



LIFE14 ENV/IT/000414
Demonstrating Remote Sensing integration in sustainable forest management
FRESH LIFE

ACTION E2
After Life Plan

Deliverable
After LIFE Plan

Firenze
21/05/2020

1. Project Website	1
2. Scientific research and publications	1
3. Project products dissemination	2
4. Forest Information Systems updating	3
5. Project results up-scaling	4
6. Maintenance of the Project Network	5
After-Life use of EU funded equipment and consumables	6
Three years after-LIFE period Timetable	6

1. Project Website

The project website (available at freshlifeproject.net) was kept up to date throughout the period of the Project, sharing information about the activities carried out by the beneficiaries and the results achieved. All the project products (deliverables, technical reports, publications, posters, videos) are available for download from the website. The blog page is further constantly up to date with information about all the events organized or sponsored by FRESH LIFE's beneficiaries.

As reference point for those seeking information on new technologies applied to Sustainable Forest Management, the website will remain available online also after the end of the projects in order to share information about the long-term efficiency of the methodologies developed. Beneficiaries will upload the results achieved in the management of the demonstration sites giving important feedbacks on the impacts of the project tools and guidelines on it.

The website will also be used to gather all the new projects and the research lines which the beneficiaries will be involved in so that interested people will stay updated on the new trends about Sustainable Forest Management. Furthermore, relevant news on Sustainable Forest Management and Remote Sensing Technologies will be shared on the blog page and in order to maintain the "forum" purpose to stimulate the debate around the issues stemming from the Project's arguments, also the Facebook page will be promptly updated.

The budget to update and maintain the website will be paid by AISF with their own funds. However, all the partner beneficiary will work to update the information on the website and on the Facebook pages.

Expected Results in the five years after-LIFE period:

- monthly up-dating of the project website;
- maintenance of the "forum" activities on Facebook;

2. Scientific research and publications

All the data acquired and elaborated during the project activities has been entered in the Forest Information System, but the high resolution of these data allow to use it for aims that goes over the simple forest management tools.

The amount of data collected, both from field surveys than remote sensing acquisitions, constitutes a

solid basis for scientific research purposes. The availability of such data on five different spots along the Italian territory on one side, and the harmonization of those with the European standards on data collecting and classification on the other, makes them perfect to go deeper in the analysis of the remote sensing potential in estimating variables useful to improve the assessment of forest ecosystems and the knowledge about their role in the climate change scenarios.

Researchers from the three universities beneficiaries will continue to investigate these potentials using of the FRESH LIFE project's database in order to corroborate studies and publications for international journals. Noting to cite the contribution from both, the project and the European Commission, to show the benefits of FRESH LIFE also for the international research's purpose.

Further, the staff of the three universities will guarantee that the methodologies and the innovations developed during the project become an integral part of the curriculum of forest science and management. Classes such as forest assessment, forest planning and forest inventories, will be improved by the inclusion of the results achieved by FRESH LIFE, which will be showed to the students as best practices also allowing them to practice with data and workflows. Thesis, internships and PhD projects will be proposed to the interested students to follow up with the studies of the project.

The three university will publish the paper with own research founds provide by each University to the coordinators of each beneficiary (i.e. UNIFI, UNIMOL, UNITUS).

Expected Results in the five years after-LIFE period

- at least four papers related to the project activities (or data) published on peer reviewed journal;
- integration of the FRESH LIFE methodologies and knowledges within the courses of the three university partners;

3. Project products dissemination

Different dissemination products were produced during the project, the most important are the following:

- Initial Project Brochure: despite being produced during the first part of the project, so with lack of many project results, this brochure was well designed and useful in explaining the

aims and the action of the FRESH LIFE project;

- Rolls-Up: three different rolls-up were produced during the project period in order to explain first the aims and the action carried on and after the results obtained. Useful during the participation at conference and other meetings, these products were used also in the beneficiaries' premises.
- Notice Board: three different kind of notice board were created and located both inside the beneficiaries' premises than outside, in the demonstration sites.
- Report for Policy Makers: is aimed at describing the proposed methodology and the main achieved results in an optimized way for policy makers. This is essential to transmit the benefits obtained by the proposed approach to non-technical experts in order to facilitate the possible future implementation of the proposed methodologies in other local areas or at regional and national level.
- Layman's Report: this report in English and Italian is targeted at a non-specialist audience. It summarizes project activities and results and, while not excluding technical language, its broadly comprehensible to an interested general and non-specialist reader.

All these products will be spread during the events organized by the beneficiaries and available at their premises for all the stakeholders that frequent them. Local beneficiaries will take care of all the external notice board positioned in their demonstration site making sure that they remain visible and usable by those who frequent the area.

All other products like deliverables, technical reports, posters, publications, videos will be available for online download on the project website that will be kept up to date for all the after-LIFE period.

If will be necessary to prints the dissemination materials each beneficiary will use own funds or the prints will be payed by sponsor/or other organizer of the events.

