MILESTONE C
QUALITY ASSURANCE PLAN

Action E1
Inception report June 2015

IMPROVE LIFE13 ENV/ES/000263

Coordinated by

idaea CSIC

Content

1. PREAMBLE

This document describes the planning, implementation, and assessment procedures for the IMPROVE LIFE project, including management structure, rules and the supervision of the overall progress. The IMPROVE LIFE Quality Assurance Plan shows an appropriate workflow between consortium partners and the various roles, designed for the project.

The objective of the project is to provide to the local and national transport authorities of European countries the appropriate measures and strategies to reduce concentrations of inhalable particulate matter (PM1, PM2.5 and PM10) and identify toxic chemical components in underground rail air. It falls within the specific objectives of the LIFE+ call: "to achieve levels of air quality that do not give rise to significant negative impacts on and risks to human health and the environment".

2. PROBLEM DEFINITION/BACKGROUND

Over the last decade several pioneering studies have monitored subway air quality across a range of cities in Eurasia and the Americas, but thus far the growing database, although obviously valuable and full of good work, remains piecemeal in character. Physical measurements frequently consider only one aerosol size fraction, sampling campaigns may be limited in time and place, and chemical analyses are usually partial and/or small in number.

Differences in air quality between underground systems have usually been attributed to different wheel materials and braking mechanisms, as well as to variations in ventilation and air conditioning systems, but may also relate to differences in measurement campaign protocols and choice of sampling sites. Very few published studies have focused on how PM levels in metro systems might be reduced.

The IMPROVE project will focus on which conditions are the best for an optimal air quality in the station and inside the trains. To achieve this a complementary collection of different methodologies will be used aiming to elucidate differences in air quality between the old and new lines, under differing ventilation conditions in platforms and tunnels, different platform designs, different catenaries (Cu/graphite), with trains using different brake pad compositions, different air filters in trains, and after tunnel activities of different nature have been performed (cleaning, yielding, rail maintenance). A series of techniques will be applied, including continuous monitoring of PM10, PM2.5 and PM1, particle size distributions (0.3 to 20 µm, Optical Particle Sizer 3330, TSI), CO and CO2, NO2 (passive samplers), as well as complete chemical analysis of inorganic and organic (polycyclic aromatic hydrocarbons) compounds in PM2.5 quartz microfiber filters (high volume sampler MCV CAV A/M-S PM2.5) and morphological and size analysis of individual particles by means of Electron Microscopy (both SEM and TEM). The joint data of levels and composition is necessary to apply statistical analysis to identify main emissions sources of PM, whereas the microscopy study of these

particles will give us information, not only on the size, but also on the shape of the particles, which is also related to the originating source.

The project is designed to combine traditional and state-of-the art aerosol measurements with receptor models, to investigate the impact of pollution sources in what has been up until now a poorly understood indoor environment. An innovative aspect is the use of these complementary techniques to identify best cost-effective measures for an optimal air quality in subway systems worldwide.

3. IMPROVE LIFE MANAGEMENT

3.1. Participants

The project has 3 participants:

- the Coordinating beneficiary, the Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC), which is the largest multidisciplinary research organisation in Spain (116 centres, more than 10000 employees). It has considerable experience in both participating and managing projects and training grants, being the 5th organisation in Europe in project execution and funding within 6th Framework Programme. The CSIC experts in air quality belong to a Geosciences Department within the Institute of Environmental Assessment and Water Studies (IDAEA) and focus on the study of particulate (PM) and gaseous air pollutants. Particular attention is given to the monitoring of atmospheric aerosols and the subsequent analysis of PM components in order to quantify the major PM source contributions. The practical applications of the research refer to the interaction of aerosols and climate, the impact of air pollutants on health, the need to devise pollution abatement strategies, and more recently on air quality in indoor environments.

