LIFE Project Number

LIFE19 CCM/NL/001200

Final Report

Covering the project activities from 01/07/2020 to 30/06/2025

Reporting Date

30/09/2025

LIFE PROJECT NAME: **Life Terra**

Data Project

Project location:	Belgium: All regions Czech Republic: All regions France: All regions Germany: All regions Greece: All regions Italy: All regions Ireland: All regions Denmark: All regions Finland: All regions Croatia: All regions Poland: All regions Slovakia: All regions Serbia: All regions Non-EU: All regions	Malta: All regions Netherlands: All regions Portugal: All regions Romania: All regions Spain: All regions United Kingdom: All regions Austria: All regions Bulgaria: All regions Switzerland: All regions Hungary: All regions Lithuania: All regions Albania: All regions Sweden: All regions Luxemburg: All regions
Project start date:	01/07/2020	
Project end date:	30/06/2025 **Extension date:**	
Total budget:	€ 12,804,283	
EU contribution:	€ 7,038,884	
(%) of eligible costs:	55%	

Data Coordinating Beneficiary

Name of beneficiary:	STICHTING LIFE Terra
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1. Table of contents

2. List of key-words and abbreviations

AB - Associated beneficiary
Web app - Web application
B2B - Business-to-Business
B2C - Business-to-Consumer
CB - Coordinating beneficiary
CFC - Carbon footprint calculator
CINEA - Climate, Infrastructure and Environment Executive Agency
CM - Compliance Manager
COA - Collaboration Agreement
CO2eq - Carbon dioxide equivalent
CRCF - Carbon Removal Certification Framework
DIAS - Data and Information Access Services
DG - Directorate-General
EC - European Commission
EU - European Union
EUTPD - European Tree Planting Day
FTE - Full-time equivalent
GA - Grant Agreement
GDPR - General Data Protection Regulation
IWB - Interactive Whiteboard Lesson
KPI - Key Performance Indicator
LCA - Life Cycle Assessment
LIFE - LIFE Programme
LSA - Land Suitability Analysis
LT - Life Terra
MEP - Member of the European Parliament
MoEs - Ministries of Education
MOOC - Massive Open Online Course
MOU - Memorandum of Understanding
MTR - Mid Term Report
NGO - Non-Governamental Organisation
NDVI - Normalized Difference Vegetation Index
PA - Partnership Agreement
PDF - Portable Document Format
PRA - Provisioning Agreement
SCM - Steering Committee Meeting
SDC - STEM Discovery Campaign
SETT - School Education Transformation Technology
SM - Social media
SME - Small-Medium Enterprise
STEM - Science Technology Engineering and Mathematics
TL(s) - Terra Leader(s)
TM - Terra Mission
UAV - Unmanned aerial vehicle
VAT - Value-added tax
V1 - Version 1 / V2 - Version 2
VI - Vegetation index
VHR - Very high resolution
WG - Working group
Y1 / Y2 / Y3 / Y4 / Y5 / Y6 - Year 1 / 2 / 3 / 4 / 5 / 6

Life Terra's Consortium members

ANYH - Associação Natureza e Homem
BRIGHT - Bright Vibes
CERTH - Centre for Research and Technology-Hellas
COMM EUROPE - Communicazione Europe
CYBELE - Cybele
EFE - Agencia EFE
EURACTIV -EURACTIV Media
EUN - European Schoolnet
GYNZY - Gynzy
IFER - Institute of Forest Ecosystem Research Monitoring and Mapping Solutions
LEGAMB - Legambiente
LLC - Land Life Company
STICHTING - Stichting Life Terra
TRANSFER - Transfer Consultancy
UB - University of Barcelona
VIVEROS - Viveros Fuenteamarga
VOLTERRA - Volterra Ecosystems

3. Executive Summary

This report presents the final results, achievements, and lessons learned from the Life Terra (LT) project (06/2020 - 07/2025). Its core objective was to build a pan-European movement taking tangible action against climate change (CC) through tree planting and environmental education. Given the huge challenges to build up a team, network and organise planting activities all around Europe, at the same time achieving sufficient co-funding from the private sector, we are very proud of our achievements so far. We invite the reader to watch our 5-year recap video with highlights of the project.

Activities were structured around four working groups (WG): Technology, Implementation, Education, and Communication. Despite major global challenges, the project delivered its demonstration actions, replicated across most European countries, and laid the foundation for a lasting environmental legacy.

Regarding **Technology**, actions A.1, C.1, and D.1 focused on developing European technology for geolocating planted trees, the online platform, and monitoring systems. The platform is fully operational, streamlining backend operations and improving user experience. A citizen science system and a cost-effective remote sensing solution enable scalable plot monitoring. Biochar trials confirmed its potential to partially replace peat in seedlings, and the [redacted] prototype was successfully developed and tested in multiple countries.

In **Implementation**, action A.2 and C.2 successfully scaled up partnerships across Europe. The Terra Leader (TL) network was significantly expanded, with hundreds of leaders trained and a wide network of organisations collaborating with LT. For actions A.3 and C.3, citizen planting events surpassed initial targets, engaging tens of thousands of volunteers in over a dozen countries. Under action C.5, professional plantings were executed across hundreds of sites, and the network of "Partner trees" grew substantially. In total, LT has registered over 28.7M European trees on our platform.

The **Education** component (Actions A.4 and C.4) successfully launched the LT Education Package, "Terra Mission" (TM). Its Massive Open Online Course (MOOC) engaged many teachers, providing them tools for hands-on climate education. Materials were translated into 5 languages, reaching over 420,000 students.

Communications WG (E actions) successfully executed all dissemination activities, reaching a global audience of over 15 million citizens. Through strategic partnerships, a strong social media (SM) presence, and features in major media outlets, the project raised awareness about climate action and citizen engagement, solidifying the LT brand and LIFE programme across Europe and beyond.