Expected Results in the five years after-LIFE period

- maintenance of the external and internal Notice Board to keep them visible;
- continuous availability of the project products at the partner's premises and events;
- dissemination of the online products through the partner's dissemination channels;

4. Forest Information Systems updating

One of the final results of the project are the Forest Information Systems realized for the

demonstration sites. As for all the decision support system, constantly update of the data is fundamentally in order to keep these tools useful. The first data packs produced during the project needs to be updated as frequently as possible with new layers elaborated by the users or acquired by new field or remote sensing acquisitions.

The local beneficiaries were trained about how to do it in the last months of the project, analyzing the needs of each demonstration sites they will continue the maintenance of the systems in the after-LIFE period. A service of assistance and maintenance of the FIS will be also guaranteed by the university partners related of each demonstration site during these first after Life phases aimed at making the local partners totally independent in the system management.

In all three sites the FIS will be used in the creation of the new forest management plans by providing high resolution data and easy tools for the estimation of the needed variables. This close union between Decision Support Systems and Forest Management Plans will cause important impacts not only in the management of the demonstration sites but also in all the actors of the forestry sector that operate around it. It will be partner's responsibility to disseminate these new technologies among them and increase the knowledge about the high-resolution data implications.

Workshops and seminars will be organized to involve different stakeholders and project dissemination products such as reports, brochures, notice boards, etc. will be available to the beneficiaries' premises in the After-Life period.

The FIS will be updating by the beneficiary with the permanent staff. The infrastructure developed was built to work in any tablet and in any workstation and PC. So, if will be necessary to update for example Computer or Tablet that will be paid with own founds, while the data will be updating with permanent staff of the three universities and the three managers of demonstration sites, so no additional founds will be necessary.

Expected Results in the five years after-LIFE period

- updating of the FIS with data elaborated and collected by the beneficiaries;
- dissemination of the project methodologies and technologies within the local actors of the forestry sector;

5. Project results up-scaling

Fundamental part of the after-LIFE planning will be the up-scaling of the project results. The up

scaling as a dedicated action in our project (Action B.5) so please refer to other products, like the deliverable “Guideline for improving regional and national forest policy tools” to have more details about this topic. The project will be also up-scaling to other forests using the Rural Develop Plans (RDP) funds that can pay the acquisition of the data for forest companies. So, we received already from some of the companies the request of applying the FRESH LIFE tools to their forest areas and we are working with them to apply to innovation RDP measures. Now, for example UNIFI, DEMETRA, AISF and UCVV have already obtained the financing of two different RDP measures (i.e. project) to apply some of the methods develop in FRESH LIFE in Tuscany in five private forests, and in three public forests. UNIFI have also obtained the financing of a project to apply some of the methods in Friuli Venezia Giulia Regions in public and private forests. The RDP measures will be financing the 90% of the action while the 10% will be financed by own funds. In the table we reported the amount of funds received to apply some of the methods develop in FRESH LIFE in other forests areas with different RDP projects already financed. It is important to remark that the FRESH LIFE methodology in those projects will be the base to up-scaling also the tools of FIS and to up-scaling the methodology using also other Remote Sensing Data. All the mentioned projects are started in between January 2020 and March 2020.

B-FOREST beneficiary of FRESH LIFE: UNIFI, UCVV

5	B-FOREST	Sviluppo di un sistema informatico a supporto della Selvicoltura di precisione	Agriambiente Mugello Soc. Coop. Agr.	Agriambiente Mugello Soc. Coop. Agr. Università degli Studi di Firenze - DAGRI BLUEOAK s.r.l. Soc. Agr. Futuro Verde s.r.l. Unione Montana dei Comuni del Mugello Unione di Comuni Valdarno e Valdisieve Unione dei Comuni della Val di Bisenzio	€ 298.170,05	77
---	-----------------	--	--------------------------------------	--	--------------	----

GO- SURF beneficiary of FRESH LIFE involved: AISF, UNIFI, DEMETRA

14	1/2017	SURF	ACCADEMIA ITALIANA DI SCIENZE FORESTALI	72	327.994,90
----	--------	------	---	----	------------

PRI.FOR.MAN beneficiary of FRESH LIFE: UNIFI

ALLEGATO A – Progetto PRI.FOR.MAN.

