



# D1.2 – Project Management and Quality Plan II

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## **Deliverable Information Sheet**

## **History of changes**

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0.1	20/05/2024	First draft, establishing document structure	A. Vallan, D. Righi (FPM)
0.2	27/05/2024	First version, incorporating input from all participants	N. Aste, C. Del Pero, (POLIMI) A. Vallan, D. Righi (FPM)
0.3	29/05/2024	Quality review	F. Leonforte, M. Buzzetti (POLIMI)
1.0	31/05/2024	Final version addressing all further comments	A. Vallan, D. Righi (FPM)



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## **1. Executive summary**

The present document builds upon the preliminary iteration of the Project Management and Quality Plan (D1.1); it follows in continuity with many of the supporting procedures and the project coordination aspects already outlined in the first version. It further expands some aspects related to Project Governance, to project monitoring and to risk management.

After providing a general overview of the project, it illustrates the quality assurance procedures applied to different project's aspects.

The document also includes the project management manual and the description of the procedures for the risk management.

## 2. Project Overview and Workflow

### 2.1. Project Overview and Objectives

RE-SKIN project is focused on developing an integrated and multifunctional energy retrofit system for existing buildings, divided into two main components: the roof and the façade, which work in conjunction with the building's HVAC system. The roof features a hybrid photovoltaic-thermal system that generates electricity and heat while providing thermal and acoustic insulation for the underlying slab. The electricity generated by retrofitted photovoltaic modules powers the building's loads and interacts with the grid and EV charging stations. The heat produced is utilized by a heat pump for heating and domestic hot water. Solar modules, replacing traditional roofing materials like tiles and sheets, form the outer layer of the roof and can be treated to match various aesthetic and architectural styles.

The façade consists of thermal cladding with self-supporting panels and bio-based insulation, designed for quick assembly without scaffolding. It houses the wiring for new installations and earthquake sensors. The project also includes retrofit techniques and components for existing windows. Both the roof and façade are made from more durable and waterproof materials than traditional options, ensuring resistance to weather and extreme climate conditions.

The HVAC system features a solar-assisted DC air-water heat pump connected to smart fan-coils, capable of providing both heating and cooling and designed to integrate with the building's existing heating infrastructure. The entire system is designed with a circular economy approach, utilizing mostly recycled, bio-based, repurposed, and refurbished materials. It is supported by a cloud-based lifecycle DSS and energy management tool to optimize energy performance and minimize environmental impact.

This system can be implemented across Europe, enhancing renewable energy use and improving the energy performance of buildings throughout the year.

RE-SKIN critical success factors are strictly linked to successful project management objectives. Its accomplishments hinge on a well-coordinated approach that aligns with the program's goals, involves a strong consortium, manages resources effectively, and ensures the timely delivery of high-quality outputs. Robust project management practices, combined with clear objectives and proactive stakeholder engagement, are crucial to achieving impactful results that address societal challenges and drive innovation.

### 2.2. Project Workplan

The project's work plan has encountered no discontinuities and continues to be structured in accordance with what was established in the DoA and as illustrated in the first version of this document (D1.1). The project is divided into **10 work packages spanning 42 months**, and this structure ensures an integrated optimization of the entire system, allowing the project to achieve its ambitious objectives.

The workplan involves both autonomous activities within each work package (WP) and extensive coordination and interaction among the different working groups, reflecting the project's interdisciplinary nature.

Specifically, four cross-WPs ensure project and quality management (WP1), context monitoring and project resilience (WP2), and the integrated design of the entire system following a circular economy approach (WP7). Additionally, three WPs will concentrate on defining the main features of the components, manufacturing pilot units, and testing them under operating conditions (WP3, WP5, WP6). In these work packages, integration-oriented optimization will be conducted. This process involves iteratively adapting each component, identifying critical issues and optimization points, detailing design changes, verifying component conformity to final technical specifications, assessing technical-economic feasibility, and finalizing the construction design along with detailed manufacturing and assembly specifications.

WP8 will focus on actions needed to exploit project results in the market, while WP9 will conduct on-field demonstration activities. Case-study interventions will be deferred to allow for on-field verification, tailoring, and improvement of each component before further applications. Lastly, WP10 will handle communication and dissemination activities.

## **3. Project Organization Structure**

## **3.1. Project Governance**

The organizational structure guarantees the integration of skills and resources to meet project objectives in time and quality, and maximize the international scientific visibility, the exploitation of results and public awareness of the performed actions.

The management structure of the project aims at assuring full participation of all partners to the project and the smooth delivery all the activities foreseen in the work plan.

The governance structure is conceived in a standardized simple way to guarantee a smooth coordination of the activities, avoiding excessive administrative burden, but aiming at identifying key roles and figures which can ensure prompt action in the implementation phases and high qualitative management and outputs.

The following tables provide detailed descriptions of the identified roles along with their respective competences and responsibilities:

Project Coordinator	Financial supervision.
•	<ul> <li>Progress report preparation and submission.</li> </ul>
	• Formal revision and submission of official documents.
	Final approval of project's deliverables.
	Organization/Supervision of project's meeting.
	Liaison with Project Governing Bodies.
POLIMI, Prof. Niccolò A	ste
Supported by a Scientif	ic Director, Prof. Claudio del Pero, and by a dedicated project officer from
Fondazione Politecnico	(POLIMI's AE) for day-to-day management

	<ul> <li>Responsible for major decisions affecting project's</li> </ul>
General Assembly	implementation.
	Monitoring and reviewing the overall technical, management and
	financial progress of the project.
	• Ensuring that milestones are met, and deliverables are completed.
	• Ensuring the quality of the data coming from the WPs, the reports
	and the deliverables.
	• Monitoring and ensuring efficient communication and co-
	ordination between partners, WPs and tasks.