Like any project we faced multiple challenges, like **COVID-19**, the **war in Ukraine**, and an **economic recession,** which hindered fundraising and reduced replication (Action C.7). Even so, LT was replicated in 26 EU Member States, a first for LIFE, and over 50 countries worldwide.

Fundraising under C.6 secured almost **€5M from the private sector**, likely the largest external co-funding in LIFE's history, helping mitigate though not fully close the funding gap. To diversify income sources, LT pioneered **payment for ecosystem services** where nature restoration projects in Portugal, Spain and France were externally certified for **Carbon Removal credits** and Biodiversity credits. This helped us raise €250k so far and create a strong basis for the upcoming carbon removal certification framework (CRCF) legislation. It is STICHTING's aim to develop these activities in the **After-LIFE period** and establish itself as an important pan-European provider of high quality Carbon removal credits, together with more innovative instruments like Biodiversity, Water and Soil credits.

LT and its partners now account for 46% of all trees reported under the European Commission's (EC) 3 Billion Trees Pledge. Its 100+ partner network offers a solid base for future expansion, and other forms of collaboration. These achievements and lessons learned are embedded in the After-LIFE plan, positioning LT to continue restoring the planet, one tree at a time.

4. Introduction

The Life Terra project has achieved significant results in its mission to combat CC and restore European ecosystems. The following is a summary of its accomplishments during both the demonstration and replication phases:

Demonstration Phase

Develop a unifying platform & App: The LT digital platform was successfully developed and made operational, with thousands of users registered.

Plant, geotag & monitor trees: The project has successfully planted over 1.35 million trees during the demonstration phase, restoring approximately 3,000 ha of land, estimated to capture over 17,223 tons of CO2eq by the end of the project.

Provide proof-of-concept for innovative methods: Biochar trial protocols were developed, and the prototype TreeRover planting machine was successfully tested in various environments.

Generate external funding to finance replication independently: The project secured over €5M in private funding, averaging 65% year-over-year growth, which expanded its reach and established a strong foundation for continuation.

Replication Phase & Overall Project Achievements

Expand the Life Terra platform: The platform was continuously improved with new features launched throughout the replication phase.

Plant, geotag & monitor trees: The project has successfully registered over 29.7 million European trees on its platform, restoring approximately 39,700 ha of land, estimated to capture over 421,000 tons of CO2eq by the end of the project.

Train European nurseries in sustainable practices: While biochar protocols were developed, challenges prevented it from being implemented on a large scale.

Deliver STEM-based sustainability education: The TM was used in 35,115 classes, surpassing the initial target of 14,000.

Achieve widespread dissemination and awareness: The project achieved more than 3 billion potential impressions through its dissemination materials and press mentions.

Engage citizens and train Terra Leaders: Over 120,000 people participated in planting events. A network of over 1,578 individuals and 84 collaborating organisations was established across Europe.

Change behaviour in registered individuals: Post-activity surveys showed that 88% of students demonstrated an intention to change their behaviour.

Create green jobs: 70 individuals were specifically hired to the project among its beneficiaries, surpassing the initial target of 50 jobs.

Receive Press mentions: The project received 2,587 press mentions (3,000 target).

Provide stimulus to the green economy: The project has generated a stimulus of €48.2 million for the green economy.

5. Administrative part

Project Management

The project management process was structured around four thematic WGs: Technology, Implementation, Education, and Communication. This working method proved highly effective for managing a large and diverse consortium of 16 partners across eight countries. It allowed partners to focus on actions aligned with their specific expertise, ensuring efficiency and quality of work, while the 14 Steering Committee Meetings (SCMs) provided an essential forum to align all partners on the project's higher-level objectives. These meetings, attended by representatives from all partners, were held both virtually and in person at key locations across Europe.

The consortium's framework was defined in a Partnership Agreement (PA) detailing partner roles in compliance with the LIFE Grant Agreement (GA). [redacted]. The Project Director, Sven Kallen, led the project, supported by the WG leaders and dedicated staff. The Compliance Manager (CM) from Transfer Consultancy provided administrative and financial oversight, using a specialised online tool to monitor progress and manage reporting. A deviation occurred in June 2022 when one of the ABs paused their participation; however, the coordinating beneficiary (CB) successfully absorbed their tasks, ensuring project continuity.

Communication with the Agency and Monitoring Team

Communication with the EC and the ELMEN monitoring team has been consistent throughout the project. The feedback provided by the monitors was generally valuable and constructive in helping the consortium meet its objectives. [redacted]

The final visit from our CINEA Project Advisor in June 2025 was highly appreciated and provided valuable insights into the Commission's perspective. Throughout the project, we have maintained a formal line of communication and have responded to eight official letters from CINEA.

6. Technical part

6.1 Technical progress, per Action

Action A.1 - Activate EU Tech

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*31/12/2020*	*Actual end date:*	*31/03/2021*

A.1.1 Copernicus database and cloud services

CYBELE reviewed existing Data and Information Access Services (DIAS) and cloud-based services for sourcing and managing satellite imagery, analyzing their suitability for project needs. Based on specific evaluation criteria, 4 alternatives were selected as the most suitable options. Further details of the analysis and selection process are provided in Annex 02.

A.1.2 Platform development

Selection of developers

At the beginning of the project, STICHTING and VOLTERRA drafted a platform proposal detailing envisaged features, after which the whole consortium was asked to refer potential developers and we finally received three offers. BitFactory was selected as the platform developer by a team from STICHTING, LLC, and VOLTERRA for phase 1. Initially planned features included “tag your tree” and “personal dashboard,” but additional features - such as “tree adoption,” “gift trees,” and “tree queue” - were added to strengthen the platform and support funding efforts.

Development

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Development began in September of 2020 with a Discovery phase, followed by the launch of the website on October 29. On January 18, 2021, a test version of the web app - including the “tag your tree” functionality - was made available internally to

STICHTING for testing in real environments. The web app was officially launched on March 15, 2021, after several testing and feedback cycles.

