



## LIFE17 ENV/GR/000352

### Deliverable Name: Management plan and Contingency plan

Deadline for the deliverable: 30/09/2018

(revised January 2020 according to the approved amendment and revised Grant agreement)

#### LIFE PROJECT NAME: LIFE CAT4HEAVY

##### Data Project

Project location:	Bulgaria, Germany, Greece, Italy, Netherlands, Spain
Project start date:	02/07/2018
Project end date:	01/01/2022
Total budget:	€ 2,774,017
EU contribution:	€ 1,635,662
(%) of eligible costs:	60

##### Data Beneficiary

Name Beneficiary:	DIMOS GALATSIU (Municipality of Galatsi), short name GALATSI
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## **Executive Summary**

The deliverable describes the overall management of the LIFE CAT4HEAVY project: organization of the project coordination, management structures, roles, procedures adopted and contingency plan.

The main objective of the document is to facilitate co-operation in the LIFE CAT4HEAVY project by defining common rules and standards for the day-to-day work. The document addresses several issues concerning beneficiaries' roles and responsibilities, in accordance with the Grant Agreement LIFE17 ENV/GR/000352, its annexes and the partnership agreement.

The Management plan and Contingency plan is intended as a reference material to the project participants and will be kept up-to-date throughout the project lifetime.



## 1 Introduction

### 1.1 Project description

The LIFE CAT4HEAVY project aims to demonstrate the feasibility and performances of an emission control technology that will significantly impact air quality and environment by substantially reducing:

- air pollutant emissions of EU HDV sector: 2% compared to its emissions in 2015,
- the use of the critical raw materials: 0.35% with respect to the total actual EU demand,
- ammonia by 100% compared to the EU actual use in HDVs after-treatment systems,
- waste coming from end of life HDVs by retrofitting CAT4HEAVY on existing HDVs, independently by their Euro class.

### 1.2 Deliverable description and objectives

The objectives of the management plan and contingency plan are those related to the action E1: Project Management by GALATSI i.e. management, monitoring and control of the project, including in particular:

- Timely execution of the project activities;
- Project coordination;
- Technical project management;
- Administrative and financial management and reporting to EC;
- Organisation of meetings and conference calls;
- Auditing.

## 2 Project management

### 2.1 Overall management

LIFE CAT4HEAVY project Consortium is composed of 8 beneficiaries bound by the term and conditions of:

- The Grant Agreement signed with the EC n° LIFE CAT4HEAVY - LIFE17 ENV/GR/000352 and its annexes, and the following amendment approved by EASME.
- The Partnership agreement signed by all beneficiaries, formalizing the project organizational structure and decision-making mechanisms – revised in December 2019 according to the amendment to the Grant agreement.

#### 2.1.1 Organisational structure and roles

The organisational structure of the CAT4HEAVY project management is the following:

Coordinating Beneficiary: DIMOS GALATSIU (Municipality of Galatsi)

Associated Beneficiaries: APAM ESERCIZIO S.P.A

GE.AM. Gestioni Ambientali S.p.A.

LOMARTOV S.L.

MONOLITHOS Catalysts & Recycling Ltd.