- the Associated beneficiaries are the companies Ferrocarril Metropolità de Barcelona, S.A. (TMB-FMB) and Transports de Barcelona, S.A. (TMB-TB), both under the management unit of Transports Metropolitans de Barcelona, TMB. These bodies provide a collective passenger transport service for the city of Barcelona, as well as to various municipalities within its orbit of influence, through two transport networks - surface and underground -which complement each other and, at the same time, share this area of activity with the other companies in the sector. As the owner of both companies' shares, Área Metropolitana de Barcelona (AMB) is the governing body that establishes the business guidelines for TMB to follow.

All partners can guarantee the sustainability of the project results through their own funds that include long-standing national and regional funds such as:

-The national project METRO: “Caracterizacion fisico-quimica y toxicologica de particulas inhalables en el aire ambiente del Metro suburbano” financed by the Spanish Government.

-The regional fund: "Identification of particulate emission sources by means of physico-chemical characterization of aerosols". It started on January 1997 and is financed by the Regional Government of Catalonia, Departament de Medi Ambient, Direcció General de Qualitat ambiental, Generalitat de Catalunya and is renovated every year.

- TMB-TB and TMB-FMB budget annually allocates economic costs for projects concerned with the environmental effects of the operation and maintenance of the public transport network, including projects to reduce energy consumption, improve air quality and promote a more sustainable culture amongst all of us.

3.2. Management Team

The management of the project is the responsibility of IDAEA-CSIC with the participation of members from TMB-TB and TMB-FMB and will be carried out at two different levels: strategic and operational group level. It focuses on the effective administrative, scientific and financial coordination and proper implementation of the project. This structure will enhance the monitoring effort and make the management structure practical and easy to interact with, due to its reduced size, as well as encourage the closest collaboration between the three partners, namely CSIC, TMB-TB and TMB-FMB.

The organigram of IMPROVE LIFE project, with the role of the beneficiaries, persons and actions involved is given in Figure 1.

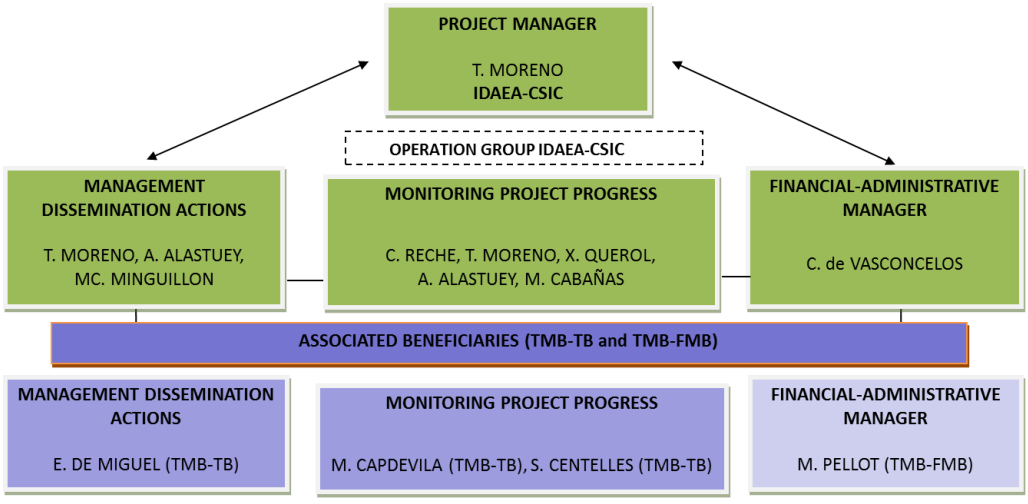

Figure 1. Management structure of the IMPROVE LIFE project

The Project manager is Teresa Moreno from the coordinating beneficiary IDAEA-CSIC, also scientific manager, who is responsible for the overall coordination of IMPROVE LIFE project. Cristina de Vasconcelos (CSIC) and Michael Pellot (TMB-FMB) are the Financial and Administrative managers and responsible of the continuous update of the IMPROVE LIFE

website. Therefore, the operation group of both partners, consisting of scientists, technicians and administrative personnel, assists the project manager and the financial manager to execute their tasks.

4. OVERVIEW OF THE PROJECT PHASES AND WORKLOAD

Table 1 gives an overview of the project, tasks and activities per action. The workload of the beneficiaries in every action is given in Table 2.

