



LIFE Project Number
LIFE12 ENV/IT/000614

Inception Report
Covering the project activities from 01/01/2014 to 31/08/2014

Reporting Date
30/09/2014

LIFE+ PROJECT NAME or Acronym
**Monitoring air pollution effects on children
for supporting Public Health Policy
MAPEC_LIFE**

Data Project

Project location	Italy (Brescia, Lecce, Perugia, Pisa, Torino)
Project start date:	01/01/2014
Project end date:	31/12/2016 Extension date: <dd/mm/yyyy >
Total budget	€ 2,246,502.00
EC contribution:	€ 1,112,189.00
(%) of eligible costs	50%

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1. List of abbreviations

UNIBS	University of Brescia
COMUNE BS	Comune di Brescia
CSMT	CSMT Gestione s.c.a.r.l.
UNIPG	University of Perugia
UNIPI	University of Pisa – Department of Biology
UNISALENTO	University of Salento – Department of Biological and Environmental Sciences and Technologies
UNITO	University of Torino
EC	European Commission

2. Executive summary

2.1 General progress

The project started on January 2014 with the preparatory actions (A1), the monitoring of the impact of the project actions (C1), the dissemination activities (D1) and the management of the project (E1).

The management team was set up, including the project manager, the project manager assistant and the staff of UNIBS. Each component of the team was assigned to a specific task of the project in order to split the job and give to the partners a reference person for each task. The project manager and his assistant constantly coordinate the team and monitor the project progress during the whole period and in particular during periodic meetings.

A tight, continuative and effective communication framework was set up between the management team and the partners.

The activity progress made during the reporting period is summarized below:

- the questionnaire about environmental exposure and other variables was prepared and validated (action A1.1);
- the local Ethic Committees of all recruiting units approved the project (action A1.2);
- all the laboratory protocols were defined (action A1.3);
- school authorities in the 5 towns were contacted. 17 schools were identified and accepted to participate in the study (action A1.4);
- a system useful to assign a unique code to each subject enrolled in the study was developed and the structure of the database for inputting all the study data was designed (action B4.1);
- monitoring plan and tools were developed (action C1.1);
- monthly reports were regularly sent to external monitor (action C1.2);
- the first visit of the external monitor was held (action C1.3);
- internal monitoring of technical and dissemination activities, output and impact progress and financial situation was executed periodically (action C1.4);
- the dissemination plan was developed (action D1.1);
- the project image has been defined, with the development of a common graphic identity in all the dissemination products: the logo of the project, the notice board, the brochures and the website (action D1.2);
- a plan for the publication was prepared. The first scientific article of the project was accepted for publication in the journal BMJ Open (action D1.3);
- the first newsletter was sent to the stakeholders and to contacts registered on the project website (action D1.5);
- press conferences for the beginning of the project were held in the 5 towns (action D1.6);
- the educational package materials were realized and tested on teachers. Meetings with health and institutional authorities to be involved in the project will be held (action D1.7);
- Brescia and Lecce local workshops took place on 26/05/2014 and 24/06/2014, respectively. The next local workshops will be held in Pisa on 25/09/2014, Torino on 14/10/2014 and Perugia on 17/10/2014 (action D1.8);

- first contacts with other Life project were established (action D1.10);
- the project has been presented to the PREXII Conference, during the Acept-Air Conference (Skiathos, Greece, 30/06-04/07/2014) (action D1.11);
- the dissemination group was constituted (action E1.1);
- two project meetings were held in Torino (31/01/2014) and Brescia (28/05/2014) (action E1.1);
- the partnership agreement was signed by all partners (action E1.1).

During the reporting period, all the expected deliverables and milestones were achieved:

Name of the deliverable	Number of the associated action	Deadline	Status	Annex
Notice boards	D1	28/02/2014	Completed	7.2.1/2
Monitoring plan	C1	30/06/2014	Completed	7.2.3
Communication plan	D1	30/06/2014	Completed	7.2.4
Project website	D1	30/06/2014	Completed	-
Submission of 2 scientific articles to specialized journals	D1	31/12/2014	Ongoing	7.2.5

Name of the milestone	Number of the associated action	Deadline	Status	Annex
Environmental and biomonitoring protocols are defined	A1	30/06/2014	Completed	7.3.1
Ethics Committees' approval	A1	31/08/2014	Completed	7.3.2

2.2 Assessment as to whether the project objectives and work plan are still viable

The project objectives are still viable and the general work plan is not changed. The structure of the partnership was confirmed.

All the actions scheduled in the reporting period started on time. All the expected deliverables, milestones and results were achieved on time, some of them even in advance. In particular, according to the work plan, Actions A1, B4, C1, D1 and E1 started regularly, while Actions B1, B2, B3, C2 and D2 don't start yet.

2.3 Problems encountered.

At the moment, the project did not encounter problems or difficulties.

From a technical point of view, there aren't any significant problems that are affecting or could affect the realization of one or more actions or the achievement of project objectives. Financially, the cost of individual actions is closely consistent with the preventive budget. The only authorizations needed for performing the study, the approval of the local Ethic Committees, were achieved in advance in respect to the scheduled deadline.

The only issue was due to the fact that the beginning of the project (January 2014) coincided with the passage of university administration between two type of accountability; this process delayed the transition of the first pre-financing payment from the coordinating to the associated beneficiaries, which nevertheless was transferred within the first two months of the project (this aspect was, however, included in the partnership agreement, art. 4.4).

3. Administrative part

3.1 Description of project management

First of all, a project manager assistant was appointed and assigned full time to the project. The management team was set up, including the project manager (Prof. Umberto Gelatti), the project manager assistant (Dr. Elisabetta Ceretti) and the staff of UNIBS. Each component of the team was assigned to a specific task of the project in order to split the job and give to the partners a reference person for each task. The project manager and his assistant coordinate the team and monitor the project progress during all period of the project.

Regarding the administrative-financial project activities, the project manager and the UNIBS staff are supported internally, by a person from the administrative department of the University (Dr. Michela Pilot),

and also externally by the subcontractor Gruppo Impresa Finance Srl, specialized in administrative-financial project management. This external company has been involved in particular in supporting the collection and revision of the documents required for project financial statement and in the smooth preparation of the financial-administrative part of all report to the European Commission.

The project manager and his assistant participated in the kick off meeting of Italian Life+ 2012 projects, held in Rome on 8th November 2013.

A tight, continuative and effective communication framework was set up between the management team and the partners. Designing the project website, a back-end area restricted to project partners was created. This area includes project official reports and working documents and a timeline reporting all the project deadlines.

The partnership agreement was prepared by the coordinating beneficiary, shared between partners and signed on 14th February 2014 (see point 3.3 and Annex 7.1).

Beyond the Executive Board, which consists of all Local Project Leaders, the project manager and the project manager assistant, two additional subgroups were set up:

- the Dissemination Group, which includes a representative from all partners and the leader of the dissemination action (Prof. Annalaura Carducci from UNIPI), is responsible for all the dissemination/communication aspects of the project. In the reporting period, the group collaborated for the development of the project image, for the definition of the contents of press releases, project workshops, articles and newsletter and for the preparation of the Communication plan (Annex 7.2.4);
- the Laboratory Group, which includes at least a representative from all recruiting partners (UNIBS, UNIPG, UNIPI, UNISALENTO and UNITO), is responsible of all the aspects related to children recruitment, biological and environmental sampling, lab test performing and data collection. In the reporting period, the Lab Group prepared and validated the questionnaire for children's parents, defined the lab protocols for all the tests which have to be performed and developed a system for generating an alphanumeric code to identify biological samples and questionnaires.

Two project meetings took place during the reporting period: the first in Torino on 31 January 2014 and the second in Brescia on 28 May 2014. In the same days, parallel meetings of the dissemination and laboratory groups were held too.

The coordinating beneficiary and the subcontractor Gruppo Impresa Finance Srl developed a system for monitoring the cost situation and the advancement of technical and dissemination activities. These are Excel tools that the project manager asked associated beneficiaries to update every three months.

On the other hand, the associated beneficiary CSMT (leader of the monitoring action C1), with the support of the project manager assistant and the contribution of all partners, created a system of tools for monitoring project outputs and impacts (every three months), project adherence to the objectives and quality of the results. All these aspects were described in the Monitoring plan (Annex 7.2.3).

The project manager and the project manager assistant created a productive dialogue with the external monitor, Dr. Mariateresa Calabrese of the Astrale GEIE – Timesis Monitoring Team, who was often consulted for better understanding Life procedures and to whom monthly reports were sent regularly. The first visit of the external monitor, held in Brescia on 27 May 2014, gave a positive feedback (see EC letter of 19/06/2014).