Meetings are held periodically, twice per year. One representative per beneficiary, respectively:\* 1) POLIMI: Niccolò Aste 11) **RINOVA:** Toralf Nitsch 2) ENTPE: Mohamed El Mankibi 12) INDRES: Pablo Outon 3) ENELX: Silvia Arcieri 13) USE: Gaetan Holderbeke 4) PSC: Andres Barrado 14) SOLAR: Marco Ghirardello 5) HELIO: Minsoo Kim 15) DTI: Stine Lombro Bertelsen 16) CDM: Fabio Minchio 6) ZH: Alessandro Miglioli 7) REV: Stuard Reigeluth 17) BURGAS: Kamer Ahmedov 8) GAR: Amaya Saráchaga 18) VIP: Daniel Dominguez 9) <u>HE:</u> Dara Turnbull 19) STI: Mario Maistrello 10) CTIC: Fidél Diez 20) VILO: Julien Holgard

\*Representatives of the General Assembly are revised annually, but they might undergo variations due to organization's changes

Executive Board:	<ul> <li>Monitoring the implementation of all project tasks.</li> </ul>
	<ul> <li>Day-by-day management of technical WPs.</li> </ul>
	• Technical actions to ensure WP goals on time and with planned
	resources.
	Reports periodically to the General Assembly.
Chaired by the Coordin	ator - POLIMI, Prof. Niccolò Aste – it is made up of:
- Scientific Director (S	upervision of scientific development and quality management):
POLIMI, C. Del Pero.	
- Integration Director	(Supervision on the integration of different components and on the toolkit
realization):	
ZH, A. Miglioli.	
- Pilot Manager (Supe	rvision of pilot activities and validation activities):
ENELX, F. Cucca.	
- Impact Director (Pro	ject uptake and impact):
POLIMI, D. Chiaroni.	

- Communication and Dissemination Director (Coordination of all activities for enhancing project visibility):

REV, S. Verma.

- Gender Equality Supervisor

POLIMI, C. Rossi.

Work Package Leaders:	<ul> <li>Coordination and timeframe and b</li> <li>Proposition of or</li> <li>Deliverables prep</li> <li>Risk monitoring.</li> <li>Liaison with the</li> </ul>	Coordination and implementation of each WP within the foreseen timeframe and budget. Proposition of orientation of work to reach project objectives. Deliverables preparation supervision. Risk monitoring. Liaison with the different Directors.	
One representative per	WP, respectively:		
1) <u>WP1:</u> POLIMI, N	iccolò Aste	11) <u>WP6:</u> HELIO, M. Kim	
2) <u>WP2:</u> ENTPE, M	ohamed El Mankibi	12) <u>WP7:</u> ENELX, S. Arcieri	
3) <u>WP3:</u> DTI, S. Lor	nbro Bertelse	13) <u>WP8</u> : ZH, A. Miglioli	
4) <u>WP4:</u> POLIMI, C	. Del Pero	14) <u>WP9:</u> ENELX, S. Arcieri	
5) <u>WP5:</u> GAR, A. Sa	iràchaga	15) <u>WP10:</u> REV, S. Verma	

Exploitation Board	•	Monitor the business trends to adapt RE-SKIN business strategy to real market needs. IP management.
Chaired by Impact Dire	ctor, F.	<u>Cucca.</u>
Composed by represen	tatives	of industrial partners.

Gender Equality	Implementation of the organizational and content-wise GEP	
Office	(Deliverable D2.4 and D2.5).	
	• Oversee that following actions are supported: women tasks and	
	roles assignment; work/life balance support; flexible job contracts	
	and zero gender pay-gap	
POLIMI, C. Rossi		
Ensures continuity wit	h action of task 2.5 on the gender and social innovation and balance	
assessment.		

## **3.2.** Decision-making process

Decision making involves a structured and collaborative process to ensure that the project meets its objectives efficiently and effectively. By adhering to a structured governance and by defining clear and transparent quality procedures and decision-making processes, RE-SKIN can effectively manage its complex and multidisciplinary team and tasks, ensuring that all partners are aligned and that the project progresses smoothly towards its objectives.

One key aspect are the mechanisms for resolving conflicts adopted at project level and which comply with the rules set out in the Consortium Agreement.

Conflicts may arise at different project levels and consequently specific solutions will be identified to solve the conflicts promptly. At Work Package level, the WP leader will set the dispute internally with a possible Executive Board support, if needed. In case not all partners share the decision, then the discussion can be taken at Executive Board level and the Project Coordinator will also be involved. All changes needed for settling a dispute must be minor to ensure that integrity and coherence among WPs are maintained.

## **4. QUALITY ASSURANCE MANAGEMENT**

### 4.1. Quality assurance procedures over communication

Project quality management aims to ensure that the current project achieves the expected results efficiently and that deliverables are accepted by relevant stakeholders. This process involves overseeing all activities necessary to maintain a high level of excellence. It encompasses quality planning and assurance, as well as quality control and continuous improvement.

A complex international project such as RE-SKIN requires precise and transparent communication between all partners for its smooth implementation. Day-by-day communication and achievements distribution will be carried out mainly by e-mail and file sharing via the project Intranet.