Post-launch, some functionality issues were identified. STICHTING continued working closely with the developers to resolve these issues and improve both the web app and the website, making them more stable and user-friendly. The deliverable "Prioritization plan" was finalised based on early project experience to guide future development, with the pace and selection of future features to be determined based on emerging project needs and user demand.

A.1.3 Data Management

Together with the launch of the website STICHTING elaborated a privacy policy for the use of our web app and website. The privacy policy and the terms of use of the web app and website were validated by an external Law firm that helped LT pro-bono.

A.1.4. Definition of land suitability models

To guide species selection and site planning, LT initially planned to develop its own Land Suitability Analysis (LSA) tools. However, early in the project, LLC identified the Restor platform, developed by ETH Zürich's Crowther Lab in collaboration with Google, as a promising and more advanced initiative. Rather than develop a competing system from scratch, LT entered into a Memorandum of Understanding (MOU) with Restor [redacted].

[redacted]. To avoid project delays, STICHTING and IFER developed and made available on 16 February 2022, an internal tool that generates preliminary species lists based on area-specific inputs. This tool was shared with all implementation partners and has effectively supported planting activities.

In parallel, the UB developed a "Framework for Species Selection", which, alongside the internal tool, supports implementation partners in making informed decisions about species selection. Additionally, the UB created complementary tools, including a bioclimate classification tool that accounts for CC projections and guidelines for meeting species selection quality criteria, and prepared a comprehensive tutorial on how to use various tools for detailed species planning, now available on the LT website (See the framework and the tools developed in Annex 03). It is important to note that the level of detail required in species selection varies depending on the type of planting, for example, a school garden with a few trees requires a different approach than a large-scale restoration project in a degraded area.

Over 800 planting sites have now been uploaded to Restor, and LT benefits from enhanced ecological data, historic satellite imagery, and increased project visibility (see action D.1). In conclusion, while the collaboration with Restor did not replace the need for internal tools, it has strengthened LT's digital ecosystem. The tools developed in parallel were sufficient to support implementation partners throughout the project, and are now openly accessible for broader use.

Action A.2 - Find EU talent

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*31/12/2020*	*Actual (or anticipated) end date:*	*30/06/2021*

A.2.1. Hire Employees

Date	Name	Role

A.2.2. Terra Leader Call

- **Drafting of the "Volunteering Opportunity" call**

LEGAMB developed the Volunteering Opportunity call (see Deliverable A.2 "Draft Volunteering Opportunity Call"), which included a general introduction to the LT project, its objectives, and the role and expectations of volunteers (TLs). The call also outlined the training and support that would be made available to volunteers. LEGAMB coordinated an online meeting in May 2021 with all ABs to explain the use and promotion of the document and clarify any doubts. After that, the call was shared with ABs and disseminated through various networks and initiatives, including during the launch of the project Youth4Planet in June 2021 by LEGAMB. ABs also leveraged their own networks and channels to promote the call locally.

- **Identification of Volunteer Organisations and NGOs**

Given the different realities and volunteering landscapes in each demo country, the engagement strategy was adapted per AB, while maintaining the overarching goal: to

identify volunteering networks and engage with committed individuals and organizations capable of supporting and organizing planting events. This laid the foundation for the training activities foreseen in Action C.2. Thanks to these early efforts, ABs identified over 270 organisations and entities of different kinds in six countries with potential to collaborate and support the project's scale up (more details in Annex 05). These early efforts marked the beginning of the LT network of partner organisations (see Action C.2 and C.7), which played a central role throughout the project and contributed significantly to the growth of the LT platform and restoration impact across Europe.

In **Italy,** LEGAMB identified 12 organisations and contacted potential candidates through its volunteer network. They also established contact with the Alliance of European Voluntary Service Organisations.
In **Spain**, VOLTERRA identified 41 Non-Governamental Organisations (NGO) and volunteer organisations that could collaborate and support activities in Spain and Portugal. In total, 78 stakeholders including NGOs, municipalities, and individuals were contacted. As a result, early interest from institutions led to an initial Engagement Session in Nov 2020 with 68 participants, followed by 5 in-person TL training sessions (see Action C.2).
In **Germany**, STICHTING identified 26 organisations and initiated contact with two of them. As the STICHTING German Team was being established, efforts focused on collaborating with established local actors. The strategy was to empower organizations to host planting events and train volunteers locally, mirroring the approach in Spain
In **Greece**, CERTH developed a formal application for interested volunteers. In total, 21 organisations were contacted and online dissemination was carried out.
In **The Netherlands**, STICHTING contacted 23 forestry and other organisations to gain a better understanding of the national reforestation efforts. As most land is publicly owned and managed, efforts focused on establishing cooperation with public entities and their existing volunteer networks. Instead of launching a parallel volunteering call, the strategy was to engage with trusted forestry and conservation groups, leveraging their experience, local knowledge, and trusted relationships with landowners.
In **Portugal**, ANYH, being embedded in a network of NGOs, was well positioned to reach out to volunteers and access local volunteer networks. Their strategy focused on activating these existing networks around foreseen citizen events to start building a group of committed individuals. As a result 155 organisations were identified.

In Y1, the crucial role of these organizations and NGOs in accessing volunteers became evident. The volunteer strategy was adjusted to prioritise engagement and partnerships with these entities to facilitate organising planting events and training individuals.

A.2.3. Design Training Course
STICHTING, with support from LEGAMB, developed the first version of the TL training materials, a comprehensive manual aimed at preparing individuals and organisations to lead LT planting events. The manual included a project overview, roles and responsibilities of volunteers, basic environmental knowledge, and practical tools (i.e., event agendas, checklists, and tutorial videos produced by BRIGHT). This version is provided in Annex 06. Translations of training materials produced by VOLTERRA, STICHTING, and CERTH in ES, NL, and GR, respectively are included in Annex 07.