PURI tech GmbH

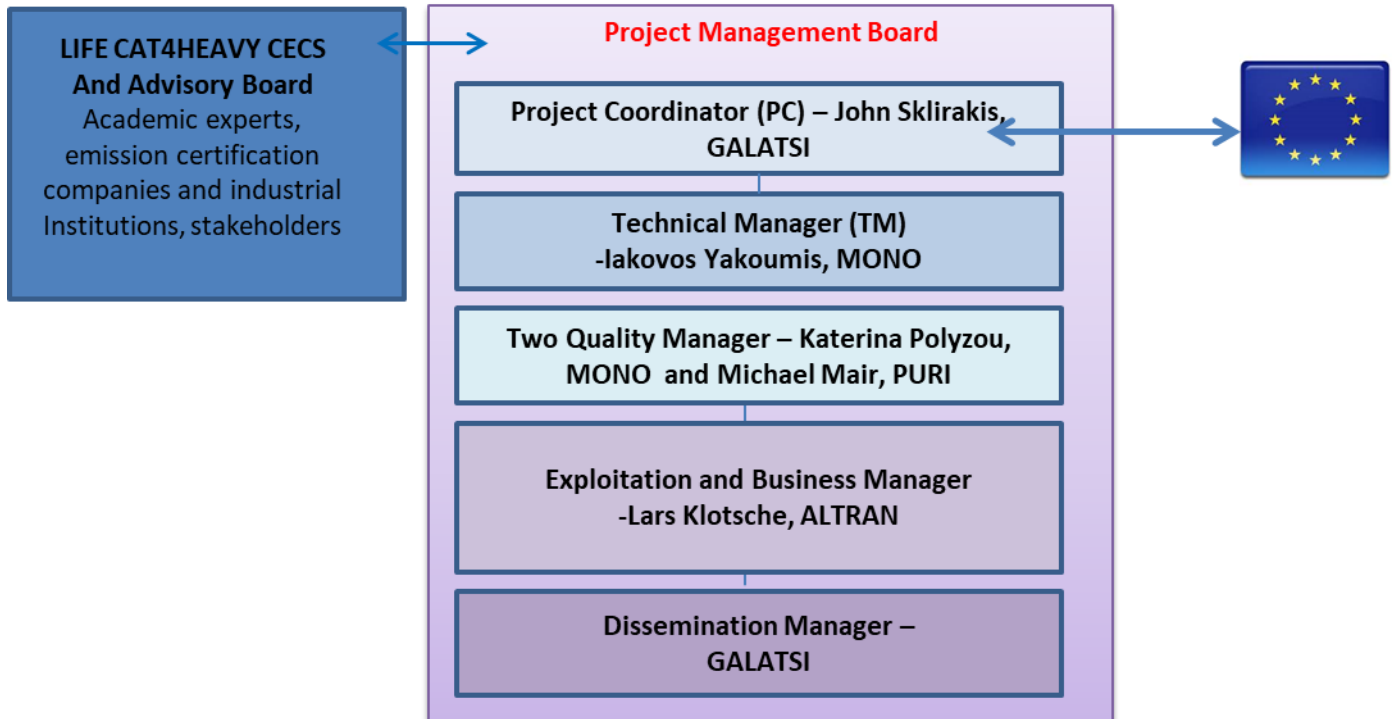
Altran Deutschland S.A.S. & Co. KG

MNLT Innovations IKE



More information regarding the role of each beneficiary in the project, is provided in Annex 1 Project Management partner table.

The LIFE CAT4HEAVY **Management Board (MB)** is structured as follows:



**Project Coordinator (PC):** Mr John Sklirakis - Galatsi

**Technical Project Manager (TPM):** Mr Iakovos Yakoumis, MSc, Monolithos

**Two Quality Managers (QM):** Moschovi Anastasia (Monolithos) and Mr Michael Bank (Puritech)

**Exploitation and Business Manager:** Mr Lars Klotsche, Altran

**Dissemination Manager and Project Coordinator Assistant:** Mrs Georgia Terpsithea Pandroula, Galatsi

Moreover, eight members' board are chaired by the PC, one project manager from each beneficiary, namely:

APAM: Mr Maurizio Ballista

Ge.Am: Mr Andrea Contini

Lomartov: Mrs Lorena Romero

Monolithos: Mr Iakovos Yakoumis

Puritech: Bernhard Kahlert

Altran: Mr Lars Klotsche

MNLT: to be appointed



**Project Management Board (MB)** is the formal decision-making body of the consortium.

- analyses the well-development of the project,
- takes decisions and establishes modification in different work- packages,
- has the overall responsibility for the administrative and technical management of the project.

The MB is the authority for making all technical decisions within the project and has direct technical control of all work activities.

The MB identifies critical issues, adjusts project activities where required. The MB can also update the project management plan and contingency plan (if necessary).

MB will support the Project Coordinator regarding financial reports to the EC, assembling overall project financial statements and reports; management of upfront and end payments.

All MB project managers manage all financial activities daily by creating a budget schedule linked to actions, monitoring all cost items vs. the budget schedule, preparing monthly detailed and summary financial reports broken down by the type of activity and cost, coordinating any internal or external audits required.

The LIFE CAT4HEAVY **Project Coordinator (PC)** is John Sklirakis, Head of the Organising, Planning and Development Department, of the Municipality of Galatsi.

The main responsibilities of the PC are as follows:

- to have at any time a global view on the project and on the major problems that might arise,
- to ascertain the overall progress of the work,
- to manage the different priorities during the development of each task (smoothly running of project activities),
- to secure the optimum flow of information,
- to exercise project leadership through chairmanship of technical meetings, training session, etc.,
- to maintain communication and flow of information as required for the efficient implementation of the project.