Table 1. IMPROVE LIFE overview

START	OBJECTIVES
A. PREPARATORY ACTIONS	
A1 Documentation of current status and selection of critical parameters to be tested	
1-oct-14	• Catalogue/describe previous studies on air quality conditions in subway systems worldwide. • Identify gaps and omissions in these previous studies. • Recommend priorities with regards to the emission sources to be tested.
B. IMPLEMENTATION ACTIONS	
B1 Determination of the impact of selected parameters	
1-ene-15	• Determine the impact of the previously selected parameters to elucidate differences in air quality under such parameters (old/new lines, ventilation conditions, platform designs, catenaries, brake pads, air filters, tunnel activities).
B2. Testing mitigation measures and Development of mitigation strategies	
1-abr-15	• Implement a series of experiments on the parameters from B1, with solutions proposed for reducing their contribution to poor tunnel and platform air quality. • Elaborate a report overviewing the possible corrective measures that could be applied to reduce PM emissions in the subway system, ranking their overall potential benefit.
C. MONITORING ACTIONS	
C1 Effectiveness of the project actions.	
1-abr-15	• Evaluate the effect of B1-B2 actions on PM levels and composition in the subway, by comparing levels and chemistry of PM before/after the studies. Air quality benefit will be calculated in $\mu g/m^3$ abated by the mitigation experiments. • Identify the parameters/indicators used to assess the impact of the project.

C2 Assessment of the socio-economic impact of the project.	
1-jul-16	• Test if current levels and components of PM are desirable. • Monitor the general public perception of air quality problems with ad-hoc questionnaires • Access and increase European awareness for the need for specific air quality regulations across subway systems (organization of conferences, meetings and workshops).
D. COMUNICATION AND DISSEMINATION ACTIONS	
D1 A Project website.	
1-oct-14	• Create update the IMPROVE LIFE website.
D2 LIFE+ Information boards.	
1-oct-14	• Create and place information boards, describing the project's objectives and activities, addressed to the general public.
D3 Dissemination of project results	
1-oct-14	• Convey the project results to the general public, stakeholders, researchers, public transport institutions and governmental institutions.
D4 Production of Layman's Report.	
1-jul-16	• Inform political and transport decision-makers and the general public of the results of the project.
E. MANAGEMENT ACTIONS	
E1 Project Management and Audit.	
1-oct-14	• Coordinate the development of activities • Coordinate partners • Comply with reporting obligations
E2 Monitoring of the project progress.	
1-oct-14	• Verify the compliance with the Grant Agreement • Maintain communication between partners, Monitoring Team and the EC
E3 Networking with other European projects (including LIFE+).	
1-oct-14	• Networking with LIFE+ projects: PM3, CMA+, REDUST, AIRUSE • Networking with other EU projects: ERRAC-ROADMAP, SEAM4US, MODSAFE, Seconomics, URBAN TRACKCLEAN ROADS • Organize workshops
E4 After-LIFE+ Communication Plan.	
1-jul-16	• Setting how the long term application of the proposed strategies will be secured

Table 2. Summary table of beneficiaries tasks in every action

START	IDAEA	TMB-TB & TMB-FMB
A. PREPARATORY ACTIONS		
A1 Documentation of current status and selection of critical parameters to be tested		
1-oct-14	• Report on an historical database for air quality and pollutant sources in worldwide subway systems. • Prioritize PM pollution sources and selection of parameters to test.	
B. IMPLEMENTATION ACTIONS		
B1 Determination of the impact of selected parameters		
1-ene-15	• Conduct Sampling campaigns in trains and platforms, dealing with all sampling equipment. • Perform Chemical analysis • Complete Source apportionment study and the relative importance of each source. • Report on the concentrations of chemical tracers for pollutant sources in subway systems and the impact of each of them on air quality. • Report overviewing the full impacts on air quality of each of the selected parameters. • Report every 6 months on the advancement level of the sampling campaigns, chemical and statistical analysis.	• Conduct all the mechanical/infrastructural issues related to the transport, allocation, power supply and security of monitoring equipment during the measuring sampling campaigns. • Conduct all infrastructures for measuring inside trains, controlling changes in ventilation inside the coaches.
B2. Testing mitigation measures and Development of mitigation strategies		
1-abr-15	• Conduct sampling campaigns in trains and platforms, dealing with all sampling equipment. • Perform Chemical analysis: IC, ICP-(MS & AES), ECOC analyser. • Report every 6 months on the advancement level of the sampling campaigns, chemical and statistical analysis. • Report with recommendations for cost-efficient measures to reduce the impact of particle emissions of the parameters studied.	• Conduct all safety and organisation of the activities carried out inside the tunnels. • Organise and supervise all activities within the metro to assure their effectiveness and safety.