The training materials translation was postponed to avoid duplicating efforts, as an updated version of the manual was going to be developed under Action C.2 in Y2, incorporating new tools and lessons learned from Y1.

Action A.3 -Prepare for citizen planting

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*31/12/2020*	*Actual (or anticipated) end date:*	*30/06/2021*

A.3.1. Event Logistics

Event logistics remained one of the most complex aspects of project implementation, requiring continuous adaptation throughout the different planting seasons. At the beginning of the project the deliverable "Event Logistical Plan" was developed to guide the organization of citizen planting events in Y1. A second version, V2, of the plan was later prepared to reflect the platform functionalities.

During the first years, the consortium used a combination of manual tools, mainly Google Sheets, complemented by the LT platform. This system allowed flexibility to manage last-minute changes, while platform improvements progressively incorporated new functions for event organisation. By the end of the project, most logistics were centralised through the platform, supported by a set of standardised documents.

To ensure consistency and quality across events, a comprehensive set of supporting materials was developed, translated, and made available to ABs and stakeholders. These included practical guides (such as *How to Plant a Tree*, *How to Use a Hoe*, and *Technical Aspects of Tree Planting*), templates and planning tools (like the *Planting Plan Proposal*, *Event Checklist*, *Agenda for Planting Events and Event Waiver*), landowner-facing documents (including the *Land Inventory*, *Collaboration Agreement (COA)*, and *Land Preparation Guidelines*), as well as technical references like the *Species Selection Summary*. A complete list of these materials and their last updated versions were bundled in Annex 08. Its usage evolved during the course of the project and was key to build capacity and alignment for event organisation amongst ABs, landowners, external partners, NGOs, and volunteers, reducing STICHTING's workload while maintaining planting quality. Some of them were included in the TL Manual developed in 2021 (see Action A.2). The adoption of these tools, combined with the improved platform functions, enabled LT to manage both consortium-led and partner-led events more effectively. They facilitated a consistent flow of information before and after events, streamlined citizen engagement, and created a replicable system for stakeholders to organise events independently (TL - see Action C.2).

A.3.2. Human Capital

In line with the project proposal, implementation ABs were expected to lead planting events during the first years. To support this, a practical training session was organised by LEGAMB, with support from VOLTERRA in Nov 2020. Due to COVID-19 restrictions, the session was held online and provided guidance on organising citizen planting events, serving as a first step in building the implementation teams' capacity.

A.3.3. Land

The initial land strategy focused on leveraging ABs' existing network. Demonstration sites for the project were confirmed in each participating country and the first citizen events (C.3) were held during Y1, despite the challenges imposed by the COVID-19.

To formalize land access, a standard COA was developed by STICHTING, which was then translated into local languages by the implementation ABs. These agreements were signed with the landowners of all confirmed demo sites and other landowners that collaborated during Y1. Moreover, a land inventory was also developed in order to specify the basic characteristics of new potential planting areas.

Landscouting efforts done by Implementation ABs during Y1 resulted in the identification of 24,236.95 ha of potential planting land across Spain, Portugal, Germany, Greece, The Netherlands, Italy and Czech Republic.

A.3.4. Trees &Tools

In the first years of the project, seedlings were procured directly from VIVEROS or other local nurseries. Given the ambitious planting targets for Years 4 and 5, Provisioning Agreements (PRAs) were initially foreseen to secure sufficient supply. Nevertheless, the consortium decided not to sign such agreements, as doing so would have created a financial risk by potentially obligating partners to purchase large quantities of seedlings. Later, once the planting targets were officially reduced through the amendment, it became clear that such agreements were no longer necessary, as the revised objectives could be met through existing nursery contacts without committing to large-scale procurement arrangements.

The Species selection Summary (see Annex 08) was prepared based on the Criteria of Species Selection made by UB and shared with the implementation ABs to support the species selection. Implementation ABs also used the tool developed by IFER and STICHTING (more info in action A.1) to further support species selection.

Regarding tools, in the preparation phase it was decided to work on a case-by-case basis (many landowners had their own tools) and also check what was needed per country and how logistics could be organised in different contexts by different ABs.

A.3.5. Event costs & Payment/Reimbursement Protocol

During the first year, reimbursements were handled manually due to the initial phase of the TL strategy. Similarly, payments to nurseries were managed manually on a case-by-case basis. As the project progressed, the approach shifted from engaging individual leaders to partnering directly with organisations to lead planting events, removing the need for individual reimbursements. While no fully automated payment protocol was needed, digital tools in [redacted] and [redacted] were introduced to make such payments easier and more efficient.

Action A.4 - Develop Educational Pack

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*31/12/2020*	*Actual (or anticipated) end date:*	*31/06/2021*

A.4.1. Evaluation of current curriculum

EUN conducted a review of existing educational materials (Annex 09) to analyse curricula requirements related to sustainability and CC education. Findings supported the project's educational materials development, later known as Terra Mission (TM), ensuring that the selected educational contents are demanded, suitable for various learning contexts, and easily integrated into European Union (EU) schools curricula.

A.4.2: Decide, Design and Structure Basic Contents

The proposal foresaw hosting TM on a new LT Academy portal. However, for legal, technical, and practical reasons, TM was hosted on GYNZY's platform, providing an integrated, GDPR-compliant and user-friendly environment. A data processing agreement between STICHTING and GYNZY was signed (Annex 10) to formalise this arrangement, and a subpage directly linked to TM was created on the project's website.

Based on EUN's review, GYNZY developed TM's blueprint, setting learning goals and the didactic framework, designing visuals, and creating Interactive Whiteboard Lessons

(IWL) using the Ember framework. The initial English version, V1, of the lesson plan was later revised into V2 following UB's and STICHTING's advice. See Deliverable A.4 "First version of Lesson Plan in English" for more details. This action experienced slight delays due to the surge in demand for online teaching materials during Covid-19. Also, the scope and quality required for TM demanded extra resources (developers, designers, translators, illustrators) and scientific input from UB to ensure accuracy.

