subitem					
Techno-economic evaluation	ME	Future steps	Oct 1, '24 - Jan 1, '25	-	
Collect data analysis of each partner	ME	Future steps	Sep 1 - Nov 30	-	
Deliverable- Procedures and methodologies to evaluate the system	ME	Future steps	Feb 1, '25	-	Fet
+ Add task					
			Sep 1, '23 - Feb 1, '25		

+ Add new group

5.2. Evaluate the system's feasibility, reliability, replicability, robustness, and ease of maintenance from an end user perspective

✓ 5.2. Evaluate the system's feasibility, reliability, replicability, robustness, an...

Task	Owner	Status	Timeline	Completion Date
Draft Questionnaire	ME	Future steps	Oct 1, '25 - Oct 31, '25	Dec 1, 2025
Receive questionnaire answers	ME	Future steps	Feb 1, '25 - Apr 30, '25	May 1, 2025
Analyze questionnaire results	ME	Future steps	May 1, '25 - Aug 1, '25	
+ Add task				
			Feb 1, '25 - Oct 31, '25	



5.3 Evaluate the system using the following KPIs: PV ground coverage ratio, electric yields, crop yields and water consumption

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▼ Planning

Task	Owner	Status	Timeline	Dependent On	Completion Date
Collect Input from all partners 5		Future steps	Feb 1, '25 - Apr 1, '25	-	
Subitem	Owner	Status	Due Date		
• Assessment of data aris...	PC				
• Assessment of data aris...					
• Assessment of CO2 enr...					
• Assessment of data aris...					
• Assessment of PV elect...					
+ Add subitem					
System Evaluations	ME		Feb 1, '25 - Feb 1, '26	-	
Deliverable - system Evaluations	ME		Feb 1, '26	-	
+ Add task					
			Feb 1, '25 - Feb 1, '26		

5.4 Develop technical protocols that will allow introduction of the system (PV tracker and CO2 enrichment technologies) in low, medium and medium high insolation environments

▼ Planning

Task	Owner	Status	Timeline	Dependent On	Completion Date	Co
> Hire technical writers 1	ME	Future steps	Oct 1, '25 - Oct 31, '25	-	Jan 18, 2022	
Deliverable-- protocols	ME	Future steps	Oct 31, '25	Hire technical w...	Feb 1, 2022	
+ Add task						
			Oct 1, '25 - Oct 31, '25			

+ Add new group



5.1. Define a common manual of procedures and methodologies to evaluate the system

	Start	End	2023												2024												2025											
			Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
5.1. Define a common manual of pr			5.1. Define a common manual of procedures and methodologies to evaluate the system																																			
Collect data analysis of each partner	01-Sep-2023	30-Nov-2023																																				
Define a common manual to evaluat	01-Feb-2024	01-Oct-2024																																				
Electrical evaluation methodology	01-Apr-2024	01-Apr-2024																																				
Crop evaluation methodology	01-Apr-2024	01-Apr-2024																																				
Microclimate evaluation methodolo	01-Apr-2024	01-Apr-2024																																				
Techno-economic evaluation	01-Oct-2024	01-Jan-2025																																				
Deliverable- Procedures and methoc	01-Feb-2025	01-Feb-2025																																				

5.2. Evaluate the system's feasibility, reliability, replicability, robustness, and ease of maintenance from an end user perspective

		2023												2024												2025												
	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
5.2. Evaluate the system's feasibility			5.2. Evaluate the system's feasibility, reliability, replicability, robustness, and ease of maintenance from an end user perspective																																			
Receive questionnaire answers	01-Feb-2025	30-Apr-2025																																				
Analyze questionnaire results	01-May-2025	01-Aug-2025																																				
Draft Questionnaire	01-Oct-2025	31-Oct-2025																																				

5.3 Evaluate the system using the following KPIs: PV ground coverage ratio, electric yields, crop yields and water consumption

Planning	2023												2024												2025																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Collect input from all partners	01-Feb-2025	01-Apr-2025																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

5.4 Develop technical protocols that will allow introduction of the system (PV tracker and CO2 enrichment technologies) in low, medium and medium high insolation environments

	Start	End	2023												2024												2025											
			Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Planning			Planning																																			
Hire technical writers	01-Oct-2025	31-Oct-2025																																				
Deliverable- protocols	31-Oct-2025	31-Oct-2025																																				

WP6: Sustainability (Environmental, economic and social)