GALATSI's team shall also perform complete project's financial coordination including financial transactions, continuous assessment of expenditure/resources, evaluation of supporting financial documentation, continuous communication and reporting to the partners and the Commission. The PC will act as the unique point of contact with the European Commission for all matters and effectively put forward project management activities, including interfacing with the Commission, activation of corrective measures towards the goals, if needed, organisation and chairing of meetings, when required, risk monitoring and management.

The **Technical Project manager (TM)**, Iakovos Yakoumis, MSc, from MONO, supports the project coordinator pertaining technical analysis and activities and has the overall technical responsibility for the project.

Two **Quality Managers (QMs)**, Katerina Polyzou from MONO and Michael Mair from PURI, hold the overall responsibility for quality within the project, provide support to the PC regarding quality assessment and be responsible for the quality of the deliverables and reports, their structure and connection to the main aim of different actions. The QMs are entitled to request additional reports and remedial actions where appropriate. A Quality Plan will be drafted to set forth the procedure according to which the deliverables will be prepared and delivered.

**Action leader responsible for the implementation of each action will:**

- **control** the progress of the scheduled work within the action in terms of technical achievement and expenses and report to the MB;
- **apply** decisions taken by the MB;
- **organize a monthly meeting/call** with partners involved in the action of his responsibility in order to manage and monitor the action implementation (the meeting/call will be held in the period 20<sup>th</sup>-24<sup>th</sup> of each month);
- **collect** the information needed to prepare the periodic progress reports and to transmit them to the MB in particular to the QMs;



- **manage** topic ground meetings, and report to the MB on all matters related to the topic and action progress;
- **comply** with the planned deadlines (deliverables, reports) and **inform PC** of possible delays in the action implementation or eventual risks.

## 2.2 Monitoring and control

The project progress will be constantly monitored and the correspondence with the original plan will be checked. The monitoring process will be based on the Grant Agreement, in particular Gantt Chart and deliverables/milestones deadlines indicated, in order to identify potential drawbacks on time and identify corrective actions, if needed.

### 2.2.1 Deliverables and milestones

The deliverable/milestone list is reported in the Grant Agreement and it will be monitored in order to respect the deadlines indicated. The deliverables will be prepared and attached to the official reports submitted to the Agency/Commission according to the reporting schedule. A complete list of deliverables and milestones with the indications of the responsible partner is attached to the present deliverable (Annex 2).

The deliverables related to the project management are the following:

Deliverable Name	Deadline
Minutes from the Kick Off Meeting	07/2018
Quality Plan	09/2018 – updated 01/2020
Management and Contingency Plan	09/2018 – updated 01/2020
Minutes from the 1 <sup>st</sup> in person management project meeting	06/2019 – done 11/2019
Consortium Agreement	09/2018 – updated 12/2019
Audit Report	01/2022
Minutes from the 2nd in person management project meeting	06/2020

### 2.2.2 Gantt

The CAT4HEAVY activities will be implemented according to the following Gantt included in the Grant Agreement:







In the Gantt, the partners responsible for the actions' implementation have been indicated and the action leader have been underlined. The buffer time for each action has been indicated by dashed cells. The Gantt shows the activities up to the project end. However please note that Action E3 will run up to 01-10-22.

During the project lifespan, the activities implementation progress and the respect of the foreseen work plan will be constantly monitored.

Each modification or delay respect to the foreseen Gantt will be detected, discussed with all beneficiaries and timely communicated by the Coordinating beneficiary to the monitoring team/Commission in the occasion of the monthly report and official reports (Progress, Midterm, Final).

### 2.2.3 Technical and financial reporting

The reporting schedule for the CAT4HEAVY project is as follows:

Type of report	Deadline
Progress report	31/12/2019 - submitted
Midterm report	31/07/2020
Progress report	01/03/2021
Final report	01/04/2022

The **Progress report** is the first official report to be submitted to the European Commission by the LIFE CAT4HEAVY Consortium. It will contain the following information:

- an overview of the progress of work towards the objectives of the project, including achievements and attainment of any milestones and deliverables identified in Annex II.
- differences between work expected in accordance with Annex II and work actually carried out
- problems encountered (if any) and solutions proposed / contingency plan
- a summary of the costs per category of all beneficiaries
- all deliverables due for the period will have to be sent as annex to the report.