Therefore, and considering 1) the workload needed to create all materials, 2) teacher's expectations, and 3) project's timeline, it was agreed to focus on finalising two pilot themes (CC & Energy) in EN and NL for two age groups (8-10, 11-14). This solution allowed ABs to test education materials with their teacher network (see C.4). Each theme includes a teacher manual, worksheet, and an interactive lesson built up on ready-made but customisable slides. Pre- and post-surveys were included to assess students' knowledge and attitudes; see Deliverable A.4 "Student Questionnaire" for more details. Teachers can interact through GYNZY's collaborative tools as well as via EUN's network and communication channels (newsletter, blog, email, SM, etc.).

A.4.3: Engage schools for Demonstration & Teach the teachers
In order to test the pilot themes, EUN identified from its network 65 teachers from 26 countries interested in testing the education materials in English. In parallel, GYNZY found 8 teachers in the Netherlands who showed interest in trialling the Dutch version.

Meanwhile, EUN organised two online teacher training workshops within the eTwinning programme (see Annex 11) and the STEM Discovery Campaign (SDC) 2021 (see Annex 12) to explain how the materials could be used and adapted to school curricula. STICHTING and UB participated to train and encourage teachers to organise school planting events.

Thanks to VOLTERRA, STICHTING and CERTH, the first planting events involving schools took place in Spain and Greece in Y1. Once completed, TM pilot themes were shared with event participants and schools in other countries for future engagement.

A.4.4: Class Project, Contest & eTwinning like exchange
Based on technical advice from EUN, GYNZY, and UB, STICHTING outlined a preliminary roadmap for the project's educational strategy. See Deliverable "Roll-out plan for Class Project, Contest & eTwinning" for more context.

Action C.1 - Build digital infrastructure

Foreseen start date:	*01/01/2021*	*Actual start date:*	*01/04/2021*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

C.1.1. –Platform's deployment
Following the launch of Phase 1, STICHTING conducted a comprehensive evaluation and identified two major limitations: the tree map's inability to load due to the high volume of data, and inconsistent behavior in the "tag your tree" feature - especially across different phone models. Additionally, CINEA flagged concerns regarding procurement procedures, prompting a formal public tender process.

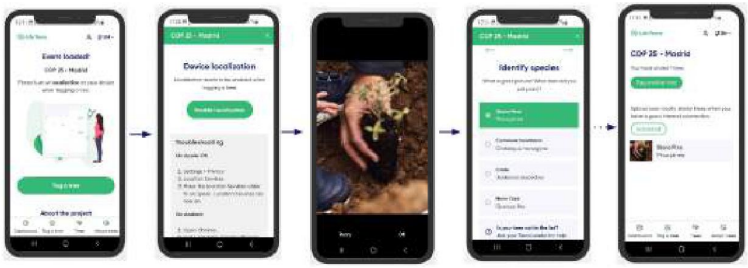
As a result, for Phase 2, an open tender was published in 2 specialized platforms. On 15 June 2021, STICHTING selected a new development partner, De Voorhoede. The transition required a full platform migration, done between June and October 2021.

The new platform infrastructure brought substantial improvements. Now hosted on [redacted] with a [redacted] database, the platform uses [redacted] - a headless content management system (CMS) - and is deployed via Vercel for automatic scalability. Media assets are hosted on [redacted], and payment capabilities expanded with [redacted] and [redacted] joining [redacted].

The LT platform serves as a comprehensive tool to facilitate engagement in reforestation and climate action efforts, providing robust functionalities for individuals, organisations, and companies.

Tree Tagging
The platform incorporates a mobile-centric "Tree Tagging" feature, empowering users to record newly planted trees directly from their smartphones. This involves:

- Scanning a QR code or accessing a dedicated link to load event information.
- A secure login and email verification process.
- Requiring device localization and camera access to capture accurate data.
- Taking a photo of the tree from directly above.
- Identifying the tree species from a predefined list.
- The ability to manually adjust the tree's precise location on a map.
- Upload locally stored tagged tree data when a stable internet connection is available, ensuring data integrity even in remote planting locations.



Personal Dashboard
Each user is provided with a personalized dashboard offering:

- **Counters and CO2 Estimations**: Displays the total number of trees adopted by the user and provides estimated CO2eq capture potential over a 40-year period, with minimum and maximum projections. It also presents aggregated global counters for trees on the platform, those supported by LT, and those planted by other planting partners.
- **Geographic Visualization**: An interactive map showcasing the exact locations of all trees associated with the user.
- **Carbon Footprint Comparison**: This unique feature allows users to compare the CO2eq capture potential of their trees against the emissions generated by their regular activities, such as commuting by car or plane. Users can input their average weekly travel distance for a personalized comparison. The dashboard also provides a direct link to the LT's carbon footprint calculator (CFC).
- **Settings and History**: Users can manage their personal profile and review a detailed history of all their tree adoptions and gifts made through the platform.

Group Dashboard
Designed for collectives, including companies and organizations, the Group Dashboard provides a transparent way to track their collective reforestation efforts:

- **Public Accessibility**: All group dashboards are publicly accessible via a unique URL, promoting transparency and engagement.
- **Tree Relationship Types**: Trees are categorized by their relationship to the group: "Adopted" (group covered all costs), "Gifted" (group covered costs and gifted to another entity), and "Sponsored" (group covered a portion of the costs).
- **CO2eq Estimations**: Similar to personal dashboards, groups can view the estimated CO2eq captured by their adopted trees, with adopted trees being the sole basis for CO2eq calculations to prevent double-counting.
- **Hierarchical Levels**: The dashboard supports up to two levels of hierarchy, enabling organizations to filter and view trees by internal divisions (e.g., by country or department, as demonstrated by the EY dashboard example).
- **Sharing and Embedding**: Groups can easily share their dashboard via SM (Facebook, Twitter, WhatsApp) or embed a dynamic counter snippet directly onto their own websites, offering two distinct embedding versions.