Regarding the involvement of stakeholders in the project, during the reporting period some institutional stakeholders were invited to participate in project dissemination events and some of them took part in local workshops: municipalities, local health authorities, regional agencies for the environmental protection, school authorities, environmental organizations and citizens' groups.

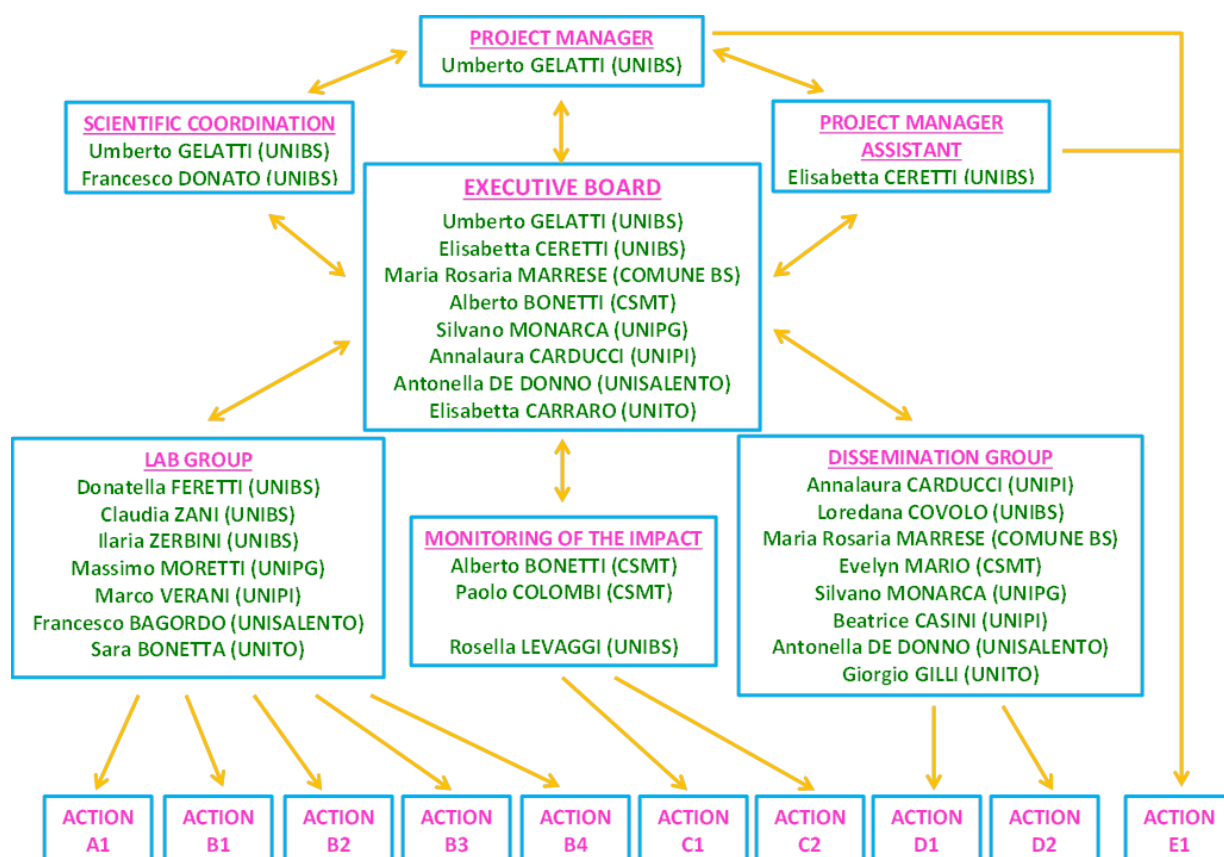
All project management activities were conducted considering the principle of green procurement procedures, organizing conference calls rather than physical meetings, when possible, using transport with the lowest carbon footprint for project journeys, reducing the use of resources to a minimum, using as little paper and consumable materials as possible or using recycled paper and low impact materials when needed, and following the good practice of selective waste collection at all times.

3.2 Organigramme of the project team and the project management structure

The structure of the project team is described in the following table:

Partner name	Partner role	Person name	Person role
UNIBS	Coordinating beneficiary	Umberto GELATTI	Project manager
		Francesco DONATO	Scientific manager
		Elisabetta CERETTI	Project manager assistant
		Rosella LEVAGGI	Socio-economical assessment
		Giovanna MAZZOLENI	Researcher
		Donatella FERETTI	Researcher
		Claudia ZANI	Researcher
		Rosa Maria LIMINA	Researcher
		Loredana COVOLO	Researcher
		Ilaria ZERBINI	Laboratory technician
Andrea FESTA	Computer technician		
COMUNE BS	Associated beneficiary	Maria Rosaria MARRESE	Local project leader
		Silvia BONIZZONI	Management – coordination
		Camilla FURIA	Employee - financial
CSMT	Associated beneficiary	Alberto BONETTI	Local project leader
		Paolo COLOMBI	Monitoring and evaluation
		Evelyn MARIO	Communication and dissemination
		Daniela LINI	Monitoring and evaluation
		Roberta CODENOTTI	Communication and dissemination
		Francesco BRAGA	Internal peer-review
UNIPG	Associated beneficiary	Silvano MONARCA	Local project leader
		Massimo MORETTI	Researcher
		Milena VILLARINI	Researcher
		Cristina FATIGONI	Laboratory technician
UNIFI	Associated beneficiary	Annalaura CARDUCCI	Local project leader
		Beatrice CASINI	Researcher
		Marco VERANI	Researcher
UNISALENTO	Associated beneficiary	Maria Antonella DE DONNO	Local project leader
		Marcello GUIDO	Researcher
		Tiziano VERRI	Researcher
		Francesco BAGORDO	Laboratory technician
UNITO	Associated beneficiary	Elisabetta CARRARO	Local project leader
		Giorgio GILLI	Local project leader assistant
		Tiziana SCHILIRÒ	Researcher
		Sara Bonetta	Researcher
		Cristina PIGNATA	Laboratory technician

The project management structure is described in the figure below:



3.3 Partnership agreements status (incl. date of signature) and key content

The partnership agreement was prepared by the coordinating beneficiary in accordance with the guidelines of the Life+ Programme, shared between partners and signed on 14th February 2014 (Annex 7.1). Its key contents are summarized below:

- Art. 4.4. “After receiving a payment from the Commission, the coordinating beneficiary shall transfer the amount due to each associated beneficiary within one month from receipt of the payment. Only in the case of the first pre-financing payment, which has been received by the coordinating beneficiary before the starting date of the project, the coordinating beneficiary will transfer the amount due to each associated beneficiary within two months from the beginning of the project.”
- Art. 13.11. “A cautionary deduction of 7% on the amounts received as first pre-financing payment and mid-term pre-financing payment by the Commission will be applied on pre-financing payment and mid-term pre-financing payment of the associated beneficiaries by the coordinating beneficiary, in order to narrow the risks deriving from a possible bad performance of an associated beneficiary. If no such circumstances will occur, the retained amount will be released and duly distributed to the associated beneficiaries together with the final payment.”
- Art. 6.2. “The associated beneficiaries shall send copies of all the supporting documents (accounting, dissemination, timesheets and others) to the coordinating beneficiary every 3 months, in accordance with the Monitoring Plan.”
- Art. 10.9. “Internal progress reports: the associated beneficiaries will provide the coordinating beneficiary with an internal progress report every 3 months (quarterly), as requested by the coordinating beneficiary. The internal progress reports will consist of an activity report, an update of the cost situation and the copies of the related supporting documents (dissemination, accounting, timesheets and others).”

4. Technical part

Project background. The problem of air pollution is well-known and its health effects have been largely investigated. Epidemiological studies attribute the most severe health effects from air pollution to particulate matter, which has been associated with cardiovascular diseases, lung cancer and other chronic diseases.

The European Environmental Agency calculated that, in 2011, 88% of the European urban population was exposed to PM10 concentrations exceeding the WHO Air Quality Guidelines value and this is particularly relevant since, as it declared by WHO, scientific evidence does not suggest a threshold behind which PM exposure has no adverse effects.

Some aspects about effects of air pollution exposure are important to underline:

- each increase in PM10 level corresponds to an increase in respiratory and cardiovascular diseases, obstetrical-gynaecological diseases (preterm delivery, low weight at birth) and daily mortality for every cause;

- worldwide, 3.1 million deaths and almost 3% of all DALYs (Disability Adjusted Life Years) could be attributed to exposure to ambient PM2.5;

- in the European Union, average life expectancy is estimated to be 8.6 months lower due to exposure to PM2.5 resulting from human activities;

- in October 2013, the International Agency for Research on Cancer (IARC) has classified outdoor air pollution and particulate matter as carcinogenic to humans (Group 1).