C. MONITORING ACTIONS		
C1 Effectiveness of the project actions.		
1-abr-15	• Set the indicators to assess the effectiveness of the project against the initial situation • Prepare the report on the effectiveness of the project	• Assist in the selection of indicators to assess the effectiveness of the project • Assist IDAEA-CSIC in preparing the report
C2 Assessment of the socio-economic impact of the project.		
1-jul-16	• Prepare questionnaires for the general public and stakeholders • Prepare the report on the socio-economic impact	• Prepare and disseminate questionnaires for the general public and stakeholders
D. COMUNICATION AND DISSEMINATION ACTIONS		
D1 A Project website.		
1-oct-14	• Prepare and operate the website	• Assist in the preparation of the website, providing material
D2 LIFE+ Information boards.		
1-oct-14	• Prepare and install information boards	• Design, prepare and install information boards
D3 Dissemination of project results		
1-oct-14	• Organize the Open-forum together with expert's workshop • Publication of articles in local and national press • Preparation of papers and technical publications • Production and distribution of technical guides and reports on mitigation measures • Present the project in conferences • Organise and support an International conference	• Support and participate in the Open-forum together with expert's workshop • Publication of articles in local and national press • Publication of articles in the internal metro TV channel (MouTV) • Prepare and distribute informative leaflets • Present the project in conferences
D4 Production of Layman's Report.		
1-jul-16	• Prepare and distribute the Layman´s report	• Assist in the preparation and distribute the Layman´s report
E. MANAGEMENT ACTIONS		

E1 Project Management and Audit.		
1-oct-14	• Nominate the Project management team • Insure coordination between actions and partners • Define quality assurance plan • Nominate an independent auditor • Prepare Inception, Mid-term and Final Reports	• Nominate the Project management team • Support overall coordination and management and specially campaign scheduling • Prepare and deliver administrative and financial documentation for reports and assist in their preparation
E2 Monitoring of the project progress.		
1-oct-14	• Define the indicators of progress • Prepare the 3months coordination meetings • Deliver the summary reviews (every 3 months)	• Define the indicators of progress • Assist the 3 months coordination meetings and support the preparation of summary reviews
E3 Networking with other European projects (including LIFE+).		
1-oct-14	• Organize expert's workshop and Open-forum • Network with other related projects • Organize workshop with other LIFE projects	• Support the organization of project's networking events
E4 After-LIFE+ Communication Plan.		
1-jul-16	• Prepare and disseminate the After-LIFE Communication Plan	

5. IMPROVE AUDIT AND REPORT DOCUMENTS

The management team has identified a clear list of all report and audit points in the lifecycle of the project. This includes:

- The Inception Report (delivery date June 2015)
- The Mid-term Report (delivery date December 2016)
- The Audit of the final financial forms (delivery date March 2018)
- The Final Report (delivery date March 2018)

- Deliverables (as foreseen in the revised proposal)