Adopt a Tree (Individual)
The platform streamlines the process for individuals to adopt trees:

- Users can select the desired number of trees for adoption.
- The option to choose a preferred country for tree planting is available, with a fallback to other locations if the chosen country is unavailable.
- Gifting Functionality: Users can adopt trees as gifts, providing recipient details, selecting from various gift purposes (which customize the voucher design), personalizing the voucher with a message, and choosing whether to send the voucher directly to the giftee or receive it themselves for later delivery.
- Subscription Options: Users can opt for one-time donations or set up recurring monthly or annual contributions.

Company Adopt a Tree
A dedicated workflow exists for corporate and organizational adoptions, designed to facilitate larger-scale contributions and invoicing:

- Companies access a specific adoption form tailored to their needs.
- They can choose to adopt trees for their own company's portfolio or gift them.
- Flexible gifting options include selecting the number of trees per voucher, choosing to receive vouchers as ready-to-print PDFs or just QR codes for custom designs, and selecting the voucher language.
- Companies provide their preferred country for the tree, organization name for dashboard display, and VAT number for invoicing.
- Payment options include credit card or bank transfer.

Redeem Tree Vouchers
The platform simplifies the redemption of gifted trees:

- Recipients can redeem their trees by clicking an "Open your gift" link or scanning a QR code on the voucher.
- The unique voucher code is automatically pre-filled, which are, after submission, then reflected in their personal dashboard.

Events Overview: This acts as a centralized listing, displaying both upcoming and past events and also per country. It offers a quick glance at the breadth of planting activities and allows users to discover events relevant to their interests.

Event Page: This is one of the most used features, serving as a dedicated hub for each individual planting event. It provides information for participants, partners, and the public. Key features and underlying functionalities include:

- **Date and Time**: Scheduling information.
- **Number of Trees Planted**: Total number of trees planted at the event.
- **Tree Species**: Information on the types of trees that will be planted at the event.
- **Event Description**: Purpose, goals, and significance of the event.
- **Photo and Video Galleries**: Visual documentation of the event, enhancing engagement and demonstrating impact.
- **Host/Organiser Information**: Details about the entities involved in the event.
- **Plot Section**: Detailed insights into the planting location:
    - **Satellite Monitoring**: Offers last 12 months of Normalized Difference Vegetation Index (NDVI) measurements based on Sentinel-2 data:
        - A blue line indicating the 10-day moving average NDVI
        - A dashed line representing the monthly average minus two times the standard deviation from past years, serving as a threshold.
        - Color-coded points (Green: likely healthy planting; Red: likely unhealthy planting; Yellow: attention needed, but not necessarily healthy or unhealthy) to indicate planting health.
    - **Historical High-Resolution Images**: A timeline displays historic high-resolution images of the plot.
        - **Restor Platform Integration**: Users can directly access the Restor platform for more information about the plot. If Restor data is not available, an interactive map with the plot clearly marked will still be shown.
    - **Total Trees Planted and CO2 Estimations**: Displays the total number of trees (in which we have Carbon estimations) planted within the specific plot and their estimated CO2eq sequestration over time. This range is calculated according to a methodology developed by the LT consortium, with a link provided for further details on this methodology.
    - **Current Use and Objective**: Details the current land use and the specific environmental objectives of the planting in that plot.
    - **Updates and Field Visits**: Links to updates and reports from field visits to the plot, providing transparency and monitoring information.
    - **Citizen Monitoring Tool Link**: Directs users to the platform's citizen monitoring tool, along with a tutorial on its usage, encouraging continuous engagement (more information available in action D.1).

Tree Page
Every planted tree within the system has its own unique "Tree Page": This page serves as a dedicated digital record for an individual tree, potentially displaying its species, planting date, location, associated events, and monitoring data.

As foreseen in the GA, the website was intended to be translated into several languages; however, STICHTING made the strategic decision to limit translations to English, Spanish, and German, as these covered the largest markets where LT was active. Maintaining the website in these three languages already required substantial resources, and expanding further would have been unsustainable. Moreover, with the significant advancement of automated translation tools, users can now easily access the content in their preferred language without the need for additional translations.

These integrated features collectively enable the platform to serve as a robust and user-friendly tool for promoting and tracking global reforestation efforts, fostering citizen engagement, and providing valuable insights into environmental impact. For more details on all features please see the **Deliverable "C.1 - How to use tutorial**".

C.1.2. – Integration & testing of critical functionalities

C.1.2.1. Preparation of a planting event

One of the most significant challenges encountered during the LT project was the effective structuring and standardization of information surrounding planting events. This challenge was present from the initial planning stages, demanding a clear and comprehensive method for reporting both pre and post-event details.

Over the project's lifespan, this process has been significantly streamlined through a strategic evolution of our reporting tools. Initially, we relied on spreadsheets, then progressed to a more programmatic flow using DATO, which offered improved organization. The most recent and pivotal development has been the implementation of a dedicated online tool (i.e. for teachers). This advanced platform was specifically developed to empower both internal LT members and external stakeholders, such as schools and NGOs, to easily report comprehensive event information, covering both pre-event planning and post-event outcomes. This dedicated tool not just guarantee a uniformity of the data but also enhances our event reporting capabilities by:

- **Automating Event Communication**: The system automatically sends event links and reminders, enhancing participant engagement and logistical efficiency.
- **Integrating Reporting with Internal Systems**: Events are reported through our internal systems, reducing manual data entry and improving data consistency.
- **Fostering External NGO Engagement**: The tool has successfully allowed for the active engagement of external NGOs in reporting their planting activities.
- **Supporting Teacher Participation**: It has also enabled teachers to seamlessly report events conducted as part of the TM, broadening our reach.