Among whole population, children are at a higher risk of suffering the health consequences of airborne chemicals, for various reasons. First, children are more exposed because they have higher levels of physical activity, spend more time outside and have a higher air intake than adults. Second, children are more vulnerable to the adverse effects of air pollution due to their small body size, fast growth rate and relatively immature organs (lungs in particular), body functions, immune system and cell repair mechanisms. Moreover, some data suggest that genetic damage occurring early in life can increase the risk of carcinogenesis in adulthood.

Recently, Ceretti et al. (2014) found a weak, but significant, association between MN frequency in buccal cells of children living in Brescia (northern Italy) and concentration of air pollutants, such as PM10, PM2.5 and NO₂. Moreover, MN level in these children was higher than usually found among children living in areas with low or medium-high levels of air pollution.

The main aims of the project are 1) to evaluate the association between air pollutant levels and early biological effects in children, and 2) to propose a model for estimating the global risk of early biological effects due to air pollutants and other factors in children.

4.1 Actions

The project progress are described below, following the structure of the project proposal.

4.1.1 Action A1 – Preparatory action

Task A1.1. Questionnaire about environmental exposures and other variables

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
A1.1 Questionnaire about environmental exposures and other variables	01/01/2014	01/01/2014	30/06/2014	30/06/2014	Concluded

In order to evaluate the association between different environmental exposures, feeding and other variables and biomarkers, a questionnaire to collect information on the habits of the child's life was created (Annex 7.5.1). It includes questions about indoor and outdoor exposure at school and home, health status of children, their physical activity, and the frequency of consumption of food in the main meals of the day, for a total of 116 questions. This questionnaire will be administered to the parents of participating children, who can choose paper or web-based compilation.

A pilot phase to evaluate feasibility of the questionnaire was conducted on 53 parents of children aged 6-8 years, in the five centres involved in the project. Its reliability, according to test re-test method, was

evaluated enrolling 156 parents (in the five towns) who had not participated in the feasibility study. They had to complete the questionnaire twice at an interval of one month. The agreement between the two interviews was assessed by computing Cohen's Kappa statistic (K) for dichotomous variables. An *ad hoc* software, based on the food composition database for epidemiological studies in Italy, was created and used to calculate, for each subject, the energy intake and the macro- and micronutrients in the two questionnaire repetitions and the results were compared using the test of paired data.

In the feasibility study, only 45 out of 53 questionnaires were completed (8 subjects were excluded). 93% of questions were clear for the content and 86% of the subjects said that they had no difficulty in answering the questions. 55.6% completed the questionnaire in 10-20 minutes, and 24.4% in 20-40 minutes.

In the reliability study, 24 subjects were lost (15.4%). The analysis was conducted on 132 completed questionnaires. The percentage of agreement between the answers given in the 1st and 2nd questionnaire repetition was generally high, above 70%, with kappa greater than 0.6.

In the frequency food consumption responses, the rates of agreement were reduced, probably due to the high number of categories of consumption frequency. However, the analysis conducted on caloric intake, carbohydrate, total lipids and different macronutrients showed a good agreement between the 1st and the 2nd survey.

On the basis of the results obtained, we concluded that the questionnaire created for the study is a valid tool for the collection of data about variables which could be possible confounding factors in the evaluation of the relationship between air pollution and early biological effects in children.

Task A1.2. Approval by local Ethic Committees

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
A1.2 Approval by local Ethic Committees	01/04/2014	01/01/2014	31/08/2014	01/07/2014	Concluded

Since the study involved children, the approval of Ethic Committee was mandatory. For this project, in which five recruiting towns were involved, five approvals of local Ethic Committees were needed.

All the documents required for the submission of the project to the Ethic Committees were prepared by UNIBS and shared between all recruiting partners. Particular attention was dedicated to the preparation of the informed consent for approval of children's parents and to the assent form for approval of children.

The first submission was to Ethic Committee of coordinating beneficiary (UNIBS), which approved the project on 14/01/2014 with minor revisions. Required modifications were already made and the amendment was approved by the same Committee on 01/07/2014.

Meantime, the other recruiting partners submitted all the documents, including the Brescia Ethic Committee approval, to their own Committees, which approved the study with no revisions (approval date: 25/02/2014 for UNIPI, 27/03/2014 for UNITO, 03/04/2014 for UNISALENTO and 09/05/2014 for UNIPG).

All the approvals are attached to this report (Annex 7.3.2). After Ethic Committees' approval, all the document for children recruitment were uploaded in the back-end area of the website.

The task started on 01/01/2014, in advance on the foreseen start-date (01/04/2014), since we were afraid by the authorization process, usually very long-lasting. On the contrary, the study was approved rapidly and without any problem. The foreseen end-date was, therefore, anticipated to 01/07/2014 (rather than 31/08/2014).

Task A1.3. Standardization of laboratory methods

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
A1.3 Standardization of laboratory methods	01/01/2014	01/01/2014	30/06/2014	30/06/2014	Concluded

The essential part of MAPEC project is constituted by laboratory activities: on one hand, environmental PM0.5 samples will be collected near schools involved in the study and analysed for PAH (polycyclic aromatic hydrocarbon) and nitro-PAH concentration, for genotoxic properties (Ames test on bacterial cells, micronucleus and comet tests on human pulmonary cells) and for toxic potential (on human pulmonary cells); on the other hand, buccal cells of children will be collected and the presence of DNA damage will be detected (micronucleus and comet tests).

The lab group, which was set up to follow all laboratory aspects, as mentioned before (paragraph 3.1), defined the protocol of all the tests which will be performed in the study. Especially for the collection of buccal cells of children and the assays on them, which will be carried out by all recruiting partners, a standardization of the protocols was done between the partners in order to developed common protocols. An inter-laboratory calibration phase for the comet assay will be performed in September, when the subcontractor for the analysis of comet slides will be selected.

Definitive protocols of all laboratory tests were uploaded in the back-end area of the website and are attached to this report (Annex 7.3.1)

Task A1.4. Choice of schools

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
A1.4 Choice of schools	01/03/2014	01/03/2014	31/12/2014		On time

In the MAPEC study, children will be recruited in five Italian towns: Brescia, Lecce, Perugia, Pisa and Torino. The recruiting will be performed in primary schools, in the playground of which environmental samples will be collected too.

All recruiting partners contacted school authorities of their own town, illustrating the project. The school authorities helped us to identify schools which may participate in the project. Then, the researchers met the managers of schools, which accepted to participate in the study, with the formal support of the school councils. A total of 17 schools were enrolled in the study: 4 schools in Brescia, 3 in Lecce, 4 in Perugia, 3 in Pisa and 3 in Torino.

When the schools will open for the beginning of the new school year in September, teachers, school personnel and children's parents will be involved in meetings to explain the project and promote participation in the study. The recruitment of children will start in October-November 2014, when the PM levels start to increase.

4.1.2 Action B1 – Recruitment of children. Start scheduled for M10 (01/10/2014).

4.1.3 Action B2 – Environmental sampling. Start scheduled for M10 (01/10/2014).

4.1.4 Action B3 – Biological sampling. Start scheduled for M10 (01/10/2014).

4.1.5 Action B4 – Development of a global risk model and recommendation for health policy

Task B4.1. Data management

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
B4.1 Data management	01/07/2014	01/07/2014	31/07/2016		On time

During the project, a great amount of data about children and their exposure will be generated: as regard children, we will collect information about their health status, environmental exposure and lifestyle by means of the questionnaire filled in by their parents and we will detect their DNA damage level in buccal mucosa cells using two different tests (micronucleus and comet tests); in the same time, data about air pollution exposure will be collected sampling PM0.5 fraction of urban air near the schools involved in the study and analysing PM0.5 extracts for their chemical and toxicological properties, and retrieving data from the Regional Agencies for Environmental Protection about the general quality of the air in the five towns. For the collection and the management of all these data, we need a system useful to assign a

unique code to each subject enrolled in the study and to connect all the data belonging to the same subject for the analysis of the results.

For this aim, we created a system that: 1) generates an alphanumeric code of 6 letters, randomly selected, which identify univocally both biological samples and questionnaires; 2) attributes a code to each environmental sample; 3) attributes a code to each slide of each test; 4) links together the data belonging to one subject, allowing the statistical analysis of the correlation between the results of the various tests. As about point 1, the system has been already tested, with a positive feedback, during the questionnaire feasibility and reliability study (task A1.1). A first draft of the databases needed for inputting all the study data was also developed.