Project website	(31/12/2014)
One historical PM level and chemical composition database	(31/01/2015)
Information boards	(31/01/2015)
Review on air pollutant sources/suggestion of parameters to test	(31/03/2015)
Minutes of the Open-forum	(30/06/2015)
Minutes of the expert´s workshop	(30/09/2015)
Informative leaflets	(30/06/2016)
Report on main air pollutant sources contribution	(30/06/2016)
Report of mitigation measures in subway systems	(30/09/2016)
Technical guide for mitigation measures	(30/09/2016)
Questionnaires for the public and stakeholders	(31/12/2017)
Report on policy effectiveness of the project	(31/12/2017)
Six publications in journals and conferences	(31/03/2018)
After-Life Communication Plan	(31/03/2018)
Articles in general and trade press	(31/03/2018)
External audit and financial reports	(31/03/2018)
Layman´s report	(31/03/2018)
Proceedings of the International conference	(31/03/2018)
Projects reports	(31/03/2018)
Report on socio-economic impact	(31/03/2018)
Summary reviews on project progress	(31/03/2018)

- Cost centre by all beneficiaries

The cost centre of each beneficiary is supervised by the Administrative and financial manager Cristina de Vasconcelos and the IMPROVE cost centre is updated every three months. The Project Manager will nominate an independent auditor that will verify the financial statements provided to the Commission in the final project report. This Audit will verify the respect of national legislation and accounting rules but will also certify that all costs incurred respect the LIFE+ Common Provisions.

6. IMPROVE INDICATORS OF PROGRESS

The progress of the project will be assessed every three months according to the following indicators of progress described and quantified according to action E2 as follows:

ACTIONS	INDICATORS OF PROGRESS									
START	ACTIVITIES FOLLOW-UP	PLANNING						OUTCOMES available on-line at:	DEADLINE	DATE
A. PREPARATORY ACTIONS										
A1									31/03/2015	
1-oct-14	Construction of 1 historical database of studies examining the methods/models used to identify and resolve the contribution of aerosol emission sources and their major results	31-ene-15						**Deliverable 2** **Historical source contribution**	31-ene-15	
	Elaboration of 1 list of the main parameters identified to be considered in all studies	31-ene-15						**Deliverable 4** **Parameters to test**	31-ene-15	
	Prioritisation of air polution sources in subway systems	31-ene-15						Milestone D Main Air Pollution sources	31-ene-15	
B. IMPLEMENTATION ACTIONS										
B1									30-jun-16	
1-ene-15	Organisation and coordinationof a campaign program	31-ene-15						Campaigns calendar	15-dic-14	31-dic-14
	Presentation of Technical reports on the advance of:	Campaigns		Report 1	Report 2	Report 3				
	- sampling campaigns	sart	end	30-abr-15	31-oct-15	31-mar-16		Report 1 Campaigns	30-abr-15	
	obras (cambio de balasto, traviesas y vias)	20-ene-15	12-mar-15	30%	70%	100%				
	aire acondicionado series 2000-3000	1-abr-15	30-abr-15							
	ventilación	9-jun-15	30-jun-15							
	aire acondicionado serie 5000	1-jun-15	29-jul-15					Report 2 Campaigns	31-oct-15	
	cambio de carril	1-oct-15	30-nov-15							
	zapatas freno	18-ene-16	15-feb-16							
	ventilación	16-feb-16	7-mar-16							
	pantografo grafito	8-mar-15	23-mar-16							
	- chemical analysis	20-ene-15	30-jun-16	60	240	600				
	inorganic									
	PAH in PM filters							Report 3 Campaigns	31-mar-16	
	NO2 samples									
	- results of the chemical analyses	13-mar-15	30-jun-16	10%	40%	100%				
	- statistical analysis,			_	30%	100%				
	- results of source apportionment			_	30%	100%				
	Determination of the impacte of main air pollution sources				31-dic-15			Milestone G Impact of main air pollution	31-dic-15	
	Identification of the main pollutant tracers				31-dic-15			Milestone H Main polution tracers	31-dic-15	
	Construction of 1 database with concentrations of chemical tracers for pollutant sources in subway systems and the impact of each of them on air quality					31-mar-16		Database 2 Chemical tracers concentration	31-mar-16	
	Characterisation of the emission sources						30-jun-16	Milestone K Characterisation emission sources	30-jun-16	
	Report on the overviewing and comparing the full impacts on air quality of each of the selected parameters						30-jun-16	**Deliverable 8** **Report sources contribution**	30-jun-16	
B2. Testing									30-sep-16	
1-abr-15	Organisation and coordination of a campaign program	31-ene-15						Campaigns calendar	1-dic-14	31-dic-14
	Presentation of Technical reports on the advance of:	Campaigns		Report 1	Report 2	Report 3				
	- testing mitigation measures and estimated benefit in metro ambient air quality	sart	end	30-abr-15	31-oct-15	31-mar-16		Report 1 Campaigns	30-abr-15	
	aportación de balasto con agua	1-abr-15	28-abr-15	30%	70%	100%				
	aire acondicionado series 2000-3000	1-abr-15	30-abr-15					Report 2 Campaigns	31-oct-15	
	aportación de balasto con polvo antiresuspensión	29-abr-15	28-may-15							
	ventilación	9-jun-15	30-jun-15							
	aire acondicionado serie 5000	1-jun-15	29-jul-15							
	zapatas freno	18-ene-16	15-feb-16					Report 3 Campaigns	31-mar-16	
	ventilación	16-feb-16	7-mar-16							
	pantografo grafito	8-mar-15	23-mar-16							
	Proposal of mesures for air pollution emission reduction							Milestone I Propose mitigation mesures	31-may-16	
	Testing of mitigation mesures for emission sources							Milestone J Test mitigation mesures	31-may-16	
	Evaluation of mitigation measures							Milestone L Evaluate mitigation mesures	30-sep-16	
	Report on the results of mitigation measures in subway systems						30-sep-16	**Deliverable 9** **Report Mitigation measures**	30-sep-16	
	Preparation of 1Technical Guidance documentation, identifying and comparing effective strategies for reducing the impact of each selected emission source. (The document will quantify the reduction in PM predicted to result from the application of the strategies, and apply a cost-benefit analysis to balance economic costs against potential health benefits.)						30-sep-16	**Deliverable 10** **Technical guide mitigation measures**	30-sep-16	