#### 4.1.1. Quality assurance procedures and tools for internal communication

#### ✓ Intranet

The Intranet for internal use is hosted on Dropbox. It contains all the technical information about the project, designed to support online cooperation. Partners must use the Intranet to share information, upload intermediate versions of deliverables, and all the intermediate reports/roadmaps.

The Intranet also contains a structured repository of officially released documents, together with all contractual information, templates and so on.

The intranet contains information on "Administration and Management", on "Deliverables", on "Partners Info and contacts", on "Project Progress Report", on "Visual Identity" and on "Work Packages".

#### ✓ Ms Teams

RE-SKIN Consortium uses MS Teams service for voice communications.

#### ✓ Conference Calls

Conference calls have proven effective for organising short meetings and quickly became a major tool for the management of projects, avoiding the jeopardizing effect of long email exchanges and allowing for the reduction of travel expenses.

The following general principles should be respected for calls where critical/strategic decision for the project implementation are to be taken:

• communicate in advance the date, time, expected duration, agenda and name of participants, together with all required documents.

• the meeting agenda will be distributed prior to the meeting with a clear indication of the topics to be covered during the conference call and the partners responsible for them.

• as with all other meetings, minutes must be produced by the meeting chairperson, and circulated to the other participants.

• minute of each conference call has to be recorded and stored in the Dropbox folder.

#### ✓ Meetings

Whether virtual or physical, a meeting is convened by the chairperson, who also determines the location in accordance with the foreseen attendees. For major meetings, the Coordinator will provide support and keep track of the action items. If the Coordinator is not present, it is the responsibility of the chairperson to prepare and distribute the action items.

Regular meetings should be convened with at least twenty (20) calendar days (45 days for the project General Assembly meeting) prior notice and be accompanied by an agenda proposed by the meeting convenor. The agenda will be considered accepted unless one of the partners notifies the Project Coordinator and the other partners in writing of additional points to add, at the latest two working days before the date of the meeting (14 days for the General Assembly meetings). Partners may also participate to physical meetings by teleconference, if the facilities are available, although this should be avoided as much as possible for General Assembly meetings.

At the end of every crucial meeting where decisions are taken, minutes should be produced and shared; this can help support any audit checks the Commission may carry out concerning claimed travel expenses. The format for the meeting minutes is shared in the Dropbox folder.

#### - Project General Assembly and Executive Board Meetings

The project kick-off meeting was the first plenary meeting and marked the effective launch of the project. It reinforced the sense of common goal of all partners and identified the responsibility of each one. Open technical issues were identified and debated, co-operation between work packages

was initiated. Specific thematic tables were organized to start identifying potential risks and actions to be undertaken. The project management team exposed what is expected of each in terms of results, performance and reporting. The detailed course for the whole duration of the project was confirmed and fine-tuned.

Other project plenary meetings will take place approximately every 6 months (or earlier if required). They will involve all the participants. They will be complemented and prepared by Executive Board meetings to be held in the same time frame. Additional Executive Board meetings will be convened as required. Specific intra or cross WP meetings will be organised by the work package leaders as needed for the progress of their tasks.

In addition to the planned plenary meetings, Virtual Meetings may be held as necessary. All General Assembly meetings are convened by the chairperson, who also determines the location in consultation with the Executive Board.

Any decision requiring a vote at a General Assembly and Executive Board meeting must be identified as such on the pre-meeting agenda, unless there is a unanimous agreement to vote on a decision at that meeting.

Each Consortium Body shall not deliberate and decide validly unless a majority of two-thirds (2/3) of its voting members are present or represented, including those participating by teleconference. Where decisions are to be taken unanimously, all members must be present or represented at the meeting.

Full details can be found in the Consortium Agreement.

#### - Work Package meetings

Technical meetings or conference calls can be held as necessary. A Work package Chairperson can convene meetings of the Work package whenever required, giving members at least seven (7) calendar days' notice and providing an agenda.

For major decisions, the Work package Chairperson should consult with the Executive Board for final approval.

#### ✓ Conference Calls

Conference calls have proven effective for organising short meetings and quickly became a major tool for the management of projects, avoiding the jeopardizing effect of long email exchanges and allowing for the reduction of travel expenses.

The following general principles should be respected for calls where critical/strategic decision for the project implementation are to be taken:

• in the same way for a physical meeting, the date, time, expected duration, agenda and name of participants should be communicated in advance, together with all required documents,

• the meeting agenda will be distributed prior to the meeting with a clear indication of the topics to be covered during the conference call and the partners responsible for them,

• as with all other meetings, minutes must be produced by the meeting chairperson, and circulated to the other participants.

Quality assurance procedures and tools for external communication

#### ✓ Public Website

Public information about RE-SKIN, aiming at external communication and dissemination purposes and targeted to the greater public, is available at the following URL: <u>https://reskinproject.eu/</u>

The project website will be kept updated and improved along and beyond the project lifetime, adding new content and functionality, under the responsibility of WP10.

#### ✓ E-Mail

E-Mail will be one of the major means used in RE-SKIN project to exchange information, while the main exchange of documents in electronic form over the Internet will be accomplished using the intranet.

A RE-SKIN specific mailing list has been setup to advise the partners of the availability of new information, circulate agendas of meetings and events related to the project, and notify the presence of new documents on the intranet of the project. Usage of mailing lists is strongly recommended. The usage of person-to-person private emailing should be limited, to privilege visibility within the project to all people working in the project.

It is recommended not to send e-mails with attached documents to mailing lists. It is more effective to post them on the Intranet and allow each participant to download them including a document link in the email.