All the data collected will be treated in accordance with the legislation on protection of personal data (D.LGS 196/03) and used only for purposes related to the project.

4.1.6 Action C1 – Monitoring the impact of the project actions

Task C1.1. Development of monitoring plan and tools

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
C1.1 Development of monitoring plan and tools	01/01/2014	01/01/2014	30/06/2014	30/06/2014	Concluded

All the monitoring tools listed in the agreement were developed within the first six months of the project to monitor the project at different levels:

- excel tool for monitoring of outputs and impacts;
- excel tool for cost monitoring;
- excel tool for monitoring of technical and dissemination activities;
- tools for quality monitoring.

The Monitoring plan (Annex 7.2.3) is the only deliverable of the project for the action C.1 and contains the objectives, criteria, performance indicators and methods used for the evaluation of the project performance as well as the detailed description of monitoring tools. The document was completed on 26/06/2014.

Task C1.2. Monthly updates for the Monitor

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
C1.2 Monthly updates for the Monitor	01/01/2014	01/01/2014	31/12/2016		On time

The external monitor, Dr. Mariateresa Calabrese of the Astrale GEIE – Timesis Monitoring Team, was kept constantly updated on the project progress by sending a technical report on the status of each project action by the end of each project month.

Task C1.3. External monitoring

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
C1.3 External monitoring	01/01/2014	01/01/2014	31/12/2016		On time

The first visit of the external monitor was held in Brescia on 27 May 2014. All the partners participated in the meeting, during which action leaders described the project progress to the monitor. On 19/06/2014, EC officer sent to the coordinating beneficiary a positive feedback about the visit and a list of issues that should be addressed in this report. The answer to these requests are in the paragraph 6.

Task C1.4. Internal monitoring

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
C1.4 Internal monitoring	01/01/2014	01/01/2014	31/12/2016		On time

The project was constantly monitored by implementing the procedures defined in the monitoring plan. CSMT, leader of the monitoring action C1, asked partners to fill-in the excel tool for monitoring of outputs and impacts every three months, while the coordinating beneficiary asked associated beneficiaries to send the reports about technical and dissemination activities and cost situation twice (as described in the paragraph 4.1.10). Moreover, in occasion of the second project meeting (Brescia, 28/05/2014), CSMT asked partners to fill-in questionnaires for the evaluation of the project management as well as the efficacy of cooperation among partners and action leaders.

All the data collected confirmed that, during the reporting period, the project did not encounter problems or difficulties.

4.1.7 Action C2 – Evaluation of the socio-economic impact on the population and the local economy of the project. Start scheduled for M28 (01/04/2016).

4.1.8 Action D1 – Dissemination of information and results

Task D1.1. Development of dissemination plan

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
D1.1 Development of dissemination plan	01/01/2014	01/01/2014	30/06/2014	30/06/2014	Concluded

The Communication plan (Annex 7.2.4) was developed with the aim of raising awareness and interest on the MAPEC project among the stakeholders such as the scientific community, the Governmental Institutions and the population.

The project identity is defined by an image (logo and layout: see task D1.2.1) coordinated on every dissemination tool and activity.

Tools for dissemination are: the website, designed to reach different targets, using specific languages, social networks, newsletters, printed materials, as notice board and brochures, articles published in scientific journals and articles and videos for non-scientific channels (journals, web, television, radio). For the target of schoolchildren an educational package has been produced.

The content of this dissemination plan is also an operating procedure for the project beneficiaries for the management of the communication and dissemination activities.

Task D1.2. Coordinated project image

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
D1.2 Coordinated project image	01/01/2014	01/01/2014	30/06/2014	30/06/2014	Concluded

A common graphic identity was applied to all dissemination tools and activities for better visibility and recognition as well as branding of the project.

Task D1.2.1 Project website

An interactive and accessible project website (<http://www.mapec-life.eu>) was developed by UNIFI and made available in a preliminary form since February 2014, as a complement of the Notice board. The complete website was visible on 30th of June 2014.

The website was developed according to simple design principles using standards-compliant semantic mark-up to maximize its accessibility to screen readers, as well as other applications. The process of developing new features includes frequent usability testing with real users. These design principles and iterative testing will continue as we seek to integrate the contents of the site with the research findings.

The website's address mapec-life.eu has been reserved by the project and will be referred to in all MAPEC public documents and presentations.

The website serves as a portal allowing a wider public and interest groups to learn about the project existence and goals. Free access is guaranteed to public documents of the project, meetings and workshop announcements, links to selected sites, information brochures, leaflets, notice board, press packs, press releases and layman's report, which are easily available for download. The specific section addressed to schools, that contains educational packages and educative games for children to emphasize the importance of healthy lifestyles (see Task D1.7), is accessible with registration. It is also possible for visitors to register to a public mailing-list, in order to receive the newsletter from the project.

The website contains three different areas, Public, Media/Institutions and Scientific, addressed to different target audience. These three areas have similar subsections and menu, including project description, methodology and results, but are written in languages specific for each target audience. Besides the similar subsections, each area contains specific banners: "educational package" in the Public area; "press communication package" in the Media/Institution area, and "scientific reports" in the Scientific area.

Designing the project website, a back-end area restricted to project partners was created (<http://areariservata.mapec-life.eu>). This area includes project official reports and working documents and a timeline reporting all the project deadlines.

On 31/08/2014, the accesses to the website were 971. This number is increasing in September with the beginning of the schools and of the child recruitment (on 08/09/2014 it was 1034). In the same time the registrations were 20 to the newsletter and 12 to the educational package, but these numbers are expected to increase with the beginning of the recruitment phase.

Task D1.2.2 Project Logo

A project logo (Annex 7.5.2) was created and approved by the MAPEC dissemination board.

The logo represented the stick figure of a child looking exultant, and at the same time the shape of DNA. The head looked like the sun, symbol of nature. The logo also included the name of the project. Colours and fonts were chosen to suggest toys and to be brilliant and easy to remember.

The MAPEC logo was used for any (internal or external) deliverable, report and dissemination tool. Moreover, all dissemination tools and activities were referred to the name and identification code of the project, to the project's website URL and to the graphic elements approved by the MAPEC dissemination board.

Common/similar layouts have been adopted for MAPEC Dissemination materials and documents (including leaflets, posters and website, Word documents and PowerPoint presentations).

They have been made available to all the project beneficiaries by the project coordinator at the beginning of the project activities.

The MAPEC project is led by a group of seven beneficiaries, a coordinating beneficiary (University of Brescia) and six associated beneficiaries (University of Pisa, University of Torino, University of Salento, University of Perugia, CSMT Gestione, Municipality of Brescia). Each of the beneficiaries has its own logo. The whole set of logos, all together, was used for any (internal or external) deliverable, report and dissemination tool.

As specifically required by the common provisions of the European Commission, the LIFE logo was used for any (internal or external) deliverable, report and dissemination tool. Moreover, Life gadgets useful in dissemination events (bookmarks, pencils, post-its) were requested to EC officers, who sent them to each partner.

Task D1.2.3 Notice board

Notice boards describing the project, with LIFE and MAPEC logos, have been displayed by each partner in strategic places accessible and visible to the public (Annexes 7.2.1 and 7.2.2). The notice board support has been chosen to be transported in the location of public events organized by the project partners (local and national workshops).

Task D1.2.4 Brochures

Project brochures have been prepared, containing the most important project information for dissemination purposes. Besides traditional brochures (Annex 7.5.3), we designed a different “origami” brochures to be more attractive for the involved people: a seagull for the Italian version (Annex 7.5.4) and a swan for the English one (this was not printed, but it is visible on the website, public section) (Annex 7.5.5).

For the production of every printed material, recycled paper with specific certification has been used. During the reporting period, about 150 brochures (in Italian) have been distributed in the local workshops and in every meeting with institutions.

Task D1.2.5 Social networks

To reach the most wide audience for the dissemination of the projects aims, methods and results, to create a fan base and audience profiled, to generate visits to the site and to create participation around the project, the following social networks are used:

- Facebook
- Twitter
- Google Plus
- Youtube

In particular, Facebook and Twitter are mainly used since these cover almost all of the target audience. The period of activity of them will be June 2014 - December 2016 and the main target are: general population, families, schools, institutions and media.

Subscribers to the Facebook page are about 135 people while the Twitter page has 19 followers, but these numbers are expected to increase with the beginning of the recruitment phase.