According to Art. II.23 of the General Conditions, a progress report have been scheduled before the Midterm report in order to not have a delay between consecutive reports sent to the European Commission exceeding 18 months. Furthermore the coordinating beneficiary will submit a progress report on the technical implementation of the project, between midterm and Final report, to better monitor project progression and implementation both from technical and financial point of view.

The **Mid-term report** represents the request for a second pre-financing and beneficiaries has scheduled it so that the level of expenditure will have reached the 100% of the first pre-financing received at the beginning of the project.

The Project Coordinator with the contribution of all beneficiaries will prepare the Mid-term report that will



contain the following information:

- an overview of the progress of work towards the objectives of the project, including achievements and attainment of any milestones and deliverables identified in Annex II.
- differences between work expected in accordance with Annex II and work actually carried out
- problems encountered (if any) and solutions proposed / contingency plan
- a financial part, composed of:
  - a financial statement duly filled in and signed by each beneficiary
  - a consolidated financial report of all the beneficiaries based on the information provided in the financial statements of each beneficiary.
- all deliverables due for the period will have to be sent as annex to the report.

The **Final report** will be submitted to the European Commission within 90 days after the end of the project including:

- a technical report covering activities performed, results achieved and all information needed to justify the claimed eligible costs
- a financial part, composed of:
  - a financial statement duly filled in and signed by each beneficiary
  - a consolidated financial report of all the beneficiaries based on the information provided in the financial statements of each beneficiary.
  - a **certificate on the financial statement** provided by an approved external auditor. The certificate shall be drawn up in accordance with Annex VII of the Grant Agreement.
- all deliverables due for the period will have to be sent as annex to the report including the Layman's Report.

All templates of the official reports as well as the financial statements are available in the LIFE programme website under the section Toolkit/Project Management Tools and will be available in the Cat4Heavy document repository inside the private area of the Website for easy access from project Beneficiaries. The coordinating beneficiary will circulate a first draft/template of the report (and will upload it on the private area repository – internal area of the website, with restricted access rights granted only to the consortium) and beneficiaries will be asked to send their inputs.

Each associated beneficiary will transmit to the coordinating beneficiary all the technical and financial documentation within 30 days before the deadline for the submission of the Midterm and Final reports and within 20 days before the deadline for the submission of the Progress reports.

Moreover, the coordinating beneficiary will send a report each 3 months to the Technical project manager and the quality managers with the description of the activities progress. Each associated beneficiary will provide the inputs on the activities performed at least two weeks before the deadline.

Each associated beneficiary will provide within the 23<sup>rd</sup> day of each month all technical and administrative information regarding the activities performed during the month in order to prepare the **monthly report** that will be sent to the monitoring team within the end of the month.

Each associated beneficiary will provide any relevant information to the coordinating beneficiary in due time before the submission of reports to the Agency/Commission and be available with additional information, should the Agency/Commission so request. In case the required frequency or type of these reports changes, such changes will be communicated and agreed in writing by both the associated and coordinating beneficiaries.



**Financial reporting**

According to the partnership agreement, each associated beneficiary has to send copies of **supporting (accounting) documentation** to the coordinating beneficiary every 3 months. This includes the personnel salary slips, timesheets duly completed and signed by the involved staff and the supervisor, tender documents, invoices, purchase orders, proof of payments and any other documents used for the calculation and presentation of costs.

Moreover, each associated beneficiary will also send the updated **financial statement** every 3 months duly filled in with information concerning all the costs sustained.

In the occasion of the official reports, each beneficiary will provide the final statement of expenditure and income, at least 30 days before the deadline for submission to the Agency/Commission of the Midterm/Final report.

**2.2.4 Meetings and conferences call**

The meetings will be realised in order to ensure that the project delivers its objectives according to the time plan and to address eventual problems risen during the project implementation. The meetings (in person or teleconferences) will be arranged regularly. The overall progress of the project will be monitored in follow-up **6-monthly project progress meetings**. The Project Coordinator will be the chairperson of project meetings and will give notice in writing of a meeting to each beneficiary as soon as possible and no later than 21 calendar days preceding an ordinary meeting and 7 calendar days preceding an extraordinary meeting. The Project Coordinator shall also convene extraordinary meetings (telco or in person) at any time in case of necessity.