#### **4.1.2.** Documents Templates

Most documents in a collaborative project are written with contributions from several partners. In order to minimise the effort for handling such documents, it is important for all participants to follow agreed standards for formats and tools to be used in document editing and exchange.

This chapter specifically deals with the procedures for the release of official documents.

Tool :	Name : Publisher :	
Word Processing	MS Word	Microsoft
Spreadsheet	MS Excel	Microsoft
Overhead slides	MS Power Point	Microsoft
Web publication	MS Webmatrix	Microsoft
File compression	WinZIP Corel	
Documents for the Intranet	MS Word / Acrobat PDF	
Intranet Cloud Folders	Dropbox "RE-SKIN Consortium"	

#### ✓ Document Versions

When a document is issued for the first time, it should be defined as a draft (version 0.x). Usually, the approval process requires that a document is circulated for comments among the interested partners. Upon receiving the comments by the specified deadline, the author will make the proper modifications, therefore changing the version sub-number, without affecting the main number.

Normally, the first official release of a document will be called V1.0 and this number will be assigned by the Project coordinator when he has approved the document. The main version number (the first figure before the ".") is increased by one unit only if a different version of the document is delivered to the Commission, or if major modifications have significantly altered the contents of the document. The editor must not forget to update the version number in all its occurrences in the document (File Properties and cover pages). Clearly, every care should be taken to avoid distributing different documents with the same version number. Every time that modifications are made to a document, the new version must contain a clear indication of what has been added, modified or removed.

#### ✓ Editing Guidelines

#### LOGO:

The logo of the project is shown on the first page and footer of this document and is available for downloading from the intranet of the project, under "Visual Identity" folder, and is also included in all document templates.

#### PAGE FORMATS:

The following rules should be followed in the production of all official project documents (Deliverables, Reports, etc.), and have also been used in the present document:

Document size and orientation	A4 Vertical orientation	
Margins	20mm vertical, 40mm horizontal	
Normal Font (for text)	12p Calibri (body)	

#### TEMPLATES:

Basic models for the production of official project documentation are available on the intranet. They are Microsoft Word Templates:

RE-SKIN - DX.X Format.docx All RE-SKIN deliverables must use this standard template. This will ensure that the look of all deliverables follows the RE-SKIN model. To create a new document, use right mouse and select "new", then "save as" "name.doc(x)"

RE-SKIN - Continuous update FORM.docx For Continuous Update Reports

RE-SKIN - Minutes.doc(x) For minutes of meetings.

#### STYLES:

A few basic styles have been defined in the editing of the present document. The different versions of Word in the different languages should automatically translate the basic styles (such as Normal, Heading 1 ..., etc.). Extra styles include styles for use in figure captions, table text and table titles, bullet lists and a few others. Specific styles are used in the cover sheet. In order to keep consistency across documents, the number of newly defined styles should be minimised.

Every time that part of a document is pasted into a second one, all the styles defined in the first document are automatically transferred into the second one. To avoid this (which results in an exponential growth of styles) this kind of operation should be carried out with care.

#### **POWERPOINT PRESENTATIONS:**

A template for overhead slideshows has been defined in RE-SKIN.ppt(x)

As a general rule, presentations should not be long, each page should contain only a few items summarizing one idea (avoiding verbose descriptions that can be made by the speaker). The fonts used in both text and graphics should be large enough for the audience to read, cryptic abbreviations should be avoided, the use of colour can improve readability.

## **5. PROJECT MANAGEMENT MANUAL**

## 5.1. Project Monitoring

Project monitoring goes ahead with the aid of a Gantt chart of the RE-SKIN project which summarizes the project activities and their expected start and end dates. The project progress will be monitored by the Project Coordinator through regular WPs, Tasks and Deliverable reporting prior to every GA/EB meeting on a fixed basis.

In order to monitor different aspects of project implementation, such as the financial situation, technical progress and deployment of communication and dissemination activities, several tools have been put in place and they will be illustrated in the following paragraphs.

#### FINANCIAL MONITORING:

In order to monitor the use of resources and to track expenditure continuously to make sure they align with the budget, the Coordinator prepared a tool for an **internal financial monitoring**.

This tool is an Excel sheet available on the project's Dropbox, that partners can update on a sixmonths basis to track down their expenditures for each budget's categories.

The screenshots below illustrate how this financial monitoring tool is structured and where it is stored for each partner's usage.

