

# PROJECT LIFE SNEAK

## *“OPTIMIZED SURFACES AGAINST NOISE AND VIBRATIONS PRODUCED BY TRAMWAY TRACK AND ROAD TRAFFIC”*

### E1.1. “PROJECT MONITORING PROTOCOL”

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PROJECT DETAILS	
<b>Project location</b>	ITALY: Toscana, Calabria, Lombardia, Lazio
<b>Project start date</b>	1 September 2021
<b>Project end date</b>	31 August 2024
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<b>EU contribution</b>	1.036,188 Euro (55% of total eligible budget)
<b>Total eligible budget</b>	1.883,982 Euro
<b>Project Website:</b>	<a href="http://www.lifesneak.eu">http://www.lifesneak.eu</a>

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CONSORTIUM OF PARTNERS		
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COMUNE DI FIRENZE	Coordinator	Toscana
ASSTRA – ASSOCIAZIONE TRASPORTI	Associated	Lazio/Italy
ECOPNEUS S.c.p.a.	Associated	Lombardia
MOPI S.r.l.	Associated	Toscana
Università di Firenze	Associated	Toscana
Università Mediterranea di Reggio Calabria	Associated	Calabria
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## 1. COORDINATION, MONITORING AND PROJECT MANAGEMENT

The overall goal of this document is to provide an efficient coordination, monitoring and management for all the actions planned, in order to reach the set targets in terms of foreseen results and budget. It has the following contests:

- ensure the best use of the resources allocated to the project
- manage communication among project partners
- manage communication with the European Commission
- identify and solve any problem and/or delay that may possibly arise
- maintain technical control over the project
- manage all financial aspects in the correct manner
- review and finalise all the internal reports and documents produced
- guarantee a high level of quality regarding the project products
- guarantee that all the activities are carried out with regard to minimise the ecological footprint of the project as far as possible.

The project is managed by Dott. Arnaldo Melloni (Project Manager – PM) from Comune di Firenze which have responsibility for technical aspects and relations with the European Commission. VIENROSE partner holds the role of co-project manager and will support Comune di Firenze in project managing activities. The PM and the co-PM rely on a team (Project Management Team – PMT) with the tasks to manage the implementation and reach the set targets of the project. PMT structure is developed in order to face the unforeseen difficulties, allowing flexibility and dialogue between the different parts of the staff, and includes one person from each partner.

Members of the PMT are respectively:

- Arnaldo Melloni for coordinating beneficiary - FIRENZE
- Raffaella Bellomini for VIENROSE partner
- Filippo Giammaria Praticò for UNIRC partner
- Lapo Governi for UNIFI-DIEF partner
- Daniela Carbone for ASSTRA partner
- Walter Giagoni for MOPI partner
- Serena Sgarioto for Ecopneus partner

The PM and the co-PM, together with the PMT and with contributions from all partners, monitors each project action.

Regarding the implementation and the enhancement of policies related to project contents, a stakeholder register, divided into local, national, international ones will be defined, containing information on:

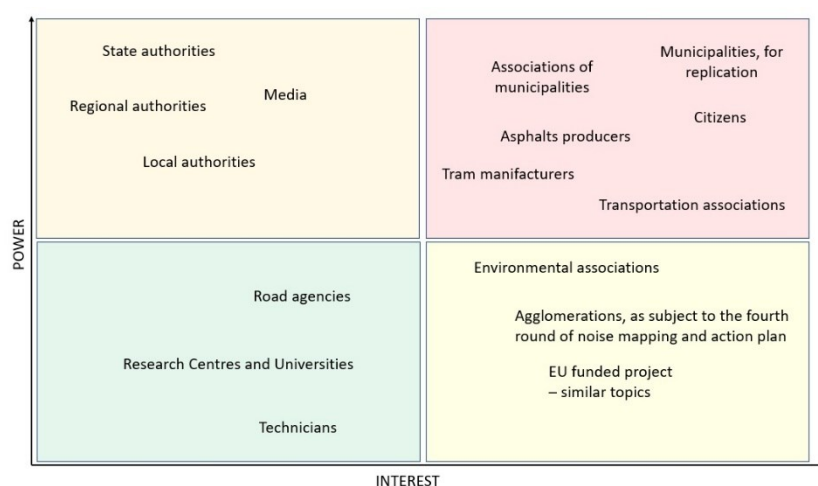
- requirements and expectations
- level of interest
- area of influence (how their interest and business goals overlap with the project)
- power (how they can change / stop the project)
- engagement approach (communication forms, frequency, monitoring of satisfaction / interest / involvement).