This work package has two sections, the social aspect that deal with farmers and the second in environmental assessment. The challenge in the first section is mainly organizational. In the second in its dependency on data negotiated by experimental partners

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6.1 Researcher training

▼ Researcher training

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Completion Status
<input type="checkbox"/>	Researcher training	AV		Mar 23 - Jul 1	-	Jul 1, 2022	
<input type="checkbox"/>	UTOV: definition of trainers' p...	AV	Done	Feb 1 - Mar 1	-	Mar 1	Done On Time ✓
<input type="checkbox"/>	In each country: 2 trainers are...	AV	Done	Mar 1 - Apr 30	-	Apr 30	Done On Time ✓
<input type="checkbox"/>	Design of the training progra...	AV	Working on it	Mar 1 - Apr 30	-	Apr 30	
<input type="checkbox"/>	Organisation/logistics of the t...	AV	Future steps	Apr 1 - 30	-	Apr 30	
<input type="checkbox"/>	Training session: (onsite + hy...	AV	Future steps	May 1 - 31	-	May 31	
<input type="checkbox"/>	Follow-up to the training sess...	AV	Future steps	Jun 1 - Jul 31	-	Jul 31	
<input type="checkbox"/>	Follow-up to the training sess...	AV	Future steps	Jun 1 - Jul 31	-	Jul 31	
<input type="checkbox"/>	+ Add task						
				Feb 1 - Jul 31			0 sum

+ Add new group

6.2 Analysis of farmers' mental and social representations of technology and

▼ Analysis of the mental and social representations of farmers in ge...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	> 10 non-standard qualitative interviews 1			Aug 1, '23 - Oct 1, '25	-	Jan 18, 2022
<input type="checkbox"/>	3 focus groups in each country			Oct 2, '25 - Dec 3, '27	10 non-standar...	Jan 20, 2022
<input type="checkbox"/>	+ Add task					
				Aug 1, '23 - Dec 3, '27		

▼ Selection of a group of 10 farmers for each partner country for:

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	Selection of a group of 10 farmers for eac...			Aug 1, '23 - Oct 1, '25	-	
<input type="checkbox"/>	+ Add task					
				Aug 1, '23 - Oct 1, '25		

▼ Sentiment analysis on a body of text identified in the groups present on far...

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On
<input type="checkbox"/>	Sentiment analysis on a body of text ident...			Aug 1, '23 - Oct 1, '25	-
<input type="checkbox"/>	+ Add task				
				Aug 1, '23 - Oct 1, '25	



6.3 Participation

▼ Planning

<input type="checkbox"/>	Task	Owner	Status	Timeline	Duration	Dependent On	Plai
<input type="checkbox"/>	> Participation			Jul 1, '23 - Nov 1, '25	855 days	-	
<input type="checkbox"/>	+ Add task			Jul 1, '23 - Nov 1, '25	855 days		

+ Add new group

6.4 Discussion, communication and dissemination of results

▼ Planning

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date	Comp
<input type="checkbox"/>	> Discussion, communicatio...			Jun 1, '23 - Oct 1, '25	-	Jan 12, 2022	
<input type="checkbox"/>	Deliverable- Farmer Dialogue ...			Oct 1, '25	-	Feb 9, 2022	
<input type="checkbox"/>	+ Add task			Jun 1, '23 - Oct 1, '25			

+ Add new group

Environmental analysis

Task 6.6 Analysis of land impact from PV system

▼ Task 6.6 Analysis of land impact from PV system

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	Comparing an agri-voltaic greenhouse to a regular greenhouse	LA	Working on it	-	-	
<input type="checkbox"/>	Land needed to reach renewable goals	LA	Working on it	Feb 1 - Mar 31	-	Mar 31
<input type="checkbox"/>	Available farmland analysis	LA	Working on it	Apr 1 - May 31	-	May 31
<input type="checkbox"/>	Share of farmland available for agrivoltaics	LA	Working on it	Apr 1 - May 31	-	May 31
<input type="checkbox"/>	share of energy goals achievable with AV	LA	Working on it	Jun 1 - Jul 31	-	Jul 31
<input type="checkbox"/>	Greenhouse AV compared to ground PV analysis	LA		Jun 1 - Jul 31	-	Jul 31
<input type="checkbox"/>	+ Add task			Feb 1 - Jul 31		