ROJECT NAME	RE-SKIN - Renewable	* *					
ROJECT PARTNER	cs BENEFICIARY 1	POLIMI		POLITECNICO DI MILANO	****		
DATE OF LAST UPDATE		European Union					
POUMI TOTAL	RUDGET				1		
TOLIMI -TOTAI	POLIMI			TASK ALLOCATION	POLIMI		
PM (PERSON/MONTH)	167.00			WP1 - Project management	23.00		
av. monthly cost	€ 5,000.00		T1.1	Project coordination	12.00		
personnel cost	€ 835,000.00		T1.2	Financial and administrative management	1.00		
ubcontracting	€ 0.00		T1.3	Advisory Board liaison	4.00		
11 12 1 1	€ 92,000.00		T1.4	Project Data Management and IP management	6.00		
other direct cost			WP	2 - Context monitoring and project resilience	27.00		
other direct cost travel	€ 40,000.00						
other direct cost travel equipment	€ 40,000.00 € 0.00		T2.1	Buildings retrofit market	-		
other direct cost travel equipment other goods&services	€ 40,000.00 € 0.00 € 52,000.00		T2.1 T2.2	Buildings retrofit market Economic and regulatory context and Smart Grids interaction rules	- 6.00		
other direct cost travel equipment other goods&services adirect costs	€ 40,000.00 € 0.00 € 52,000.00 € 231,750.00		T2.1 T2.2 T2.3	Buildings retrofit market Economic and regulatory context and Smart Grids interaction rules Compatibility and synergy continuous review	- 6.00 4.00		
other direct cost travel equipment other goods&services adirect costs OTAL COSTS	€ 40,000.00 € 0.00 € 52,000.00 € 231,750.00 € 1,158,750.00		T2.1 T2.2 T2.3 T2.4	Buildings retrofit market Economic and regulatory context and Smart Grids interaction rules Campatibility and synergy continuous review Technological and performance benchmarking process	- 6.00 4.00 5.00		
other direct cost travel equipment other goods&services adirect costs OTAL COSTS unding rate	€ 40,000.00 € 0.00 € 52,000.00 € 231,750.00 € 1,158,750.00 100		T2.1 T2.2 T2.3 T2.4 T2.5	Buildings retrofit market Economic and regulatory context and Smart Grids interaction rules Campatibility and synergy continuous review Technological and performance benchmarking process Gender and social innovation and balance assessment	- 4.00 5.00 4.00		

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#### CONTINUOUS UPDATE:

To support the efficiency and quality of this Periodic reporting process, an internal reporting procedure is set up in RE-SKIN on a fixed calendar basis.

Every three months, the partners are requested to send to POLIMI a "continuous update form" related to the previous period, according to the format shared in the Dropbox folder. Prerequisites for easing the reporting procedure are:

• All participants to keep timesheet records of who is involved in the project. These can follow the normal practice of each partner, but must track, month for month, who worked on what part of the project. The information stored should be at workpackage level for every person concerned.

For travel costs, again the normal practices of the organisation concerned can be used. Thus, if itemised travel costs are normally kept, then the total cost of the travel for each person involved should be reported in the management reports. If, on the other hand, a default daily reimbursement is used (irrespective of the real costs involved), then these default values can be reported again for every person involved. Please note that all travel costs must be specified per partner for every person who travelled. Please do not group travel costs together – they must be specific costs per person. Also, receipts must be kept, as the EC may want to see them.

Below an extraction from the continuous update form shows how this tool is structured, and which information are requested.

RE-SKIN	Funded by the European Unio
RE-SKIN - Renewable and Environmental	l-Sustainable Kit for building Integration
Consortium Partner	
Author of the form: Date: Form progressive number: Months of activity: WP involved: Task involved:	
Description of the activities carried out from the lat <u>WP number and title</u> Description	ist update
Note: for each mentioned activity, please specify i	if it's DONE (fully completed) or IN PROGRESS
Note: for each mentioned activity, please specify i	if it's DONE (fully completed) or IN PROGRESS

#### MONITORING ON COMMUNICATION AND DISSEMINATION ACTIVITIES:

A form to track the progress of the activities performed from a communication and dissemination perspective has been implemented to collect such information from each consortium's member. On a regular basis, each partner is requested to update the forms as activities go on – this will ease the reporting efforts and create an organized and exhaustive database concerning dissemination and communication activities.

The screenshots below illustrate how these forms are structured and how information is collected.

RE-SKIN	Communications Activities – RE-SKIN Report here about your event, non-technical article, press release, newsletter, etc. This will be uploaded on the EC portal. Activities promoting the project to raise awareness.
	* Required
	1. Communication activity name *
	Enter your answer
	2. Description *
	Enter your answer
	3. Date of the activity *
	Please input date (M/d/yyyy)

Dissemination Activities - RE-SKIN Report here about your conference, peer-reviewed paper, collaboration, meeting, training, etc. This will be uploaded on the EC portal. Activities communicating about results and outcomes of the project.
* Required
1. Dissemination activity name *
Enter your answer
2. What tune of discomination activity2 *
Conferences
Education and training events
O Meetings
Clustering activities
Collaboration with EU-funded projects
Other scientific collaborations
Other scientific cooperation

## 5.2. Project Reporting

#### 5.2.1. Deliverables

Each deliverable must be submitted to the EC, before obtaining approval by the Project Officer. Final acceptance of deliverables can only happen in a review. If deliverables are not accepted, then payment of financial claims could be delayed. It is thus in the interests of all partners that deliverables are produced in high quality and in the required format.

The RE-SKIN 80 Deliverables are strictly tied to the breakdown into Work Packages that defines the structure of the project. Deliverables are generally technical documents and have an essential importance for the Commission's appraisal of how the project is evolving, since they are written reports in which results produced during the project are collected and analysed.

#### **DELIVERABLE PRODUCTION**

Each deliverable tackles a specific subject and has a "Deliverable Manager" who will coordinate the production of the document, interacting as necessary with the other partners involved. Unless agreed otherwise among the partners involved, the Deliverable Manager is normally a person working for the consortium partner that is responsible for the deliverable according to the DoA.

The Deliverable Manager will define the document structure and the contributions expected from each partner in a preliminary document named **DDP (Deliverable Development Plan)** and will propose the calendar for the meetings he/she may consider necessary for the development of the deliverable. The Deliverable Manager, in accordance with the Project Coordinator, will also appoint 1-2 reviewers, chosen among project partners, who will be responsible for ensuring the high-quality level of the deliverable. The contents of the DDP must be finalised at least 45 days before the contractual date of the deliverable.

Then the deliverable will be produced. The Deliverable Manager will merge all contributions into a single document following as much as possible the structure defined in the DDP. This first draft will then be circulated and asked for comments. Each partner will check its consistency with the plans and give their feedback and approval.