The stakeholder register (Figure 1.1) will be periodically updated by VIENROSE which every six months will ask project partner to update and integrate it, taking care to involve the new identified stakeholders in the proper way.

STAKEHOLDER REGISTER										
Project title: LIFE SNEAK							Project Number: LIFE20 ENV/IT 181			
ID	Name	Title	Contact information	Major requirements	Major expectations	Roles / responsibilities	Influence (1 to 5)	Power (1 to 5)	Interest (1 to 5)	Classification

**Figure 1.1 Stakeholder register**

Moreover, a stakeholders engagement plan will be delivered within June 2022. The resulting plan for each stakeholder will include 'why', 'who' and identify 'how' to engage, as well monitoring outcomes, to be summarized in a stakeholders matrix (Figure 1.2).



**Figure 1.2 Stakeholders matrix**

## 2. MONITORING PROTOCOL

The aim of the monitoring protocol is to explain how project-monitoring data have to be collected, analysed, discussed and reported. It is a key component of quality assurance for the project. The protocol is necessary to highlight project deviations from the Project proposal and to identify preventive actions (actions to eliminate the cause of a potential problems) and corrective actions (actions to eliminate a detected problems) (ISO, 2011).

In essence, the monitoring protocol must enable to re-plan and re-design (if necessary) the activities, so as not to overcome the set targets, by analysing in depth the causes that have led to deviations from targets established in the Project proposal. This activity is carried out by gathering information about the resources involved in the project, evaluating periodically: time spent on each activity, costs incurred compared to the forecasts, quality and completion of the deliverables associated with the corresponding activities. Specific indicators on planned activities and environmental and socio-economic performances and collect data in order to assess this information from each partner (for more details see the action C1) are defined.

The work for each action is organized by the leader of the action according to a pattern, as follows: when the sub-actions must be completed and how long they take, how, who and what is necessary to complete sub-actions in the timeframes, and who does what. To this end, progress meetings are organized where the progress of the project and activities/sub-activities to be done are proposed or discussed (see Section 3).

## 3. MEETINGS AND SCHEDULING OF MONITORING

General PM activity includes 7 general meetings (1 kick-off, 5 mid-term, 1 final), hosted in the coordinating beneficiary premises in Florence (1-2), Reggio Calabria (1), Milan (1), Rome (1) and in digital mode.

A kick-off meeting, held in Florence in October 2021, launched the project and gave practical information on the actions and on the management to all partners; final meeting will close the project and evaluate results.

Periodic meetings will be held online between the leaders of the Actions and the contributing partners to monitor the fulfilment of the work programme as well as the foreseen deliverables and outputs and the achieved results obtained in the previous months.

Coordinating beneficiary, supported by VIENROSE as co-project manager, issues the progresses, mid and final reports (whose deadlines are reported in Table 3.1) to the European Commission. Internal deadlines for sending documents to the Coordinating beneficiary are also established.

Type of report	Official deadline for sending documents to EU	Internal deadline for sending documents to the Coordinating beneficiary
Midterm report	31/10/2022	31/08/2022
Progress report	31/10/2023	31/08/2023
Final report	30/11/2024	30/09/2024

**Table 3.1 Report deadlines**

Project Management will be performed according to the highest quality standards and procedures (ISO compliant or equivalent), and it is structured into the following activities:

- periodic meetings of PMT, in order to decide whether to continue or not a certain task
- periodic meetings with technical and administrative staff
- preparation of reports
- comparison with the program's time-scales
- checks on effective progress
- collation of technical results with the project's progress
- implementation of dedicated tools for recording of staff working days; cataloguing and classification of all expense related documentation; recording and monitoring of obtained results: compilation of necessary forms; supply of documentation which may be requested by the Commission.

The PMT will assist PM in issuing monitoring reports on a semester base.