Task 6.7 Resource Efficiency Analysis

... ▼ Task 6.7 Resource Efficiency Analysis 4 Tasks / 4 Subitems

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	> 6.7.1. AV versus ordinary greenhouse comparison. 4	LA	Future steps	May 1, '23 - Feb 1, '26	-	
<input type="checkbox"/>	6.7.2 AV greenhouse vs AV plantation			-	-	
<input type="checkbox"/>	Construction materials analysis	LA	Working on it	Jun 1, '23 - Jul 31, '24	-	Jul 31, 2024
<input type="checkbox"/>	Building and maintenance labor comparison	LA		Jun 1, '23 - Jul 31, '24	-	Jul 31, 2024
<input type="checkbox"/>	+ Add task			May 1, '23 - Feb 1, '26		



Task 6.8 Circularity potential

Task 6.8 Circularity potential

<input type="checkbox"/>	Task		Owner	Status	Timeline	Dependent On	Completion Date
<input type="checkbox"/>	3.1. Waste reduction		LA	Future steps	Jun 1, '23 - Jun 30, '24	-	Jul 31, 2024
<input type="checkbox"/>	3.2 solar energy impact		LA	Future steps	-	-	
<input type="checkbox"/>	+ Add task						
					Jun 1, '23 - Jun 30, '24		

+ Add new group



6.1 Researcher training

	Start	End	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023	Jun-2023	Jul-2023																				
			29	5	12	19	26	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30
Researcher training			Researcher training																										
UTOV: definition of trainers' profile	01-Feb-2023	01-Mar-2023	Definition of trainers' profile + selection criteria (01-Feb-23)																										
In each country: 2 trainers are identified	01-Mar-2023	30-Apr-2023	In each country: 2 trainers are identified (01-Mar-23 - 30-Apr-23)																										
Design of the training programme	01-Mar-2023	30-Apr-2023	Design of the training programme (01-Mar-23 - 30-Apr-23)																										
Researcher training	23-Mar-2023	01-Jul-2023	Researcher training (23-Mar-23 - 01-Jul-23)																										
Organisation/logistics of the training	01-Apr-2023	30-Apr-2023	/logistics of the training session(s) in Rome (01-Apr-23)																										
Training session: (onsite + hybrid) Rome Spring School	01-May-2023	31-May-2023	on: (onsite + hybrid) Rome Spring School (01-May-23)																										
Follow-up to the training session: co	01-Jun-2023	31-Jul-2023	Follow-up to the training session: contextualisation of the participatory methodologies (01-Jun-23 - 31-Jul-23)																										
Follow-up to the training session: su	01-Jun-2023	31-Jul-2023	Follow-up to the training session: support to participants (01-Jun-23 - 31-Jul-23)																										

6.2 Analysis of farmers' mental and social representations of technology

	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Analysis of the mental and social representations of farmers in general on technologies applied to agriculture and specifically on photovoltaics through for each partner country:			Analysis of the mental and social representations of farmers in general on technologies applied to agriculture and specifically on photovoltaics through for each partner country:																																	
10 non-standard qualitative interviews	01-Aug-2023	01-Oct-2023	10 non-standard qualitative interviews (01-Aug-23 - 01-Oct-23)																																	
3 focus groups in each country	02-Oct-2023	03-Dec-2023	3 focus groups in each country (02-Oct-23 - 03-Dec-23)																																	
Selection of a group of 10 farmers for	01-Aug-2023	01-Oct-2023	Selection of a group of 10 farmers for each partner country for:																																	
Sentiment analysis on a body of text	01-Aug-2023	01-Oct-2023	Sentiment analysis on a body of text identified in the groups present on farmers' social media (Twitter and Facebook) and any online thematic forums on photovoltaics in agriculture																																	
Sentiment analysis on a body of text	01-Aug-2023	01-Oct-2023	Sentiment analysis on a body of text identified in the groups present on farmers' social media (Twitter and Facebook) and any online thematic forums on photovoltaics in agriculture (01-Aug-23 - 01-Oct-23)																																	

6.3 Participation

	Start	End	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Planning			Planning																																	
Participation	01-Jul-2023	01-Nov-2023	Participation (01-Jul-23 - 01-Nov-23)																																	

6.4 Discussion, communication and dissemination of results

Discussion, communication and dissemination of results (01-Jun-23 - 01-Oct-23)																																			
--------------------------------------------------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