This iterative procedure will be repeated as necessary, until all involved partners give approval. The Deliverable Manager will then prepare a final draft, which will be sent to the reviewers at least 15 days before the contractual date. The reviewers will normally not enter the technical merits of the deliverable but will essentially ensure that it is of sufficient quality to be sent to the Commission. They will also format it correctly and make sure all the naming conventions have been followed. The coordinator will finally send the requested number of copies to the Commission.

The diagram in Figure 4 summarizes the procedure to be followed for the preparation of deliverables.



45 days global timeframe Figure 1 - The deliverable preparation process.

#### DELIVERABLE DEVELOPMENT PLAN (DDP)

The DDP is issued by the Deliverable Manager in order to clarify the main objectives of the Deliverable and to assign the different contributors with specific tasks in the report. It should be agreed with the Project Coordinator at least 45 days before the due contractual date of the deliverable. The DDP must sketch the structure of the future Deliverable, and therefore contain a clear indication of:

- person responsible for the deliverable (Deliverable Manager);
- table of contents;
- persons in charge of each chapter/section;
- a timetable for the deliverable development, setting deadlines at least for:
- 1. submission of contributions;
- 2. production of the first draft (version 0.1);
- 3. internal review (partners' comments);
- 4. production of further versions of the draft (versions 0.x);
- 5. delivery to the Quality Manager.

All reports (scientific and financial) have to be submitted via the SEDIA portal.

The Project Coordinator keeps tracks of the deliverable advancements by filling in a table which summarizes the most important information about the deliverable and specifically its level of development. The screenshot below shows how this table is summarized and gives evidence of the information needed (by the Deliverable leader):

N	Deliv. (number)	Deliverable Name	WP numbe r	Lead •	Type •	Dissem. Leve <mark>'</mark>	Delivery Mon	DDP (Deliverable Development Plan)	Quality assessement date	Delivery Date	ACTUAL Delivery Dat	Status
19	D4.2	Optimized technical specifications of each component II	WP4	POLIMI	R	PU	13	17/12/2023	16/01/2024	31/01/2024	31/01/2024	Deliverable waiting for EC approval
29	D5.2	Manufacturing design of the multifunctional façade cladding II	WP5	GAR	R	PU	13	17/12/2023	16/01/2024	31/01/2024	02/02/2024	Deliverable waiting for EC approval
33	D5.6	Techniques/components for windows retrofit and the manufacturing design of the needed components II	WP5	ZH	R	PU	13	17/12/2023	16/01/2024	31/01/2024	31/01/2024	Deliverable waiting for EC approval
37	D5.10	Manufacturing design of the BIPVT roof system II	WP5	ZH	R	PU	13	17/12/2023	16/01/2024	31/01/2024	31/01/2024	Deliverable waiting for EC approval
45	D6.2	Manufacturing design of the technical components II	WP6	HELIO	R	PU	13	17/12/2023	16/01/2024	31/01/2024	16/05/2024	Deliverable waiting for EC approval
22	D4.5	Verification of the final configuration of the system II	WP4	ENTPE	R	PU	14	15/01/2024	14/02/2024	29/02/2024		Writing ongoing
62	D8.6	Final design of the renovation intervention II	WP8	ZH	R	PU	14	15/01/2024	14/02/2024	29/02/2024		Writing ongoing
65	D8.9	Assessment on monitored and simulated results I	WP8	POLIMI	R	CO	14	15/01/2024	14/02/2024	29/02/2024		Writing ongoing
15	D3.5	Lab testing report I	WP3	DTI	DEM	PU	15	15/02/2024	16/03/2024	31/03/2024		Writing ongoing
41	D5.14	Envelope components for on-field demonstration I	WP5	GAR	DEM	PU	15	15/02/2024	16/03/2024	31/03/2024	29/03/2024	Deliverable waiting for EC approval
49	D6.6	Technical components for on-field demonstration II	WP6	HELIO	DEM	PU	15	15/02/2024	16/03/2024	31/03/2024		Writing ongoing
2	D1.2	Project management and quality Plan II	WP1	POLIMI	R	PU	17	16/04/2024	16/05/2024	31/05/2024		Writing ongoing
7	D2.2	Application context periodic update II	WP2	ENTPE	R	PU	18	16/05/2024	15/06/2024	30/06/2024		Not started
26	D4.9	Optimized installation and disassembly procedures II	WP4	POLIMI	R	PU	18	16/05/2024	15/06/2024	30/06/2024		Not started
59	D8.3	Energy audits and surveys III	WP8	ZH	R	PU	18	16/05/2024	15/06/2024	30/06/2024		Not started
69	D8.13	Evaluation of building users satisfaction I	WP8	HE	R	CO	18	16/05/2024	15/06/2024	30/06/2024		Not started
30	D5.3	Manufacturing design of the multifunctional façade cladding III	WP5	GAR	R	PU	19	16/06/2024	16/07/2024	31/07/2024		Not started
34	D5.7	Techniques/components for windows retrofit and the manufacturing design of the needed components III	WP5	ZH	R	PU	19	16/06/2024	16/07/2024	31/07/2024		Not started
38	D5.11	Manufacturing design of the BIPVT roof system III	WP5	ZH	R	PU	19	16/06/2024	16/07/2024	31/07/2024		Not started
46	D6.3	Manufacturing design of the technical components III	WP6	HELIO	R	PU	19	16/06/2024	16/07/2024	31/07/2024		Not started

Figure 2 - Deliverable monitoring.