The six-month reports will contain three sections:

- evaluation of general results related to the Project's objectives, (immediate production in the short term and direct impact of the Project on the target and stakeholders in relation to the situation at the beginning,
- results evaluation in terms, for example, of concrete products, deliverables, meetings foreseen during the evaluation period and including monthly reports provided on a monthly base by partners
- evaluation in terms of efficiency of the working methods (communication, participation in meetings of all partners, use of website, transparency of administrative and financial procedures, assessment whether the selected methodology is the correct one to achieve the objectives, the work plan has been respected, etc).

It is foreseen:

1. Initial Monitoring, within three months after Project's beginning.
2. Intermediate Monitorings, performed at six months intervals following the initial monitoring, to ensure that the Project is continuing appropriately and to identify any situations that need to be corrected.

Moreover, to assure a punctual assessment of resource allocation and technical activities compliance with the project objectives, an internal **financial reporting on a trimester base** and a **monthly report** are requested to the partners.

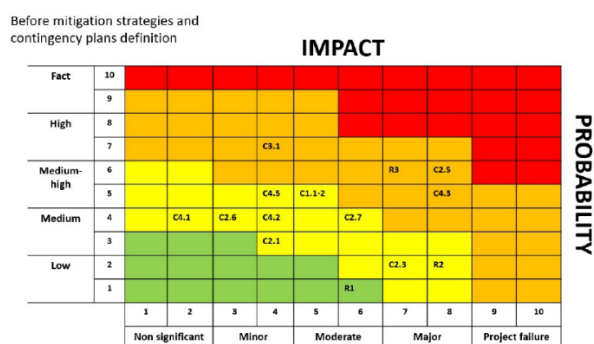
## 4. NON-COMPLIANCE MANAGEMENT

The PMT, as responsible for decisions related to any changes within the project, establishes that each beneficiary is responsible for the expenses related to the activities for which it is responsible or in which it is involved in the project. Consequently, in case of non-recognition by the European Commission of an expenditure already incurred by the responsible partner, the PMT considers that such expenditure is deducted from the partner's share of the budget.

## 5. RISK ANALYSIS

Expected constraints and risks related to the project implementation have been described and analysed in detail in the Project, but unforeseen delays and difficulties, of various kind, could be encountered, due to the great number and to the different typologies of the activities (formal and administrative issues, technical difficulties, socioeconomic environment).

The Contingency Plan, as provided by the Project proposal, aims to evaluate possible obstacles and risks during project implementation and offering preventive and corrective actions. The identified solutions to cope with possible obstacles and risks during the project implementation have been considered in the project plan in terms of external (policy, environmental, law changes) and internal constraints (technical, management ones). Considering defined risks and constraints, figure 5.1 reports their likelihood and impact before the definition of mitigation strategies and contingency plan definition.



**Figure 5.1 Risk matrix – before contingency plan**

Priority is assigned based on coloured scale to R&C: critical (red), high (orange), moderate (yellow), low (green).

Contingency plans are established for R&C having high priority, in particular for:

**R1** Policy - Possible changes in national or local policies adversely affecting the development of the whole project; this might generally have a major impact on such projects; the commitment of the coord. ben. is assured by a multi-year experience on noise and mobility projects, thus it is unlikely that such changes might affect actions in Florence. No contingency plan is needed.

**R2** Law changes - It is a second risk especially related to action B2, implementation of pilot interventions. It is possible that additional requirements arose during the project action, so that



it is necessary to minimize the impact of eventual additional tasks to be completed, otherwise impact can be a major one.

Contingency plan: Additional time buffer is assigned to action B2 compared with standard time evaluated to complete the action in order to minimize possible delays affecting the overall project development.

**R3 Environmental influence** - It is related both to potential extreme events like floods and to weather conditions adversities. The first might be catastrophic but fortunately are rare events and in any case can justify a postponement of project end, having no need of contingency plan. The second ones mainly affect all the action needing good weather conditions for their development, namely actions A2-B2-B3-B4, prototype and track construction, efficiency tests and psychoacoustics analysis. Bad weather has a major impact since it is not possible to lay pavements or perform tests during rainy days and obviously they are likely to happen. Contingency plan consists in correct time allocation of actions influenced by this risk. For action B2 a full year is reserved, and the laying and prototype setting is expected in summer such that good weather conditions should be likely to happen and temperatures allows fast drying of the surfaces. On the other hand, for A2, B3 and B4 actions adequate time is foreseen to complete the action in case of bad weather.