The Project Coordinator shall provide the agenda for such meeting, produce written minutes of each meeting which shall be the formal record of all decisions taken.

According to the Grant Agreement the following deadlines have been defined for:  
 Organisation of in person management meetings: 30/06/2019, 30/06/2020, 30/07/2021  
 Organisation of telco for management: 30/01/2019, 30/01/2020, 30/01/2021.

**3 Contingency plan**

Risk description	Risk level and probability	Actions and Manager	Risk-mitigation measures
Technical risks linked to the up-scaling of the three-way nano-catalysts	low low	B1 - MONO	The three-way nano-catalysts have already been validated in an industrial operational environment in the light duty vehicles sector, demonstrating that the claim to substitute up to 67% of PGMs while keeping top class performances is feasible. So the only risk is related to the translation of the solution in a different sector: the heavy duty vehicles one. The risk level is very low considering the multi annual experience of the technical partners involved (MONO) in producing catalytic converters. All up-scaling parameters will be studied (such as total volume and shape of the honeycomb, total PGM and copper content) to do not



			affect the basic operations of the vehicle (such as higher consumption due to higher back pressure/resistance to the catalyst device). Suitable oxides, which present elevated oxygen storage capacity, will be incorporated in order to obtain better catalytic efficiency.
Technical risks linked to the up-scaling of oxygen removal system (ORS) for HDV Applications	medium medium	B2 - MONO	The ORS, already tested at lab level, will be up-scaled to TRL 7 during the project. During the upscaling of the membrane, all designing parameters will be studied. The only technological risk anticipated is that the dimension of the membrane needs to be larger than the SCR (that will be replaced). In this case, the back pressure of the whole system would be raised, resulting in higher fuel consumption and decreasing the (horse)power of the engine. To overcome this problem, the fuel injection system of PuriTech will be used in conjunction with the membrane resulting in a hybrid ORS. The fuel injection system will reduce the size of the membrane eliminating this technological risk.
Technical risks linked to the integration of ORS and DPF. The emission and operating behaviour of the DPF system may be adversely affected by the integration: the emission reduction thanks to the DPF system may be reduced due to the integration and / or the operation of the DPF can be no longer possible.	low low	B3 - PURI	The risks are very low because: a) The PURI DPF has already been validated in many emissions tests at accredited test laboratories and test institutes in Germany, Austria, and Switzerland such as TÜV Germany and FVT Austria as well as at scientific research facilities such as University of Graz (Prof. Dr. Hausberger) and University of Biel (Prof. Dr. Czerwinsky) b) durability on-road testing on PURI DPF has been monitored with excellent results and without a disturbance or fatigue of the DPF system in the endurance testing over more than 120,000 km. Risks coming from the condition of the engines used in the HDVs (engine not working correctly) and from the quality of diesel used will be eliminated by performing a full-scale engine maintenance on the HDV and laboratory tests of the diesel before retrofitting.
The LIFE CAT4HEAVY CECS prototypes during testing does not show the expected performances	low low	B3 - MONO	Risks coming from the condition of the engines used in the HDVs (engine not working correctly) and from the quality of diesel used will be eliminated by performing a full-scale engine maintenance on the HDV and laboratory tests of the diesel before retrofitting. All CAT4HEAVY modules (TWC, DPF, ORS) have been proven to work in laboratory and industrial environment. No problems are anticipating during the phase of the integration for all modules. The technical partners of the project (MONOLITHOS and PURITECH) have the necessary experience and knowledge in order to solve any minor problems that can be faced during the integration phase.
Delays / issues in setting-up and conducting the demonstration and replication in real environment	low low	B4 - GALATSI	An adequate buffer time for the demonstration and replication action has been already set (6 months). Corrective measures will be implemented, if necessary.



## 4 Conclusions

The present deliverable has been prepared at the project beginning in order to collect all management procedures needed for the successful project implementation.

The document will be updated during the project lifespan, if necessary.