PIANO FINANZIARIO PRESENTATO (importi in euro)	CAPOFILA	PP1	PP2	PP3	PP4	PP5	PP6	COSTO TOTALE	CONTRIBUTO RICHIESTO
Spese connesse alla costituzione del GO o all'aggiornamento dello stesso	691,00	0,00	0,00	0,00	0,00	0,00	0,00	691,00	691,00
Spese di personale interno	5.082,00	73.919,00	73.135,00	0,00	0,00	0,00	0,00	152.136,00	152.136,00
Consulenze, studi e servizi	29.640,00	12.480,00	0,00	34.986,00	0,00	0,00	0,00	77.106,00	77.106,00
Riunioni e incontri									
Lavoro proprio dell'imprenditore agricolo (max 15% del costo totale)									
Spese di divulgazione dei risultati									
AZIONI PILOTA									
Materiali di consumo (es. reagenti e materiali per analisi, sementi, materiali vegetali, prodotti e altri materiali per prove agronomiche o prove pilota)									
Noleggi e servizi specifici									
Realizzazione prototipi									
INVESTIMENTI MATERIALI									
Acquisto, costruzione, ampliamento e ristrutturazione di fabbricati (max 30% del costo totale)									
Acquisto di macchinari, attrezzature e impianti	34.390,00	0,00	0,00	7.503,00	0,00	0,00	0,00	41.893,00	25.136,00
Miglioramenti fondiari									
Altro (specificare)									
Spese generali collegate agli investimenti quali onorari di architetti, ingegneri e consulenti, spese tecniche (inclusi studi e analisi ambientali), ecc. (max 10% del tipo di investimento)									
INVESTIMENTI IMMATERIALI									
Investimenti immateriali creazione o implementazione di siti web, applicazioni multimediali, acquisizione di marchi, brevetti, licenze, diritti d'autore, marchi commerciali	0,00	0,00	0,00	2.980,00	0,00	0,00	0,00	2.980,00	2.980,00
COSTO TOTALE	69.803,00	86.399,00	73.135,00	45.469,00	0,00	0,00	0,00	274.806,00	
CONTRIBUTO RICHIESTO al lordo del cofinanziamento	56.047,00	86.399,00	73.135,00	42.468,00	0,00	0,00	0,00		258.049,00
DI CUI (EVENTUALE) COFINANZIAMENTO TOTALE DEL GO	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
CONTRIBUTO RICHIESTO AL NETTO DEL COFINANZIAMENTO	56.047,00	86.399,00	73.135,00	42.468,00	0,00	0,00	0,00		258.049,00
Percentuale di compartecipazione finanziaria del GO (eventuale cofinanziamento del GO/Contributo richiesto al lordo del cofinanziamento*100)									0,00%

6. Maintenance of the Project Network

During the project period we worked to create a solid network with realities belonging to different part of the forest sector. Make network with other LIFE project that working on our same topics allowed us to amplify the impacts of our actions by sharing the methodologies proposed and try to replicate it in different places and contexts. After the end of the project we will continue these collaborations with universities and other bodies involved in the LIFE project of our network in order to share results achieved and explore the possibilities to collaborate in other EU founded projects in the future.

With the ongoing projects we will have the possibilities to collaborate by sharing our technologies and methodologies for their actions. Workflows and instruments of our project are already been tested in a lot of different contexts and can allow other project to save a lot of time in the trial-errorphases.

Within our network we have also two important scientific societies and institutions: SISEF (Italian Society of Silviculture and Forest Ecology) that with the Working Group on Forest Geomatics is active in promoting the use of spatial tools and remote sensing for supporting the sustainable use of forest resources; and AIT (Italian Association of Remote Sensing) that is involved for transferring good practices in the use of multiplatform and multi-sensor remote sensing for monitoring forest resources. Both these subjects have a key role in the communication within and outside the forest sector. After the end of the project, due to our strong network activities, they will allow us to continue using their communication channels to disseminate the project results and products by inviting us as speakers at their conference and meetings and by publish news about FRESH LIFE both online than

on magazines.

Expected Results in the five years after-LIFE period

- keep the collaborations started with other LIFE and no-LIFE projects;
- sharing our knowledge and results achieved with topics related new LIFE project;
- participation at the events organized by AIT and SISEF like:
 - XII National Congress SISEF – Palermo, November 2019;
 - AIT 2020 – Cagliari, June 2010;
 - others that will be organized in the years to come;

After-Life use of EU funded equipment and consumables

After the finish of the project the equipment bought within the project actions, together with the consumables remains at the partner’s premises, will continue to be used for the After-Life activities. Computers and other devices will be fundamental to maintain the Forest Information System active and functional because the system is basically installed on them. The partners will take care that both the equipment than the consumables bought within the project are used only to pursue the goals of the Sustainable Forest Management in order to increase the impact of the project results. The eBee UAV will have a fundamental role in the up-scaling of the project results and in the replication activities. Flight campaigns will be also organized within the project network to share methodologies with others EU funded project.

The flight that will be request by some of the forest companies that asked us to apply FRESH LIFE methodology will be payed by them in a context of free market. So, the cost of maintenance of eBEE will be paid directly by the work done in the field.

Five years after-LIFE period Timetable

	2019				2020				2021				2022				2023				2024				
Action	IV	I	II	III	IV																				
1. Project Wesite																									
2. Scientific research and pubblications																									
3. Project products distributions and spreadings																									
4. Updating of Forest Information Systems																									
5. Up scaling the project results																									
6. Maintence of the Project Network																									