**C1.1** - The tender can fail, due to the very detailed and defined specifications / requirements procurement SOW (Statement of work): the compounds must be made in a very precise way and in the tender specifications there will be strong constraints and penalties in the case of non-compliant

**C1.2** – one of the potential contractors appeals; also in this case the procedure risks to be suspended with the risk of losing a lot of time in managing procedures blocking the project for a long time. Mitigation strategies:

1.1 - in drafting the tender specifications, criteria and definitions with the least margin of ambiguity will be used: the scope statement of procurement will be clear and detailed, with minor risk of interpretations and consequent potential appeals. in case of disputes, the arbitration method will be privileged, because it is usually faster and cheaper than the courts.

1.2 - wide margins of time have been foreseen in the baseline scheduling

**C2.1** - Lack of quality of the product in the paving: in the case that laying have to be repeated, the main risk is an extension of time, the second one is the risk of possible disputes and relative activation of procedures for their settlement. Mitigation strategy: in the tender specifications, very strict constraints will be placed on the curriculum of the company, and a bank guarantee will be required to ensure that in case of poor quality of the paving it does not lead to damage to the project and it is possible to repeat it without added costs. Tests are planned just after the new asphalt laying so that it will be possible to request a new laying repetition immediately.

**C2.2** - risk related to the prototype (bogie skirt and absorbing panel) realization: it could not be possible to overcome the bureaucratic procedures for the modification of a standard and certified Public Transport vehicle:

Mitigation strategy: UNIFI and FIRENZE already obtained a preliminary and informal ok from the builder; anyway, being a pilot intervention, ultimately it can be disassembled.

**C2.3** - risk related to the realization of the prototype (bogie skirt and absorbing panel): the prototype could cost more than budgeted.

Mitigation strategy: the cost analysis has already been carried out in the proposal analysis phase, and this should reduce the risk. However, part of the risk is in any case assumed by FIRENZE giving its commitment to the project

**C2.4** Risks associated with assessment of impacts.

Mitigation strategy: Construction-related activities imply environmental impacts that have been preliminarily estimated and mitigated through the use of appropriate technical solutions (e.g., using lower temperatures during mixture production).

**C2.5** - Risks related to the realization of the intervention scheduling. Since the pilot intervention is planned concurrently with the construction of the new tramway line, there is the risk that, due to potential delays in the construction of the new line, there will be delays in the realization of the pilot intervention.

Mitigation strategy: Preparatory works for the construction of the line has already begun (December 2020); the timetable of the construction of the tramway line, already in possession of the Municipality of Florence, guarantees a wide buffer of time even in case of delays, already been considered by extending the action B2 until the end of the year 2022. So, further unexpected and unfortunate delays (contained in the range of additional 4/6 months) can be managed without modifying the scheduled baseline. Moreover, since project coordinator is also the sponsor of the construction works, it will use all possible actions and strategies to adapt the scheduling; in case of needing, fast tracking methods (schedule compression) might be used.

Contingency plan: Ultimately, the interventions of the pilot case could be moved to another site, where the tramway line is already in place, with similar context characteristics.

**C2.6** - Quality-related and context related constraints. A few technical constraints arise from restrictive site area in terms of storage space, congested surroundings, material apportioning, working zones, and traffic management.

Mitigation strategy: These technical constraints have been readily recognized at the stage of design and specific countermeasures have been scheduled to overcome all constraints.

**C2.7** - Producer of modified bitumen binder is not flexible enough to apply new formulations. It may happen that prospective sellers (road builders) purchase the bitumen already modified, and are unable to modify it themselves according to the quality specification of the statement of work  
Mitigation strategy: In the bid documents, special provision will be foreseen, to guarantee that that the company that lays the asphalt is the same entity that produces the modified bitumen itself

**C3.1** - citizens do not want to participate in the perception surveys and are not willing to host noise and vibration measurements in their homes

Mitigation strategy: we will start with the selection of the sample and with the planning of the surveys well in advance; we will make wide and relevant publicity campaigns of the project, so that citizens, in case they are asked to participate in the survey, are aware of the existence of the project; public meetings to disseminate the objectives of the project, where the city policymakers and administrator will participate will be organized. Citizens who participated in the surveys will be invited and awarded by the municipality of an official recognition.