Task D1.3. Articles

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.3 Articles	01/01/2014	01/01/2014	31/12/2016		On time

The project protocol, design and methodology were described in a scientific article, “Monitoring Air Pollution Effects on Children for supporting public health policy: the protocol of the prospective cohort MAPEC study”, published in BMJ Open journal (Annex 7.2.5). This activity had mainly a scientific target, although it could be of interest for the institutions. Moreover, the scientific journal selected for this publication (BMJ Open, IF 2.063) is an ISI “open access” journal and this will allow a great level of dissemination of the article.

Non-scientific articles in the most important local and national newspapers (Annex 7.5.6), interventions for radio and television were aimed at reaching out to and creating a bridge between scientific and public audiences.

Task D1.4. Meetings with decision makers and institution

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.4 Meetings with decision makers and institution	01/01/2014	01/01/2014	31/12/2016		On time

Since the start of the project, numerous meetings (besides workshops and press conferences) were organized with representative of different institutions and decision makers: these meetings were aimed not only to present the project, but also to predispose future policy actions following the project results. The involved institutions were: municipalities of cities involved in the project (major, assessors to school, health and environment), school authorities, local agencies for environmental protection, health system representatives, etc.

Task D1.5. MAPEC newsletter

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.5 MAPEC newsletter	01/01/2014	01/01/2014	31/12/2016		On time

Every 6 months, a newsletter describing the project evolution and reporting other significant news will be sent to a mailing list of stakeholders and people registered on the website. The first newsletter (Annex 7.5.7) was sent in June 2014 to a mailing list of 100 addresses.

Task D1.6. Press conferences

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.6 Press conferences	01/01/2014	01/01/2014	31/12/2016		On time

The project was presented to the press during five local press conferences organized for the beginning of the project.

In Brescia, the press conference, hosted by University of Brescia, Brescia Municipality and CSMT Gestione s.c.a.r.l., took place on 29/01/2014. During the conference, the three institution spoke about the project and its objectives: prof. Gelatti (the project manager), prof. Donato and prof. Memo (Deputy Chancellor for research, internationalization and higher education) for the University of Brescia, Avv. Scalvini (City Councilor for the family policies and health) for the Brescia Municipality and prof. Pietrabissa (Scientific Director) for CSMT. After the conference, 7 articles were published on local, national and online newspapers. Prof. Gelatti was interviewed by TV Brescia and Teletutto television networks.

On 11/03/2014, the press conference was held in Torino with the participation of prof. Carraro (local project leader), prof. Gilli and prof. Ajani (Chancellor of University of Torino). The news was published on 30 local, national and online newspapers. Prof. Carraro and Prof. Gilli were interviewed by the local network Tele City 7 Gold.

On 12/03/2014, the press conference was held in Pisa, with the participation of prof. Carducci (local project leader), prof. R. Lorenzi (Director of the Department of Biology), prof. Chiofalo (City Councilor to the social educational and school policies), dr. Felling (Society of Health), dr. De Franco (Department of Prevention ASL5) and prof. Bianchi (National Research Center). The news was published on 9 local, national and online newspapers. Prof. Carducci was interviewed by the local network, Tele Granducato.

At the press conference in Lecce, held on 25/03/2014, prof. De Donno (local project leader), prof. Zara (Chancellor of the University of Salento), prof. De Bellis (Director of the Department of Biological and Environmental Sciences and Technologies), dr. Guido (City Councilor to the environment) were present. The news was published on 13 local, national and online newspapers. Prof. De Donno was interviewed by Tele Norba and Antennasud television networks.

In the same day (25/03/2014), the Perugia press conference took place, with the participation of prof. Monarca (local project leader), prof. Moretti and prof. Monaco (delegated to the dissemination of scientific culture of the Regional Directorate of Education Office of Umbria). Prof Monarca and prof. Moretti were interviewed by RAI 3 Region television network. The news appeared on 5 local and national newspapers.

All the articles, videos, photos and documents about press conferences are annexed to this report (Annexes 7.5.6, 7.5.8 and 7.5.9).

Task D1.7. Educational package

Task	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
D1.7 Educational package	01/01/2014	01/01/2014	30/04/2014	20/05/2014	Concluded

The children recruitment is an important occasion to provide the most important information about air pollution and its effects on health at microscopic and cellular levels to teachers, children and their families and to sensitize them to healthy lifestyles.

In this regard, an educational package has been designed as a teaching help: it contains lesson plans and videogames facing the main topics at the basis of the project: air pollution, health effects, cellular effects, environmental policies and healthy lifestyles.

The package, tested on teachers for understandability, usability and usefulness and on children for understandability and usability, is now available for download by registration (<http://gioco.mapec-life.eu/>).

Since the 30th of June, when the tool was made available, 12 registrations were collected. This number obviously will increase with the start of school activities.

Task D1.8. MAPEC workshops

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.8 MAPEC workshops	01/01/2014	01/01/2014	31/12/2016		On time

Five local workshops to launch the project will be organized by the end of October 2014, before the beginning of child recruitment. During the reporting period, two local workshops were held in Brescia and in Lecce. Programs, list of participants and photos of the events are annexed to the report (Annexes 7.5.10 and 7.5.11).

The first workshop took place in Brescia on 26/05/2014. Speakers of the event were prof. Gelatti, the project manager, and prof. Marioli of the University of Brescia, dr. Albini of the Municipality of Brescia, dr. Bonetti of CSMT, dr. Pastore of the Regional Agency for Environmental Protection, dr. Speziani of the Local Health Authority and avv. Garbarino of the Brescia Council for the Environment. The roundtable discussed about knowledge, assessment and management of environmental problems in the area of Brescia.

The local workshop of Lecce was held on 24/06/2014. Prof. De Donno (local project leaders), dr. Bagordo, prof. Frigione, prof. Verri and prof. Martino for the University of Salento, arch. Bonocuore of the Municipality of Lecce, ing. Corsini of Lecce Province, dr. Quarta of the Local Health Authority and prof. Centonze of Lecce primary schools attended the event. Prof. Umberto Gelatti, project leader, participated as well.

The next workshops will be held in Pisa on 25/09/2014 (see the program in the Annex 7.5.12), in Torino on 14/10/2014 and in Perugia on 17/10/2014. The project manager, prof. Umberto Gelatti, will participate in each local workshop, presenting the project and representing its multicentric nature. A standard slide show of the project (Annex 7.5.13) was prepared and presented in each event.

Besides local events, three national and one international workshops will be organized. The first national workshop will take place in Lecce on 27/11/2014. The first draft of the program is attached to this report (Annex 7.5.14)

Task D1.9. Layman's report. Start scheduled for M34 (01/10/2016).

Task D1.10. Networking with other LIFE projects

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.10 Networking with other LIFE projects	01/01/2014	01/01/2014	31/12/2016		On time

During the reporting period, the dissemination board searched and selected some Life projects which may be relevant for MAPEC networking:

- ACEPT-AIR "Development of A Cost Efficient Policy Tool for reduction of Particulate Matter in AIR" (LIFE09/ENV/GR/000289), [http://www.aceptair.prd.uth.gr](http://www.aceptair.prd.uth.gr;);

- COSMOS RICE “Colloidal Silica Medium, to Obtain Safe Inert, from rice husk ash” (LIFE11 ENV/IT/000256), <http://cosmos-rice.csmt.eu>;
- GIOCONDA “i GIOvani CONtano nelle Decisioni su Ambiente e salute - Young voices count in decisions on env&health” (LIFE13 ENV/IT/000225);
- MED HISS “Mediterranean Health Interview Survey Studies: long term exposure to air pollution and health and surveillance” (LIFE12 ENV/IT/000834), <http://medhiss.eu>;
- MED-PARTICLES “Particles size and composition in Mediterranean countries: geographical variability and short-term health effects” (LIFE10 ENV/IT/327), <http://95.110.213.190/medparticles/index.php?lang=en>
- OPERA “Operational Procedure for Emission Reduction Assessment” (LIFE09 ENV/IT/092), <http://www.operatool.eu>;
- SEKRET Life “Sediment ElectroKinetic REmediation Technology for heavy metal pollution removal” (LIFE12 ENV/IT/000442).

Networking activities organized so far are listed below:

- the MAPEC project was presented during the technical meeting of the project MED HISS, held in Bologna (Italy) on 25/02/2014;
- the UNIBS team of the projects COSMOS RICE and OPERA were invited to and participate in the MAPEC local workshop held in Brescia on 26/05/2014;
- the MAPEC project was presented during the conference organized by the project ACCEPT-AIR in Skiathos Island (Greece) on 03/07/2014;
- the representatives of the projects GIOCONDA and SEKRET were invited to participate in the MAPEC local workshop which will be held in Pisa on 25/09/2014;
- the representatives of the projects MED-PARTICLES were invited to participate in the South Italian national workshop which will be held in Lecce on 27/11/2014;
- a close collaboration has been engaged with the projects GIOCONDA and OPERA, which share with MAPEC the objective to create methods and tools for supporting institutions and policy makers in monitoring levels of air pollution, assessing its health effects and planning policies to improve air quality. In particular, for this collaboration, the MAPEC will share with the other projects data and results, allowing an analysis which include many different aspects of the topic.