A key feature of this system is its adaptability, with the tool's interface and required inputs dynamically adjusting based on the stakeholder. For instance, a school planting event reported by a teacher utilizes a simpler interface, tailored to their specific needs, compared to the more comprehensive reporting required from an internal LT member. This approach ensures ease of use while capturing necessary data effectively.

C.1.2.1. Geotagging & monitoring

The project has significantly improved its mobile-based "Tree Tagging" feature. Early challenges, such as inconsistent GPS accuracy and slow uploads in low-coverage areas, have been addressed, making the process faster, simpler, and more accurate. Users can now tag trees directly from their smartphones, with data stored locally and uploaded once a stable connection is available, ensuring reliability in remote areas. These enhancements deliver high-quality data crucial for project monitoring. For details on the developed monitoring features, see action D.1.

C.1.2.1. Donations

The project's donation approach has evolved to boost fundraising and engagement. Initially, the web app enabled secure micro-donations for adopting or gifting trees via [redacted]. This was expanded with improved user experience, subscription plans, and personalized gift vouchers. A major innovation was the introduction of "tree pledges," allowing donors, employees, suppliers, or clients to commit trees over time, supported by a dedicated Pledge dashboard that strengthened relationships and network

engagement. Additionally, the LT platform integrated with external systems, such as [redacted], [redacted], and [redacted] solutions, broadening fundraising and simplifying Tree Voucher requests for companies. These integrations have been key to scaling fundraising efforts efficiently (see C.6 for more details).

C.1.3. Data Management

Initially, the platform was hosted by a developer agency in The Netherlands. To ensure greater scalability, a critical decision was made to migrate to a cloud hosting utilizing [redacted], on one of their European servers. This server now hosts our [redacted] database, which contains all essential project information related to trees, events, and users (payment information remains securely hosted by [redacted]). Furthermore, the project's website is now hosted by [redacted], which provides automatic scalability, significantly improving the overall performance and reliability of the system.

C.1.4. Approval protocols

Following the Amendment approval, the project's new targets did not necessitate the full automation of payments for third parties, as the required scale for such a system was not met. This was also influenced by a strategic shift from engaging individual TLs to collaborating with NGOs (further detailed in Action C.2). Nevertheless, significant improvements were made to internal accounting and operational efficiency. The adoption of [redacted] notably enhanced the traceability and speed of invoice processing and payments, thereby increasing overall internal efficiency. This adaptation ensured that while full external payment automation was not realized, the project's financial management remained robust and continuously optimized.

C.1.5 Carbon footprint calculator (CFC)

The project successfully developed a **CFC**, a tool designed to estimate individual annual greenhouse gas (GHG) emissions and provide recommendations for reduction, including the number of trees required for offsetting. This development was a collaborative effort, with CERTH creating a preliminary flowchart, UB contributing to the questionnaire design and literature review and STICHTING integrating with LT's platform.

The calculator applies a straightforward approach, relying on user-provided data. Key carbon-intensive activities investigated and included in the calculation are: (i) transport, (ii) household, including building construction, energy consumption, and water use (iii) dietary habits, (iv) other goods and services purchased, and (v) public services. A comprehensive questionnaire was designed, combining single and multiple-choice questions related to personal lifestyle and travel choices. GHG emissions from each activity are evaluated using user-defined parameters coupled with specific emission factors from CO2 emission databases and relevant literature.

Typeform was selected to host the LT CFC due to its functionality and ease of embedding/sharing on the existing LT website, also facilitating data collection and analysis. UB also has studied how the LT Calculator performed compared to other calculators available. Following initial Version 1 workshops and analysis, findings were used to inform the development of Version 2 of the calculator. Subsequent V2 workshops and large-scale data collection through integration into educational settings at UB have been conducted, ensuring continuous refinement and robust data collection for the CFC. More details on the analysis over the CFC can be seen here. Also, the CFC can be accessed directly here.

Action C.2 - Engage EU talent

Foreseen start date:	*01/01/2021*	*Actual start date:*	*01/01/2021*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

C.2.1 Grow STICHTING team

[redacted]

C.2.2 Improve Terra Leader Training Materials

Building on early experiences, the TL training materials were revised and expanded by STICHTING to improve clarity and usability. Updates included new visuals, restructured guidance on TL responsibilities in planting events, and six practical annexes covering tagging, event checklists, tool safety, and planting techniques.

A basic certification process was introduced, requiring candidates to study the materials, complete an online test, and join practical training sessions. The updated materials were translated into Dutch and Spanish by STICHTING and VOLTERRA.

As the focus shifted toward collaborating with NGOs and partner organizations (as mentioned in the 1st Mid Term Report (MTR)), new support materials were created:

- **Life Terra Guide for Partner Planting**, explaining how to access and use the tagging tool and events platform, to organize planting events.(Annex 13)
- **Life Terra Guide for School Planting**, offering step-by-step guidance for organizing and tagging school planting events. (Annex 14)

These materials supported more decentralized implementation while ensuring consistency with LT standards.

C.2.3 Call & Database

An engagement session with the Alliance of European Voluntary Service Organisations, originally planned under Action A2, was postponed due to COVID-19 and finally held in March 2022 in Tallinn. This interactive workshop, organised by LEGAMB, brought together participants from 13 associations and 12 nationalities to explore how LT tools and tree planting actions can support citizen participation in climate action.

Also in March 2022, LEGAMB facilitated an online meeting with partners to share experience on volunteer mobilisation and the organisation of planting events. The session also served to collect feedback to update the TL training materials.

To attract and activate new TLs and volunteers, several calls were launched yearly and disseminated across demo countries. While initially envisioned as a launch ahead of the planting season in September, in practice the calls were strategically timed around key citizen engagement moments, when volunteer participation was most needed.

A dedicated email account was created by STICHTING to communicate with volunteers and TLs ([redacted]), and over 100 applications for volunteering in LT planting events in Europe were received via this email + contact form + other ways. Additionally, a TL database was created by STICHTING to organise and manage volunteers trained.