**C4.1** - Personnel deficits. Personnel already involved in the project might leave due to several reasons; as all the partners have a solid structure guaranteeing adequate substitutions, personnel issues are considered having a moderate impact.

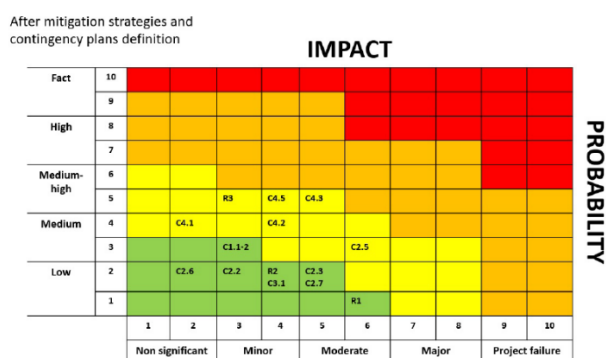
**C4.2** - Service supplying delays are often due to late assignment of external tasks or to inexperience of the supplier. They are evaluated as possible because it is not always possible to choose a suitable supplier, but the impact is evaluated moderate on the project because external services are not crucial activities within the project.

**C4.3** - Economic constraints: are always a major issue in projects because it is likely to happen that some unforeseen expenses are needed to cover difficulties. Difficulties might be related to perform extra tests that were not foreseen or to pay fees for external requirements not envisaged at the beginning of the project.

Contingency plan is established in allocating safety funds to each action; however, part of the risk is in any case assumed by partners giving their commitment to the project. In any case a deep analysis of actions' needs in the proposal stage, allow allocating reasonable funds for actions and lowering priority of this constraint.

**C4.5** - Planning issues. Planning constraints are part of every project, but we consider that no further contingency plan is needed apart from the correct project proposal definition since partners already met together to define such dependencies and are aware of their duties and deadlines. Sufficient time allocation of actions guarantees itself that planning issues are unlikely (every partner is aware of deadlines) and have minor impact (time buffers are added to actions). Finally, the management risk is considered limited by the mutual experiences of partners, already been involved together in several EU funded projects.

Therefore, considering contingency plans, figure 5.2 reports updated R&C table.



**Figure 5.2 Risk matrix after contingency plan**

Based on the probability and impact risks matrix, **a Risk register will be set up and updated on a semester base by PM and Co-PM.**

In case a risk response planning occurs, PM and Co-PM implement a risk responses process. Decisions about corrective actions to be implemented are taken by PM with support of PMT. Corrective actions are agreed by majority of PMT, after a mandatory consultation of all partners. In case of absence, the Coordinating beneficiary must consult the absent partner by e-mail. The consulted partner must reply within 7 working days. If there is no response within this period, the partner loses his or her right to vote. In this case, the absolute majority is expressed by counting the votes cast.

In case of urgency, decisions can be taken by e-mail exchange, with consultation of all partners. In order to facilitate such consultation, the vote should be expressed with a clear answer: YES or NO the result of the vote will be communicated to all partners by the Coordinating beneficiary.

## 6. COMMUNICATIONS

Ordinary communications and document transfers between members of the PMT take place through the use of electronic mail ([lifesneak@vienrose.it](mailto:lifesneak@vienrose.it)), managed by FIRENZE and VIENROSE.

Storage of documents:

- A Google drive space (folder subdivided into subfolders protected with password, accessible by FIRENZE and VIENROSE) has been created in order to manage financial documents
- A Google drive space, accessible by all the partners, has been created to archive management, dissemination and technical documents.

Formal communications from PM and Co-PM, will be addressed to specific partners in case of envisagement of risk related to any project issue (see following paragraph).

## 7. APPROVAL OF THE DOCUMENT

This document is sent to all members of the PMT who confirm their admission by e-mail.