Task D1.11. Participation in dissemination events

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
D1.11 Participation in dissemination events	01/01/2014	01/01/2014	31/12/2016		On time

The project will be presented in dissemination events, targeted both to scientific and non-scientific audiences. During the reporting period, the project was presented in two events: the ACCEPT-AIR Conference organized during the 12th International Conference on Protection and Restoration of the Environment, PREXII (Skiathos Island, Greece, 29/06 - 03/07/2014), and the UNIBS DAYS (Brescia, 24/05/2014). The abstract on Book of Abstracts of the Conference, two photos and the slides presented at the first event are attached to the report (Annexes 7.5.15 and 7.5.16), as well as the program of the UNIBS DAYS (Annex 7.5.17).

Other contributes were sent to national and international conferences scheduled for the next months:

- the XIII FISV Congress (Pisa, IT, 24-27 September 2014);
- 47th National Congress of SItI (Riccione, IT, 1-4 October 2014);
- the XXXVIII AIE Congress (Napoli, IT, 5-7 November 2014);
- the VII EPH Conference (Glasgow, UK, 19-22 November 2014).

Furthermore, MAPEC project will be presented during the event BRIGHT “La Notte dei Ricercatori 2014”, which will be held in Pisa on 26/09/2014.

4.1.9 Action D2 – After-LIFE communication plan. Start scheduled for M34 (01/10/2016).

4.1.10 Action E1 – Project management

Task	Foreseen start-date	Actual start-date	Foreseen end-date	New foreseen end-date	Status
E1.1 Project management by UNIBS	01/01/2014	01/01/2014	31/12/2016		On time
E1.2 Reporting	01/01/2014	01/01/2014	31/12/2016		On time
E1.3 Communication	01/01/2014	01/01/2014	31/12/2016		On time

The project management is described in Chapter 3.1.

During the reporting period, two meetings of the executive board, dissemination group and lab group were held in Torino (30-31/01/2014) and in Brescia (27-28/05/2014). Lists of participants and photos about the meetings are attached to the report (Annex 7.5.18). A tight and continuative communication framework was set up between partners and assured through traditional and e-tools.

As regard reporting system, even if in the partnership agreement 3-month reports about technical and dissemination activities and cost situation were established, the coordinating beneficiary asked associated beneficiaries to send the reports twice: at the end of M4 (30/04/2014) in order to collect updated information for the visit of the external monitor (27/05/2014), and at the end of M7 (cost situation) and M8 (technical and dissemination activities) to collect the progress for the preparation of this inception report.

4.2 Availability of appropriate licences and authorisations

As described in paragraph 4.1.1 (task A1.2), the approval of the local Ethic Committees of the five towns in which children will be enrolled is the only authorization needed for performing the study. The project was submitted to and approved by Brescia Ethic Committee first and to Lecce, Perugia, Pisa and Torino Committees in a second time.

4.3 Envisaged progress until next report.

During the next months, the project will go on as scheduled. The main activities planned will be:

- a brief inter-laboratory calibration phase for the comet assay will be performed in September, when the subcontractor for the analysis of comet slides will be selected;
- after the beginning of the new school year in September, teachers, school personnel and children's parents of the selected schools in each town will be involved in meetings to explain the project and promote participation in the study. The recruitment of children will start in October-November 2014.
- after the beginning of the schools, the implementation actions (B1, B2 and B3) will start as well: recruitment of the children (B1) will start in October 2014 (M10) together with the collection and analysis of environmental and biological samples (B2 and B3);
- as regard dissemination activities (action D1): further six newsletters will be prepared and sent to the stakeholders and to contacts registered on the project website; local workshops will be held in Pisa (25/09/2014), Torino (14/10/2014) and Perugia (17/10/2014); the first national workshop will be held in Lecce (27/11/2014); networking activities with other Life project will continue; MAPEC project will be presented at other important scientific congress: 24-27/09/2014 at FISV Congress in Pisa (Italy), 1-4/10/2014 at SItI Conference in Riccione (Italy), 5-7/11/2014 at AIE Conference in Napoli (Italy) and 19-22/11/2014 at EPH Conference in Glasgow (UK).
- obviously, monitoring activities (action C1) will continue regularly as well as management tasks (action E1), including meetings of executive board and dissemination and lab groups and reporting of cost situation and technical and dissemination activities.

In the following Gantt-chart, the progress of each project task in the reporting period is presented in green compared with the established time schedule (in orange).

Name of the action and beneficiary responsible for its implementation		2014												2015												2016												
		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36	
Overall project scheduled		Proposed	M1, start date: 01/01/2014												M18, mid-term: 30/06/2015												M36, end date: 31/12/2016											
A1 Preparatory action		Actual	[Green]												[Yellow]												[Yellow]											
Task A1.1	Questionnaire about environmental exposures and other variables	Proposed	[Green]												[Yellow]												[Yellow]											
Task A1.2	Approval of local Ethic Committees	Actual	[Green]												[Yellow]												[Yellow]											
Task A1.3	Standardization of laboratory methods	Proposed	[Green]												[Yellow]												[Yellow]											
Task A1.4	Choice of schools	Actual	[Green]												[Yellow]												[Yellow]											
B1 Recruitment of children		Proposed	[Green]												[Yellow]												[Yellow]											
Task B1.1	Sampling and selection of the children	Actual	[Green]												[Yellow]												[Yellow]											
Task B1.2	Questionnaire to parents	Proposed	[Green]												[Yellow]												[Yellow]											
B2 Environmental sampling		Actual	[Green]												[Yellow]												[Yellow]											
Task B2.1	Sampling of PM0.5	Proposed	[Green]												[Yellow]												[Yellow]											
Task B2.2	Fibreglass filters extraction	Actual	[Green]												[Yellow]												[Yellow]											
Task B2.3	Chemical analysis of PAHs and nitroPAHs	Proposed	[Green]												[Yellow]												[Yellow]											
Task B2.4	Mutagenicity of air pollution	Actual	[Green]												[Yellow]												[Yellow]											
Task B2.5	Toxicity of air pollution	Proposed	[Green]												[Yellow]												[Yellow]											
Task B2.6	Collection of urban air chemical data	Actual	[Green]												[Yellow]												[Yellow]											
B3 Biological sampling		Proposed	[Green]												[Yellow]												[Yellow]											
Task B3.1	Sampling of oral mucosa cells	Actual	[Green]												[Yellow]												[Yellow]											
Task B3.2	Preparation of biological samples	Proposed	[Green]												[Yellow]												[Yellow]											
Task B3.3	Evaluation of early biological effects on children	Actual	[Green]												[Yellow]												[Yellow]											
B4 Development of a global risk model and recommendations for health policy		Proposed	[Green]												[Yellow]												[Yellow]											
Task B4.1	Data management	Actual	[Green]												[Yellow]												[Yellow]											
Task B4.2	Risk analysis on environmental data and evaluation	Proposed	[Green]												[Yellow]												[Yellow]											
Task B4.3	Statistical analysis and construction of a global risk model	Actual	[Green]												[Yellow]												[Yellow]											
Task B4.4	Application of global risk model for supporting public health policy	Proposed	[Green]												[Yellow]												[Yellow]											
C1 Monitoring the impact of the project actions		Proposed	[Green]												[Yellow]												[Yellow]											
Task C1.1	Monitoring plan	Actual	[Green]												[Yellow]												[Yellow]											
Task C1.2	Periodic updates for Monitor	Proposed	[Green]												[Yellow]												[Yellow]											
Task C1.3	External monitoring	Actual	[Green]												[Yellow]												[Yellow]											
Task C1.4	Internal monitoring	Proposed	[Green]												[Yellow]												[Yellow]											
C2 Evaluation of the socio-economic impact on the population and the local economy of the project		Proposed	[Green]												[Yellow]												[Yellow]											
Task C2.1	Context information collection	Actual	[Green]												[Yellow]												[Yellow]											
Task C2.2	Investigation of the association between socio-economic status and biological effects of air	Proposed	[Green]												[Yellow]												[Yellow]											
Task C2.3	Evaluation of the socio-economic impact	Actual	[Green]												[Yellow]												[Yellow]											
D1 Dissemination of information and results		Proposed	[Green]												[Yellow]												[Yellow]											
Task D1.1	Development of dissemination plan	Actual	[Green]												[Yellow]												[Yellow]											
Task D1.2	Coordinated project image	Proposed	[Green]												[Yellow]												[Yellow]											
Task D1.3	Articles	Actual	[Green]												[Yellow]												[Yellow]											
Task D1.4	Meetings with decision makers and institutions	Proposed	[Green]												[Yellow]												[Yellow]											
Task D1.5	MAPEC newsletter	Actual	[Green]												[Yellow]												[Yellow]											
Task D1.6	Press conferences	Proposed	[Green]												[Yellow]												[Yellow]											
Task D1.7	Educational package	Actual	[Green]												[Yellow]												[Yellow]											
Task D1.8	MAPEC Workshops	Proposed	[Green]												[Yellow]												[Yellow]											
Task D1.9	Layman's report	Actual	[Green]												[Yellow]												[Yellow]											
Task D1.10	Networking with other LIFE projects	Proposed	[Green]												[Yellow]												[Yellow]											
Task D1.11	Participation at dissemination events	Actual	[Green]												[Yellow]												[Yellow]											
D2 After-LIFE communication plan		Proposed	[Green]												[Yellow]												[Yellow]											
E1 Project management		Proposed	[Green]												[Yellow]												[Yellow]											
Task E1.1	Project management by UNIBS	Actual	[Green]												[Yellow]												[Yellow]											
Task E1.2	Reporting	Proposed	[Green]												[Yellow]												[Yellow]											
Task E1.3	Communication	Actual	[Green]												[Yellow]												[Yellow]											
Task E1.4	External audit	Proposed	[Green]												[Yellow]												[Yellow]											