Action	Start	Task	Timeline	Deliverable / Milestone	Date	
C. MONITORING ACTIONS						
C1					31-mar-18	
	1-abr-15	Defenition of (Management Team) a list of parameters/indicators to assess the impact of the project including: - initial situation regarding PM levels and sources (Action A1) - identification of air pollution sources during the campaigns (Action B1) - contribution of each of the emission sources identified	after completing action B2; 31-dic-16	List 2 Impact indicators	31-dic-16	
		Nomination of of an external committee to evaluate the progress of the project after 2 years	At expert's workshop; 30-jun-15	Commitment of members	30-jun-15	
		Elaboration of 1 Quality plan for the political efectiveness of the project	31-dic-17	**Deliverable 12** **Report policy effectiveness**	31-dic-17	
		Monitor of the impact of the project	During all project's life	Milestone P Monitor the impact of the project	31-mar-18	
C2 Assessment					31-mar-18	
	1-jul-16	Monitor of the awareness of the problem (annually *not every 6 months*) with aquestionnaire to public:	Questionaire 1: 30/09/2015; Questionaire 2: 30/09/2015; Questionaire 3: 30/09/2017	**Deliverable 11** **Questionairs for public / stakh.**	31-dic-17	
		- Number of people participating.	300; 300; 300			
		Incentive other metro systems, or local authorities to apply measures proposed by IMPROVE	With Techenical Guide (Deliverable 3)	List 3 Replicated mesures	31-mar-18	
		Assessment of the socio-economic effect	During all action duration	Milestone M Assess Socio-economic effect	31-dic-17	
		Report on the socio-economic impact of the project	31-mar-18	**Deliverable 18** **Report Socio-economic Impact**	31-mar-18	
D. COMUNICATION AND DISSEMINATION ACTIONS						
D1 A Project					31-mar-18	
	1-oct-14	Design and maintainence of the project website	Launch on dic-2014 and maitained 5 years after the end of the project	**Deliverable 1** **Project website**	31-dic-14	22-dic-14
		Monitor of the number of visitors.	Every 6 months with summary reviews	6 Summary reviews	31-mar-18	
D2 LIFE+					31-mar-18	
	1-oct-14	Prepararion and placing of 10-15 information boards	31-ene-15	**Deliverable 3** **Information boards**	31-ene-15	
		Maintenance of boards in the metro facilities	Monthly checking for any deterioration/vandalism noted on summary reviews	13 Summary reviews	31-mar-18	
D3					31-mar-18	
	1-oct-14	Design and elaboration of 300 leaflets.	30-jun-16	**Deliverable 7** **Informative leaflets**	30-jun-16	
		Publication of articles (4-6) in local/national press (quantification of their readership), during actions B1 & B2 and at beginning/end of project	1 at start project; 2-4 during actions B1 & B2; 1 at end project	**Deliverable 15** **Articles in general/trade press**	31-mar-18	
		Submition of 6 technical papers/presentations in international journals/conferences	During all project's life	**Deliverable 13** **Publications**	31-mar-18	
		Organisation of 1 open-forum Stakeholders (around 80 people) private and public sector	With expert's workshop; 30-jun-15	Milestone E Organize open-forum	30-jun-15	
		Publication of the forum's outcomes on the project's web site.	30-sep-15	**Deliverable 5** **Minutes of the open Forum**	30-sep-15	
		Organisation of of 1 international conference (200 people) with researchers, governmental institutions, public transport assoc. and public.	31-dic-17	**Deliverable 17** **Procedings of the conference**	31-mar-18	
D4 Production					31-mar-18	
	1-jul-16	Production and dissemination of 2.000 copies to the stakeholders	31-mar-18	**Deliverable 16** **Layman's Report**	31-mar-18	