#### **5.2.2.** Periodic reports

The RE-SKIN project is organized in 3 Reporting Periods:

Reporting Period 1	From M1 to M18
Reporting Period 2	From M19 to M30
Reporting Period 3	From M31 to M42

Contractual obligations imply that within 60 days of the end of each reporting period (including the last reporting period) a periodic report should be submitted to the Commission, organised by sections as follows:

An **overview**, including a publishable summary of the progress of work towards the objectives of the project, including achievements and attainment of any milestones and deliverables identified in Annex I. This technical report should include the differences between work expected to be carried out in accordance with Annex I and that actually carried out.

An **explanation** of the use of the resources.

A **Financial Statement** from each beneficiary and each linked third party, if applicable, together with a summary financial report consolidating the claimed European contribution of all the beneficiaries (and third parties) in an aggregate form.

Financial statements should be accompanied by certificates, when this is appropriate (see Article 24 of the Grant Agreement).

#### **TECHNICAL REPORT**

At the end of every reporting period, POLIMI will prepare the project Periodic Report. It will contain the following summary information:

- Major achievements during the reporting period.
- Major problems identified.
- Deviations from the project plan.
- Resources used during the period.

POLIMI will be in charge of preparing this report with the support of all partners for additional contributions. This report will summarise the major achievements to date, any critical issues, the expected organisation for the remaining months of the project. It will include also a critical self-evaluation.

#### **FINANCIAL REPORT**

At the end of every reporting period, POLIMI will prepare a consolidated overview of the budgetary situation of the project, on the basis of the cost statements he has received from the partners. This report will be submitted to the Commission. The payments that have been made will also be reported. The budgetary situation will be compared with the original annual budget plan.

### **5.3. Project Review**

The European Commission controls the progress of the project by essentially three means:

- Periodic Reports.
- Deliverables.
- Project Reviews.

Project Reviews are normally one or two-day meetings held in a specific period of time defined by the European Commission where the participants illustrate the status to the Project Officer and a number of independent Project Reviewers nominated by the Commission.

These meetings are the most important events in the project's life, for the following reasons:

•The Project Officer and the Project Reviewers usually do not have much time to dedicate to the project. For them, Project Reviews are the main events to evaluate the project.

• Project Reviews are the only occasion to present to the Project Officer and Reviewers results of the project and to discuss its progress.

• Project Reviews are real opportunities to demonstrate the cohesion of the consortium and the commitment of the partners to achieve project objectives.

As a consequence, Project Reviews should be paid special attention by all the partners.

#### **PREPARATION:**

The following procedure is recommended for the preparation of Project Reviews:

• Approximately one to two months before the Review, the Project Coordinator in consultation with the General Assembly will define the main objectives to be accomplished during the Review, and consequently assign roles to the partners, prepare a detailed agenda and ask partners to prepare their contributions.

• Once agreed, the agenda will be sent to the Project Officer and agreed with her.

• Approximately two weeks before the Review, all project deliverables for the time period concerned must be made available to the Reviewers. This will be done by granting them access to the RE-SKIN Administrative Intranet site.

• Also, two weeks before the Review, all presentation material must be ready internally, so that all partners can check its consistency and the quality of the presentations and choose the best approach. The Project Coordinator will ensure the necessary quality checks are carried out.

• The day before the Review, a final rehearsal will be held for fine-tuning. Rules among the attending partners will be agreed (e.g. order of presentations, time management, etc.).

#### LOGISTICS:

In case that the review meeting is not held on EC premises, a detailed description of travel details (not just the address – but details of train, metro, taxi, schematic map of the meeting location, telephone number of someone in contact with the meeting coordinator) must be made available to the reviewers at least two weeks before the Review.

The location should be easy to access, all efforts must be made to avoid having reviews in places that imply long and complicated travel arrangements. Too much time is lost and the Project Officer and the Project Reviewers will not appreciate it.

Ensure that the meeting has internet access, printing services and photocopy equipment available at the Review location.

The Project Coordinator must liaise with the Project Officer for logistics information, checking that all the necessary information has been supplied.

#### AGENDA OF THE REVIEW:

The objective of a Project Review is to:

- *demonstrate project progress to the Project Officer and the Project Reviewers.*
- *demonstrate achievements through presentations, demonstrations, etc.*
- explain modifications to initial project objectives or planning to the Project Officer and the Project Reviewers.

The agenda should be organised accordingly, and have the following contents:

- Welcome.
- Introduction (by Project Coordinator):
  - o Presentation of the partners.

- o Presentation of project objectives.
- o Presentation of project organisation.
- Management summary:
  - o Activities performed since previous Review.
  - o Dissemination and exploitation efforts.
- Technical summary:
  - o Major results achieved since last Review.
  - o Modifications to the Workplan.

• Answer to questions, comments made by the Project Officer or Project Reviewers since last Review (when appropriate).

• Technical presentation of major results (presentation documents, demos, visit of laboratories, etc.).

• Conclusions and plans for the next period.

### 5.4. Financial Management

#### 5.4.1. Coordinator Responsibility

Overall financial management of the project is under the responsibility of the Coordinator, who shall distribute the financial contribution of the Funding Authority according to the Consortium Agreement and the approval of reports by the Funding Authority. Parties shall be found only for their tasks carried out in accordance with the Contract.

#### 5.4.2. Management of funding contribution from the Commission

Pre-financing payments are received by the project coordinator and distributed to the partners considering their share of the project budget.