5. Financial part

5.1 Putting in place of the accounting system.

The project accounting system has been put in place as soon as the project started on the 1st of January 2014.

In the financial administration activities of the project the coordinator is supported by Gruppo Impresa Finance Srl, a company specialised in financial-administrative management of European projects. This assistance is based on a framework contract between UNIBS and Gruppo Impresa Finance Srl, a framework contract which was subject of a public tender and was won by this company. The procedure, in accordance with the UNIBS regulation for the selection of providers (Annex 7.5.26) was concluded with the awarding decision prot. N°0008366 of 21/04/2010 (Comunicazione di aggiudicazione procedura di cottimo fiduciario per l'affidamento del servizio di assistenza a supporto del Servizio Ricerca Scientifica e corsi/Progetti con finanziamento esterno dell'Università degli Studi di Brescia – Disp. Direttore Reg. XI n.404 del 16 aprile 2010).

The project accounting system keeps a copy of the project relevant documents in both electronic and paper version, in a tailor-made directory divided by periods, cost categories and beneficiary.

Both the electronic and the paper versions are regularly updated on the occasion of the internal monitoring reports (every 3 months), the due external reports and the monitoring visits, and are all available for eventual inspection of the EC. The internal procedure foresees that all beneficiaries send a copy of their financial-administrative documents and their related filled-in financial form to the coordinating beneficiary and to Gruppo Impresa Finance, which carries out all the necessary controls and requests from the beneficiaries eventual integrations or corrections, according to the requisitions of the LIFE+ programme.

The cost items of each partner are regularly inserted in the LIFE beneficiary's financial form by themselves, while the project totals are followed up in a costs monitoring file. This file monitors the advancement of project costs and staff hours – compared to the budget – by cost category and action.

For the registration of staff hours all beneficiaries use the standard LIFE+ timesheet format. Timesheets are filled in regularly by all members of the project staff and they are signed and counter-signed by the related responsible before the 15th day of the next month.

In compliance with the Common Provisions, all beneficiaries set up a partner level project accounting system for archiving and conserving all the project related administrative-financial documents for the entire project duration and for at least 5 years after the final payment.

Not recoverable VAT

For most beneficiaries - except for CSMT - VAT is a not recoverable cost, so we enclose in annexes the related declarations of UNIBS, UNIPG, UNITO, UNIPI, UNISALENTO and COMUNE BS (Annexes 7.5.19 to 7.5.24), in accordance with Art. 30.2 of the Common Provisions: "In lieu of such legal documents, the Commission may accept, as proof of VAT eligibility, an explicit declaration in the independent financial audit mentioned in article 31 listing the amounts of VAT that have been paid and that may not be recovered by the coordinating beneficiary and/or its associated beneficiaries".

5.2 Continued availability of co-financing.

The project has no external co-financing; the costs are covered by the EC grant and by the beneficiaries' own contribution. All the beneficiaries are able to cover the incurring project costs continuously.

5.3 Costs incurred (summary by cost category and relevant comments).

Considering the availability difficulties of the summer holiday period, the consortium provides the complete financial data regarding period 01/01/2014 - 31/07/2014. The technical part of this report comprises also the August activities.

Budget breakdown categories	Total cost in €	Costs incurred from the start date to	% of total costs
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		31.07.2014 in €	
1. Personnel	1.416.704,00	177.971,41	12,56
2. Travel and subsistence	93.702,00	4.198,68	4,48
3. External assistance	273.221,00	21.829,85	7,99
4. Durable goods	44.202,00	11.684,45	26,43
Infrastructure	0	0	0
Equipment	44.202,00	11.684,45	26,43
Prototype	0	0	0
5. Land purchase / long-term lease	0	0	0
6. Consumables	153.103,00	13.904,89	9,08
7. Other Costs	120.051,00	25.959,14	21,62
8. Overheads	145.519,00	17.479,43	12,01
TOTAL	2.246.502,00	273.027,85	12,15

The incurred costs in the reference period (M1-7) are in line with the expectations both for cost categories and also for the different Actions. By the end of Month 7 the project “spend” the 12,15% of the planned budget and used up 9,45% of the planned working hours.

The 30% threshold value of total costs is expected to be reached around month 13.

The division of costs by Action is the following:

Action number and name	Foreseen costs €	Spent so far	Remaining	Projected final cost	Comments*
Action A1 "Preparatory action"	109.929	65.665,85	44.263,15	110.125	+80+16+60+40=+196
Action B1 "Recruitment of children"	47.609	0	47.609,00	47.413	-80-16-60-40=-196
Action B2 "Environmental sampling"	394.553	7.055,80	387.497,20	394.553	
Action B3 "Biological sampling"	534.410	6.849,09	527.560,91	547.911	+13.501
Action B4 "Development of a global risk model and recommendations for health policy"	105.986	667,26	105.318,74	92.485	-13.501
Action C1 "Monitoring the impact of the project actions"	101.777	21.530,65	80.246,35	101.777	
Action C2 "Evaluation of the socio-economic impact on the population and the local economy of the project"	18.700	0	18.700,00	18.700	
Action D1 "Communication and dissemination of results"	403.369	65.795,69	337.573,31	403.069	-300
Action D2 "After-LIFE communication plan"	0	0	0	0	

Action E1 "Project management and monitoring of the project progress"	384.650	82.141,85	302.508,15	384.950	+300
TOTAL	2.100.983	249.706,20	1.851.276,80	2.100.983	0

*Please see the explanation of the variations in section "Expected modifications to the project budget"

Comments on the budget posts

Staff

The MAPEC overall staff efforts at the end of month 7 reached 4728,4 working hours dedicated to the project activities (9,45% of the planned hours), which in terms of staff costs make 12,56% of the budget used until now; these numbers are exactly in line with the foreseen progress of the activities.

Travel and subsistence

The costs charged in this category in the reference period constitute 4,48% of the available budget. Most of travel costs will be charged for the dissemination activities, which are more concentrated on the second part of the project.

External Assistance

The incurred external assistance costs make 7,99% of the budget of this category. Several selection procedures are ongoing and will be concretized in the next months.

Equipment costs

In this first project period equipment was purchased for 11.684,45€, which is 26,43% of the budgeted total costs in this category (UNITO).

Consumables

In this cost category the project used 9,08% of the available budget, which is in line with the expectations and with the implementations of the already started project activities.

Other costs

The costs charged in this category in the reference period constitute 21,62% of the available budget. Most of them were spent for Action D1 - Communication and dissemination of results.

Costs per action

The advancement of project costs in the reference period was most concentrated on actions A1-Preparatory action (59,73% of budget spent), C1-Monitoring the impact of project actions (21,15% of budget spent, mostly for setting up the monitoring system), D1-Dissemination of information and results (16,31% of budget spent so far, principally for the development of the coordinated project image and the website) and E1-Project management (21,35% of budget used up).

Other 3 actions have already started to use budget: B2, B3 and B4. B4 began in July, B2 and B3 will begin in October 2014, but the necessary consumable material for environmental and biological sampling and laboratory testing has already been purchased so that it will be ready and available for October.