## 5 Annexes

### Annex 1 Project Management partner table

Beneficiary	Country	Role in the Project
GALATSI	Greece	COORDINATOR, demonstration of the LIFE CAT4HEAVY solution in the Municipality of Galatsi; partner coordinating dissemination activities.
GEAM	Italy	Replication of the LIFE CAT4HEAVY solution in Italy, involvement in LCA, LCC, S-LCA to provide data collected during the replication study. Participating in dissemination activities.
LOMAR	Spain	Carrying out LCA-LCC- S-LCA; supporting market analysis and dissemination activities. Participating in dissemination activities.
MONO	Greece	Providing TWC and ORS devices; up-scaling and testing TWC and ORS for Heavy-Duty Applications; assembling and testing of LIFE CAT4HEAVY CECS; supporting, as technology developer and provider, ValueL in market analysis, techno-economic assessment, business and exploitation plan preparation. Participating in dissemination activities.
PURI	Germany	Providing DPF filters technology; testing LIFE CAT4HEAVY CECS; supporting, as technology developer and provider, ValueL in market analysis, techno-economic assessment, business and exploitation plan preparation. Participating in dissemination activities.
APAM	Italy	Replication of the LIFE CAT4HEAVY solution in Italy, involvement in LCA, LCC, S-LCA to provide data collected during the replication study. Participating in dissemination activities.
ALTRAN	Germany	Mainly responsible for market and business assessment, techno-economic assessment, along stakeholders management, participation in dissemination activities
MNLT	Greece	Dealing with the business development including the commercial agreements to be initialized, finalized and signed, business and exploitation plan preparation, stakeholders' engagement, participation in dissemination activities

Table Project management partner table

### Annex 2 Deliverables and milestones – responsible

Deliverable name	Action number	Deadline	Responsible
Minutes from the Kick off meeting	E1	31/07/2018	GALATSI
Consortium Agreement	E1	30/09/2018	GALATSI
Management plan and Contingency plan	E1	30/09/2018	GALATSI



Quality Plan	E1	30/09/2018	GALATSI
Dissemination and communication plan	D1	31/10/2018	GALATSI
Stakeholders management and business development plan	D2	31/10/2018	ALTRAN
Procurement Plan	E2	02/11/2018	GALATSI
Final report on the laboratory tests on the 2 TWC prototypes and 2 Reduction catalysts realised	B1	03/12/2018	MONO
Final report on the laboratory tests on the 5 ORS prototypes realised	B2	01/02/2019	MONO
Stakeholders mapping report	D1	31/03/2019	GALATSI
Minutes from the 1 <sup>st</sup> in person management project meeting	E1	30/06/2019	GALATSI
Market analysis and preliminary exploitation plan, the deliverable will report the market analysis and the preliminary exploitation strategy set up for the project	B5	02/12/2019	ALTRAN
Dissemination activities report I including LIFE KPI tables regarding dissemination activities	D1	31/12/2019	GALATSI
LCA-LCC of currently applied technologies	C1	31/12/2019	LOMAR
Report on progress on LIFE performance Indicators I	C1	31/12/2019	LOMAR
Stakeholders management and business development report I	D2	31/12/2019	ALTRAN
Replicability/transferability plan: Deliverable reporting replicability potential and results	B4	30/01/2020	MONO
Certification and homologation report, including a technical description for certifications requests, and an analysis of all certifications and homologation needed to enter EU and Global markets	B5	01/06/2020	ALTRAN
Minutes from the 2 <sup>nd</sup> in person management project meeting	E1	30/06/2020	GALATSI
Preliminary Full-scale GALATSI demonstration report: The deliverable will include the description of the test on going on GALATSI, and results achieved so far in comparison with expected performance	B4	01/07/2020	MONO
Final report on tests results on ORS+DPF and LIFE CAT4HEAVY CECS prototypes	B3	08/07/2020	MONO
Report on progress on LIFE performance Indicators II	C1	31/07/2020	LOMAR



Business plan, the deliverable will report the final business plan for the project and a plan for the commercialisation of the project results	B5	01/12/2020	ALTRAN
Homologation and certifications in Italy and Greece	B5	01/12/2020	ALTRAN
Report on the positive LIFE CAT4HEAVY health impact for health organisations	C2	02/12/2020	LOMAR
Roadmap for policy makers on LIFE CAT4HEAVY job creation, health improvement, social inclusion and gender equality in terms of job opportunities	C2	01/02/2021	LOMAR
Full-scale GALATSI demonstration report: The deliverable will include the description of the test conducted on GALATSI, and the results achieved in comparison with expected performance	B4	01/06/2021	MONO
Dissemination activities report II including LIFE KPI tables regarding dissemination activities	D1	30/06/2021	GALATSI
Layman's report	D1	30/06/2021	GALATSI
Stakeholders management and business development report, including information on contracts	D2	30/06/2021	ALTRAN
Final Report on Green Procurement policies applied to LIFE CAT4HEAVY project	E2	01/10/2021	GALATSI
Emission standards report	B4	01/11/2021	PURI
Full-scale GEAM-APAM demonstration report: The deliverable will include the description of the tests conducted on GEAM and APAM HDVs, and the results achieved in comparison with expected performance	B4	01/11/2021	MONO
Report on homologation tests	B4	01/11/2021	PURI
Comparative LCA-LCC of LIFE CAT4HEAVY demonstration unit	C1	01/12/2021	LOMAR
Report on progress on LIFE performance Indicators Final	C1	01/12/2021	LOMAR
After LIFE Plan	E3	31/12/2021	MONO
Audit Report	E1	01/01/2022	GALATSI