The interim payment and the balance payment will be received by the project coordinator according to the rules set in the Grant Agreement with the Commission upon submission of the interim and final reports.

#### 5.4.3. Audit Certificates

In line with the rules set by the European Commission, an audit certificate is required when the actual costs (personnel costs, other direct costs, and subcontracting) are above 430.000 euros. The audit certificate will be requested once only during the project lifetime at the end of the action. To avoid timing issues, partners above this threshold are strongly advised to get in contact with their auditor in advance and before the end of the last reporting period.

## 6. RISK MANAGEMENT

The Risk Management Plan details the process for identifying and assessing risks, the tools, and techniques to be employed, the assessment scales and tolerances, the relevant roles and responsibilities, and the frequency for revisiting risks. The plan aims to outline the risk management approach and process for the project; define the roles and responsibilities related to risk management; specify the methodology (tools and techniques) supporting risk management.

### 6.1. Risk identification

As outlined in the DoA, the Consortium has analyzed the risks that could jeopardize the project's objectives. Based on the Work Plan, corrective actions have been established to mitigate or eliminate the most likely risks and those with the greatest potential negative impact on the project's success.

The following table details those risks that cannot be fully eliminated: exhaustive studies have been carried out to develop a feasible backup plan in case they materialize (see Table 1).

Description of risk (level of (L) likelihood, and (S) severity: Low/Medium/High)	WP(s) involved	Proposed risk-mitigation measures
General delays and global quality lower than expected (L:L, S:H)	ALL	Project management procedures and a dedicated project management team will implement regular monitoring on the performed activities to detect possible problems in advance.
A milestone is missing due to incomplete deliverables, the related work package is delayed. (L:M S:M)	ALL	Strict coordination, reporting and check of deliverables will reduce this risk throughout the project. The Consortium agreements will clearly specify the duties of each partner. If necessary, the PM allocation will be revised to ensure that the failed task is performed as quickly as possible.
Delay and poor quality of the deliverables (L:L, S:H)	ALL	The continuous monitoring performed in WP1 will ensure a timely delivery of planned outputs. A specific deliverable development plan will reduce drastically quality and time issues.
Consortium is too big for an effective management (L:L, S:M)	ALL	<ul> <li>Partners have been selected for their experience in research projects.</li> <li>Moreover, several of them are close-knit as they have already worked together in the HEART project.</li> <li>A dedicated project managing team will be set up by POLIMI (with support from FPM) to continuously check the project's progress.</li> </ul>
Lack of timely decisions (L:L, S:H)	ALL	The Management Structure and internal communication flows allow for an agile management of the consortium and fast decision-making processes. Periodic working group meetings are foreseen. GANTT chart and milestones draw the timeframe for the developments.

Project results are not tailored for	WP10	The involvement of a highly skilled and experienced partner in
dissemination towards the key		C&D activities (REV) will minimize the risk of sending out
stakeholder categories (L:M, S:M)		inappropriate messages to the wrong stakeholders. A sound
		communication strategy will be implemented.
Objectives are too challenging (L:L,	ALL	The project's progress will be continuously assessed and fall-
S:H)		back strategies implemented as needed. The management
		structures will enable partners to follow the progress in the
		achievement of all the objectives.
Disputes over ownership of IP	ALL	The share of responsibility for each single result within project
amongst partners (L:L, S:M)		partners has already been clarified. IPR issues will be constantly
		monitored and addressed when needed
Results do not reach the market (L:L,	WP8	Industrial partners are strongly committed to innovate and
S:H)		bring their products on the markets. The financials have been
		explored showing the proximity to the market. A number of
		activities are foreseen to

## 6.2. Risk assessment

Along with the risk identification, it is crucial to assess the likelihood and impact of the identified risks in terms of their influence to the project objectives. This assessment is necessary before any risk response planning can be done.

Risks are assessed based on their likelihood of occurrence and the impact in project objectives. The product of their likelihood and impact defines the <u>Risk Level</u>, which is then used as a reference for their prioritisation and risk response development.

Likelihood is classified as follows:

- Low: Very unlikely/low probability to occur
- Medium: May occur
- *High: Very likely to occur / expected to occur*

On the other hand, severity classification follows these criteria:

- Low: No effect or very limited effect on the project, without changing its achievements.
- Medium: Moderate impact but important project outcomes and main goals are met
- High: Severe consequences on project achievements and, in the worst case, project fail.

### 6.3. Roles and risk process management

The Project Coordinator will report to the Executive Board the status of the major risks and to other project stakeholders. If any of the identified risks occur, then the Project Coordinator will ensure the implementation of the contingency plans and communicate the issue to the Executive Board. If a technical problem related to a specific work package arises, the problem should be highlighted to the WP Leader. Depending on the risk level, the WP leader may decide to involve the appropriate

Director, and should the situation be particularly critical also the rest of the Executive Board, who should raise the matter at the General Assembly meeting.

The General Assembly has the ultimate authority to solve the problem.

## 7. CONCLUSIONS

This document continues to build on the supporting procedures and project coordination aspects already outlined in the preliminary version of this deliverable, D1.1 released at M4. It not only maintains continuity with these established elements but also introduces more detailed expansions in several areas. Notably, it provides a more comprehensive framework for project governance, ensuring clearer roles, responsibilities, and decision-making processes. Furthermore, it enhances the procedures and processes for project monitoring, offering improved tools and methodologies for tracking progress and performance. Finally, it strengthens the approach to risk management, incorporating advanced strategies to identify, assess, and mitigate potential risks more effectively throughout the project's lifecycle.