6.5 Evaluation of change in mental and social representations with Environmental tasks

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WP 7 Innovation Management

WP leader Interteam

The main challenge in this work package is in adapting the business plan to different regulatory and business conditions in different locations

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7.1: Innovation Management

7.1: Innovation Management

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	develop a project-specific inn...		Future steps	Feb 1, '24 - Jan 31, '26	-	
<input type="checkbox"/>	+ Add task			Feb 1, '24 - Jan 31, '26		

7.2 Business case analysis

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Desk research of business case		Future steps	Feb 1, '24 - Jun 1, '24	-	
<input type="checkbox"/>	Market players interviews		Future steps	Jun 1, '24 - Nov 1, '24	-	
<input type="checkbox"/>	Business case deliverable		Future steps	Jan 31, '26	-	
<input type="checkbox"/>	+ Add task			Feb 1, '24 - Jan 31, '26		

7.3: Innovative business models

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Innovative business models		Future steps	Sep 1, '24 - Aug 31, '25	-	
<input type="checkbox"/>	Stakeholder workshop		Future steps	Oct 1, '24 - Nov 30, '24	-	
<input type="checkbox"/>	Regulatory deliverable		Future steps	Dec 1, '25 - Jan 31, '26	-	
<input type="checkbox"/>	+ Add task			Sep 1, '24 - Jan 31, '26		

7.4 Exploitation and business plans

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Exploitation and business plans		Future steps	Mar 1, '25 - Jan 31, '26	-	
<input type="checkbox"/>	+ Add task			Mar 1, '25 - Jan 31, '26		

7.5: Legal Issues Analysis

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Legislation review		Future steps	Jan 31, '26 - Feb 27, '26	-	
<input type="checkbox"/>	+ Add task			Jan 31, '26 - Feb 27, '26		

7.6: Intellectual Property Management

<input type="checkbox"/>	Task	Owner	Status	Timeline	Dependent On	+
<input type="checkbox"/>	Intellectual Property Manage...		Future steps	Feb 1, '23 - Jan 31, '26	-	
<input type="checkbox"/>	+ Add task			Feb 1, '23 - Jan 31, '26		



WP 7 Innovation Management

	Start	End	2023												2024												2025												2026											
			Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
7.1 Innovation Management			7.1 Innovation Management																																															
develop a project specific innovation	01-Feb-2024	31-Jan-2026	develop a project specific innovation approach and plan (01-Feb-24 - 31-Jan-26)																																															
7.2 Business case analysis			7.2 Business case analysis																																															
Desk research of business case	01-Feb-2024	01-Jun-2024	desk research of business case (01-Feb-24 - 01-Jun-24)																																															
Market players interviews	01-Jun-2024	01-Nov-2024	Market players interviews (01-Jun-24 - 01-Nov-24)																																															
Business case deliverable	31-Jan-2025	31-Jan-2026	produce (31)																																															
7.3 Innovative business models			7.3 Innovative business models																																															
Innovative business models	01-Sep-2024	31-Aug-2025	innovative business models (01-Sep-24 - 31-Aug-25)																																															
Stakeholder workshop	01-Oct-2024	30-Nov-2024	workshop (01-Oct-24)																																															
Regulatory deliverable	01-Dec-2025	31-Jan-2026	deliverable (01-Dec-25)																																															
7.4 Exploitation and business plans			7.4 Exploitation and business plans																																															
Exploitation and business plans	01-Mar-2025	31-Jan-2026	Exploitation and business plans (01-Mar-25 - 31-Jan-26)																																															
7.5 Legal Issues Analysis			7.5 Legal Issues Analysis																																															
Legislation review	31-Jan-2026	27-Feb-2026	review (31-Jan-26)																																															
7.6 Intellectual Property Management			7.6 Intellectual Property Management																																															
Intellectual Property Management	01-Feb-2024	31-Jan-2026	Intellectual Property Management (01-Feb-24 - 31-Jan-26)																																															


WP8: Dissemination & Visibility

WP leader Interteam





Judging from the good start made in this WP there are not many challenges in ut\

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8.1 Design and development of project identity & website

Task	Owner	Status	Timeline	Dependent On	Planned
Design and development of project identity & website		Done	Feb 1 - Jul 31	-	
+ Add task					