Milestone name	Action number	Deadline	Responsible
2 Reduction Catalysts realised	B1	30/09/2018	MONO
2 TWC prototypes realised	B1	30/09/2018	MONO
LIFE CAT4HEAVY website online	D1	30/09/2018	GALATSI
Dissemination and communication Plan	D1	01/10/2018	GALATSI
2 ORS Prototypes realised	B2	02/11/2018	MONO
All subcontractor and suppliers selected	E2	30/11/2018	GALATSI
3 Prototype of integrated ORS + DPF solution realised	B3	03/12/2018	MONO
1 Prototype of the whole LIFE CAT4HEAVY CECS realised	B3	15/03/2020	MONO
Desk research for market and competition analysis completed	B5	30/06/2019	ALTRAN
I Joint workshops between EU projects organised	D1	30/06/2020	GALATSI
LIFE CAT4HEAVY CECS mounted on 2 GALATSI HDVs	B4	30/03/2020	MONO
I project conference organised	D1	30/10/2020	GATALSI
3 contracts with key stakeholders signed – 31-01-2020	D2	31/12/2020	MNLT
Process for the recovery of valuable metals optimised	B3	31/01/2020	MONO
S-LCA Desk study completed	C2	03/02/2020	LOMAR
LIFE CAT4HEAVY CECS mounted on 6 GALATSI HDVs	B4	31/03/2020	MONO
LIFE CAT4HEAVY CECS mounted on 2 GEAM HDVs and on 2 APAM buses	B4	30/04/2020	MONO
Techno-economic analysis of 3 case studies completed	B5	01/05/2020	ALTRAN
II Joint workshops between EU projects organised	D1	30/10/2020	GALATSI
LIFE KPI Webtool first update	C1	01/07/2020	LOMAR
CESG counts 20 members – 30-07-2020	D2	31/07/2020	ALTRAN
List of relevant social indicators and corresponding impact categories completed	C2	30/09/2020	LOMAR





II project conference organised	D1	31/11/2020	GALATSI
Homologation and certifications for Italian and Greek markets achieved	B5	01/12/2020	ALTRAN
LIFE CAT4HEAVY CECS mounted on 3 HDVs of stakeholders	B4	31/12/2020	MONO
Socio-economic Impact Report including LIFE KPI related to socio-economic impact published	C2*	31/12/2020	LOMAR*
LIFE CAT4HEAVY CECS mounted on 10 GALATSI HDVs	B4	31/01/2021	MONO
LIFE CAT4HEAVY CECS mounted on 5 GEAM HDVs and on 5 APAM buses	B4	27/02/2021	MONO
Final conference organised	D1	15/06/2021	GALATSI
III Joint workshops between EU projects organised	D1	30/06/2021	GALATSI
LCI Data for the LCA-LCC models of LIFE CAT4HEAVY technologies	C1	30/06/2021	LOMAR
LIFE CAT4HEAVY CECS mounted on 11HDVs of stakeholders	B4	30/06/2021	MONO
LIFE CAT4HEAVY CECS mounted on 9 GEAM HDVs	B4	30/06/2021	MONO
LIFE KPI Webtool second update	C1	01/07/2021	LOMAR
Life Cycle Sustainability Assessment of LIFE CAT4HEAVY	C1	01/12/2021	LOMAR
10 contracts with key stakeholders signed	D2	01/01/2022	MNLT
10 public entities contacted for LIFE CAT4HEAVY replication	E3	01/01/2022	MONO

\*The typo in the Grant Agreement to be communicated to the monitoring team and to the EASME in the occasion of the official reports/monitoring visits