5.4 Expected modifications to the project budget

Generally speaking, the project costs incurred by far are coherent with the costs foreseen in the budget; only some smaller variation issues emerged.

Erroneous action number in the budget for some cost items and their correction:

Cost category	Beneficiary	Description	Cost	Erroneous action number	Correct action number
Travel and subsistence costs	UNITO	meetings with parents/schools	80 €	B1	A1
Travel and	UNIPI	meetings with	16 €	B1	A1

subsistence costs		parents/schools			
Travel and subsistence costs	UNIPG	meetings with parents/schools	60 €	B1	A1
Travel and subsistence costs	UNISALENTO	meetings with parents/schools	40 €	B1	A1
Durable goods: equipment costs	UNIPG	computer per data management and analysis	1501 €	B4	B3
Consumables	UNIPG	laboratory material	12000 €	B4	B3
Other costs	UNITO	1 project meeting	300 €	D1	E1

Other foreseen variations:

UNIBS

As the project started on 1st January 2014, the cost of participation of prof. Gelatti and dr. Ceretti to the central kick-off meeting in Roma in autumn 2013 was not an eligible project cost. The 680 euro reserved in the budget for this will be used for other project activities, to be defined later.

UNISALENTO

Variation of the hourly rate of prof. Antonella De Donno: the hourly rate of prof. Antonella De Donno increased from 32,64 € to 37,54€ since June 2014. Please see attached the details in Annex 7.5.25.

6. Answer to EC requests

Please find here the answer to the issues requested in the annex of the EC letter of 19/06/2014, after the visit of external monitor:

- Action D1.3 Articles.

<u>Action D1.3. Articles:</u>	
Although the production of several articles was foreseen, they are not listed amongst the deliverables. Please add the foreseen articles to the list of deliverables, according to the following table, and propose a reasonable deadline with the Inception Report:	
Type of article	N°
Scientific articles	5
Dissemination articles	15
Contributes to national conferences	10
Contributes to international conferences	8

The list of project deliverables was updated adding the production of scientific and non-scientific articles and the participation to national and international conferences, as follow:

Name of the Deliverable	Number of the associated action	Deadline
Submission of 2 scientific articles to specialized journals	D1	31/12/2014
Publication of 7 non-scientific articles	D1	31/12/2014
3 contributes to national conferences	D1	31/12/2014
2 contributes to international conferences	D1	31/12/2014
Submission of 1 scientific articles to specialized journals	D1	31/12/2015
Publication of 3 non-scientific articles	D1	31/12/2015
3 contributes to national conferences	D1	31/12/2015
2 contributes to international conferences	D1	31/12/2015

Submission of two scientific articles to specialized journals	D1	31/12/2016
Publication of 5 non-scientific articles	D1	31/12/2016
4 contributes to national conferences	D1	31/12/2016
4 contributes to international conferences	D1	31/12/2016

- Action D1.10 Networking with other LIFE projects.

Action D1.10 Networking with other LIFE projects:

Please provide with the Inception Report a clear indication of the networking strategy adopted, including activities, expected results, and events, in order to facilitate the follow-up of the progress concerning this action.

Regarding the networking, the MAPEC dissemination group has defined a strategy which will allow the discussion and the exchange of ideas and experience with other Life projects. This strategy is described in the Communication plan (Annex 7.2.4). First of all, projects that share similar topics with MAPEC will be selected through the EC Life project database: projects about monitoring of air pollution levels, evaluation of air pollution effects and strategy/policy to decrease pollutant concentration will be considered as relevant project for the MAPEC networking. Further projects about health effects of other environmental problems, as well as overall involvement of children will be taken into consideration as well. The selection of projects will continue till the end of the project, in order to consider new projects as well.

After the selection phase, the MAPEC networking strategy foresees three different levels of involvement:

- a letter of presentation of the project will be sent to all the projects selected, in order to convey the MAPEC project and inform about the existence of a MAPEC website; the same contacts will be added to the mailing list for the newsletter;
- selected projects, with a topic closer to MAPEC topic, will be invited to participate in MAPEC local, national and international workshop. Of course, when invited, we will attend meetings and events organized by other Life projects;
- with a few projects, which share MAPEC objectives and methodologies, other than the topic, a real collaboration and data exchange will be developed.

- Internal rules for the selection of providers.

Internal rules for the selection of providers:

Please ensure that the internal rules for the selection of service providers are clearly defined, in order to ensure that costs incurred are reasonable, justified and comply with the principles of sound financial management, in particular in terms of economy and efficiency, in accordance with art. 24.1 of the CP. Please provide with the Inception Report clear information on such rules, and describe the procedures followed so far for awarding the contracts for external assistance.

The consortium follows clear rules for the selection of service providers. First of all, each beneficiary must follow internal rules of its own organization. Six of the seven partners of the project are public bodies and award subcontracts in accordance with applicable rules on public tendering. In any case, each beneficiary observes the principles of sound financial management, transparency and equal treatment of potential subcontractors. Moreover, for each external assistance cost below than the tendering threshold, even if it is not requested by internal rules, the consortium will collect offers from at least 3 different providers, among which the best offer in terms of economy, efficiency and quality will be chosen.

The reference regulations of each beneficiary are attached to this report (Annexes 7.5.26-7.5.33).

In the reference period, two external assistance items were reported:

- the contract for the support to financial-administrative project management, awarded by UNIBS. Please see details in section 5.1;
- the contract for the professional support to project management, awarded by CSMT following the procedure foreseen in Annexes 7.5.31 and 7.5.32;

- **Erroneous attribution of costs.**

Erroneous attribution of costs:

You have mentioned an erroneous attribution in the project budget of costs for € 12,000 in the consumable category, and of € 1,501 in the equipment category attributed to action B4 instead of Action B3. Please include this explanation in the relevant section of the Mid-Term Report.

All the changes in the preventive budget are listed in the financial part (chapter 5) of this report, including erroneous attribution mentioned by the EC letter.

7. Annexes

7.1 Partnership agreement

7.2 Deliverables

7.2.1 Notice Board

7.2.2 Notice Board photo

7.2.3 Monitoring plan

7.2.4 Communication plan

7.2.5 Scientific article. Scientific article published in BMJ Open journal

7.3 Milestones

7.3.1 Environmental and biomonitoring protocols

7.3.2 Ethic Committee approvals

7.4 Output indicators. Definition

7.5 Other annexes

7.5.1 Questionnaire

7.5.2 MAPEC logo

7.5.3 MAPEC traditional brochures

7.5.4 MAPEC brochures seagull

7.5.5 MAPEC brochures swan

7.5.6 List of non-scientific articles and folder including all of them (the folder is attached only in digital version)

7.5.7 Newsletter

7.5.8 Press conferences. Press releases and photos of the five press conferences held for the beginning of the project

7.5.9 List of videos and folder including all of them (the folder is attached only in digital version)

7.5.10 Brescia local workshop. Program, list of participants and photos of Brescia local workshop

7.5.11 Lecce local workshop. Program, list of participants and photos of Lecce local workshop

7.5.12 Pisa local workshop. Program of the next Pisa local workshop

7.5.13 MAPEC slide show. Standard slide show of the project (only in digital version)

7.5.14 National workshop. Draft of the program of the Lecce National workshop

7.5.15 Participation in dissemination events. Abstract published on the book of abstract of the PREXII Conference and photos of the event

7.5.16 Slides of event participation. Slides presented to the PREXII Conference (only in digital version)

7.5.17 Program of UNIBS DAYS

- 7.5.18** Project meetings. List of participants and photos of the two project meetings held during reporting period
- 7.5.19** UNIBS_Not recoverable VAT declaration
- 7.5.20** UNIPG_Not recoverable VAT declaration
- 7.5.21** UNITO_Not recoverable VAT declaration
- 7.5.22** UNIPI_Not recoverable VAT declaration
- 7.5.23** UNISALENTO_Not recoverable VAT declaration
- 7.5.24** COMUNE BS_Not recoverable VAT declaration
- 7.5.25** UNISALENTO_Hourly rate De Donno
- 7.5.26** UNIBS_Regulation for provider selection
- 7.5.27** UNIPG_Regulation for provider selection
- 7.5.28** UNITO_Regulation for provider selection
- 7.5.29** UNIPI_Regulation for provider selection
- 7.5.30** UNISALENTO_Regulation for provider selection
- 7.5.31** CSMT_Code of ethics
- 7.5.32** CSMT_Regulation for provider selection
- 7.5.33** COMUNE BS_Regulation for provider selection