8.2 The development of a comprehensive Outreach, Communication and ...

Task	Owner	Status	Timeline	Dependent On	Planned
The development of a comprehensive Outreach, Communicati...		Working on it	Feb 1, '23 - Feb 1, '26	-	
Deliverable No 1		Future steps	Aug 1	-	
Deliverable No 2		Future steps	Oct 31, '24	-	
Deliverable No 3		Future steps	Jan 31, '26	-	
+ Add task					


8.3 Graphics and communications materials toolbox

Task	Owner	Status	Timeline	Dependent On	Planned
Graphics and communications materials toolbox		Done	Feb 1, '23 - Feb 1, '26	-	
Milestone - Execution			Feb 2, '26	The developme...	
+ Add task					


8.4 Communication plan for promoting agrivoltaics

Task	Owner	Status	Timeline	Dependent On	Planned
Communication plan for promoting agrivoltaics		Working on it	Feb 1, '23 - Feb 1, '26	-	
+ Add task					

8.5 Networking & Clustering

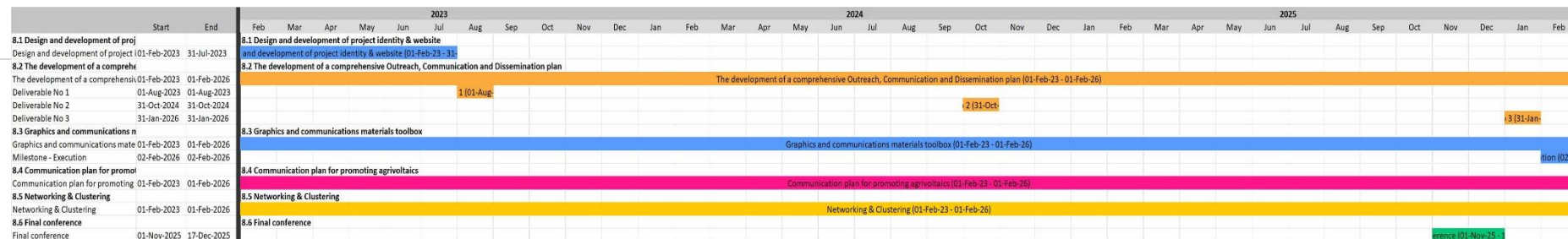
Task	Owner	Status	Timeline	Dependent On	Planned
Networking & Clustering		Future steps	Feb 1, '23 - Feb 1, '26	-	
+ Add task					

8.6 Final conference

Task	Owner	Status	Timeline	Dependent On	Planned
Final conference		Future steps	Nov 1, '25 - Dec 17, '25	-	
+ Add task					



WP8: Dissemination & Visibility



WP9: Project Management

WP leader Alzahrawy

The main challenge in this work package in maintaining consistently proficient management throughout the entire three years

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9.1 Consortium operating procedures definition & quality assurance

<input type="checkbox"/>	Task	Owner	Status	Timeline	Completion Date	Dependent On
<input type="checkbox"/>	Deliverable-Consortium operati...			Apr 30		-
<input type="checkbox"/>	+ Add task					

Project Management Plan

<input type="checkbox"/>	Task	Owner	Status	Timeline	Completion Date	Dependent On
<input type="checkbox"/>	Detailed Project Management PL...	ME	Done	Feb 1 - Mar 31		Appoint author ...
<input type="checkbox"/>	Appoint author and reviewer to ...	ME	Done	Feb 12 - 13	Feb 12	-
<input type="checkbox"/>	Deliverable- PM Plan	ME	Done	Mar 31		-
<input type="checkbox"/>	+ Add task					

9.2 Project coordination and day-to-day management

<input type="checkbox"/>	Task	Owner	Status	Timeline	Completion Date	Dependent On
<input type="checkbox"/>	+ Add task					

9.3 Consortium meetings

<input type="checkbox"/>	Task	Owner	Status	Timeline	Completion Date	Dependent On
<input type="checkbox"/>	+ Add task					

9.4 Data management

<input type="checkbox"/>	Task	Owner	Status	Timeline	Completion Date	Dependent On
<input type="checkbox"/>	Deliverable-Data management P...			Apr 30	Jan 18, 2022	-
<input type="checkbox"/>	+ Add task					

9.5 Project risk management

<input type="checkbox"/>	Task	Owner	Status	Timeline	Completion Date	Dependent On
<input type="checkbox"/>	Project risk management			Feb 1, '23 - Jan 31, '26	Jan 18, 2022	-
<input type="checkbox"/>	+ Add task					



WP9: Project Management