E. MANAGEMENT ACTIONS												
E1 Project											**31-mar-18**	
1-oct-14	Nomination of the Project Management Team	31-oct-14								Milestone A Project management team	31-oct-14	28-oct-14
	Elaboration of the Quality assurance plan	30-nov-14								Milestone C Quality assurance plan	30-nov-14	28-nov-14
	Submission of the Inception Report			30-jun-15						Inception Report	30-jun-15	
	Submission of the Mid-term Report					30-jun-16				Mid-term Report	31-dic-16	
	Submission of the Final Report								30-jun-18	Final Report	30-jun-18	
E2 Monitoring											**31-mar-18**	
1-oct-14	Revision the progress of the project, according to it's indicators .	Every 3 months								Milestone B Indicators of Progress	30-nov-14	28-nov-14
	Meeting between partners	Every 3months reported on summay reviews								**Deliverable 19** **Summary reviews**	31-mar-18	
	Implementation of corrective recommendations after each meeting if necessary	Every 3months reported on summay reviews										
E3 Networking											**31-mar-18**	
1-oct-14	Organisation of 1 expert group workshop	With open-forum		30-jun-15						**Deliverable 6** **Minutes of the expert's workshop**	30-sep-15	
	Organisation of 1 workshop with other european projects					30-jun-16				Milestone F Workshop with LIFE+ projects	30-jun-16	
	Participation in other LIFE+ project's meetings	During all project's life								Presentations of IMPROVE	31-mar-18	
E4 After-LIFE+											**31-mar-18**	
1-jul-16	Preparation of the After-Life communication plan								31-mar-18	**Deliverable 14** **After-Life communication plan**	31-mar-18	

7. IMPROVE MEETINGS AND COMUNICATION

The project management team will meet every three months. The frequency of such meetings is feasible because both partners are based in the same city, and at a close distance from each other. In addition, short management meetings of both beneficiaries will be organized in parallel with IMPROVE public events or any other event (conference, seminar, workshop) that IMPROVE partners participate. The group of the coordinating beneficiary will meet monthly to discuss and report the progress of the projects activities.

In parallel the project manager Teresa Moreno and the Administrative and financial manager Cristina de Vasconcelos meet to supervise the overall project progress on a regular basis (every 3 months) and prepares summary reviews with the status of the implementation and dissemination activities, as well as the deliverables completion.

Contact with the EC takes place through Ms Rosana Asensio from the monitoring team ASTRALE (IDOM).