C.2.4 Train & Engage Leaders

At the start of the project, the engagement strategy focused on identifying, training, and supporting individual volunteers in demo countries, coordinated by the implementation ABs. Each country responded differently to outreach efforts, and each AB applied slightly different engagement approaches. The training process to become a TL typically included online sessions, followed by an online survey, and concluded with an in-person, hands-on planting session with project staff to ensure participants could confidently support and organise tree-planting events. However, it soon became clear that while many individuals were eager to contribute, few had the time or capacity to independently organise full-scale events.

At the same time, already in Y1, outreach efforts began to attract interest from local organisations and, as reported in the 1st and 2nd MTRs, it became clear that partnering with local entities such as environmental NGOs, associations, schools, or volunteer groups was the most effective and scalable way to build capacity for organising planting events. While continuing to engage individuals, LT began supporting these organisations as TLs as well. This approach was first implemented in Spain in Y2 by VOLTERRA and STICHTING, and gradually adopted in other countries from Y3 onwards, mainly led by STICHTING. Depending on the context, collaborations included providing training materials, technical assistance, access to the LT platform, and, in some cases, logistical support, subcontracting for event organisation, communication visibility, or help with EU-level reporting (e.g., Map My Tree).

By the end of the project, LT had trained 384 individuals, and engaged with 1,194 school classes, resulting in a total of 1,528 TLs. Moreover, 84 NGOs/organisations supported LT in organising tree planting events across Europe. Annex 15 outlines the refined TLs strategy introduced in Year 2, along with a complete breakdown of the final numbers of individuals, school classes, and organisations involved.

Beyond implementation support, this strategy also helped to build a network of European planting organisations (LT's network of partner organisations), encouraging replication and knowledge exchange across countries. All partner organisations were integrated into the LT platform, reinforcing the project's long-term impact and visibility.

C.2.5 Nominate Top Leaders

LT recognised the importance of celebrating outstanding contributions from its network of volunteers and partners. To do so, the LT Climate Action Awards (see Action E.3) were created as a way to acknowledge and thank the most committed individuals and organisations supporting the project. The first two editions included the "Most Involved TL" award category, highlighting the dedication of individual volunteers. In later editions, this category evolved into "Most Involved Organisation" to reflect the project's focus on collaborating with partner organisations and NGOs.

Action C.3 - Initiate citizen planting

Foreseen start date:	*01/10/2020*	*Actual start date:*	*01/10/2020*
Foreseen end date:	*31/12/2022*	*Actual (or anticipated) end date:*	*30/06/2024*

C.3 and C.5 actions represent the demonstration phase of the LT project, having a strong reliance on LIFE funding. This implementation action was dedicated to organising **citizens** planting events, and allowed the consortium to test the barriers in the execution of plantings. While originally intended to focus on six countries, the consortium strategically included Belgium, Ireland, France, and the Czech Republic within the core group as well, given the favourable conditions to initiate demonstration work very early in the project. Additionally, This demonstration action was supposed to last only the first 2 seasons (2020-2021 and 2021-2022) but given unexpected challenges (COVID, not spending all the foreseen budget, STICHTING taking over The Netherlands), all informed and approved by CINEA through mid project reports and Amendment, this action was kept active until season 4 (01/07/2020 to 30/06/2024).

C.3.1 Small Event Logistics & Human Capital

Implementation partners (STICHTING, VOLTERRA, ANYH, LEGAMB, CERTH) aimed to organize 10 citizen events in each of the 6 demo countries in Y1, and 50 in each country in Y2, totaling 360 events. The final numbers for citizen events achieved by each implementation AB during the demonstration phase over the course of the project were:

STICHTING

Year	Trees Planted	Events Organized	People Participated
Y1	13,012	45	1,207
Y2	52,509	89	2,924
Y3	83,529	232	10,576
Y4	79,639	192	7,682

VOLTERRA

Year	Trees Planted	Events Organized	People Participated
Y1	4,933 + (4,860 Co-Organised)	17 + (5 Co-Organised)	331 + (151 Co-Organised)
Y2	15,188 + (10,123 Co-Organised)	59 + (25 Co-Organised)	6,170 + (1,154 Co-Organised)
Y3	3,610 + (27,382 Co-Organised)	5 + (76 Co-Organised)	165 + (7,233 Co-Organised)
Y4	10,454 + (13,557 Co-Organised)	7 + (135 Co-Organised)	181 + (5,106 Co-Organised)

CERTH

Year	Trees Planted	Events Organized	People Participated
Y1	1,287	10	183
Y2	1,813	36	1,839
Y3	1,822	8	605
Y4	2,372	12	789

LEGAMB

Year	Trees Planted	Events Organized	People Participated
Y1	739	2	50
Y2	6,388	298	15,932
Y3	7,780	215	19,591
Y4	3,645	121	8,877

ANYH

Year	Trees Planted	Events Organized	People Participated
Y1	0	0	0
Y2	1,172	5	262
Y3	2,541	12	641
Y4	201	4	133

VOLTERRA and STICHTING co-organised many events together in Spain and Portugal given the shared personnel and logistics between both (These events/trees/participants are only counted once under STICHTING totals). More info about all the events can be found in Annex 16. Check the consolidated numbers of the demonstration phase (C.3 and C.5 in action C.5).

C.3.2 Land

LT's planting events were strategically organized across diverse land types, guided by a categorization system and a set of prioritized selection principles. We categorized land use based on UN/FAO definitions, simplifying the 22 classes from the C3S Land Cover Service into user-friendly labels such as Forest Land, Cropland, Grassland, Wetland, Mixed Vegetation, Settlements, and Other. This process was automated by CYBELE and STICHTING ensuring consistency and accuracy in defining land types for our projects.

When selecting land, the consortium prioritized sites based on several key criteria, acknowledging that finding suitable land is the second biggest bottleneck for planting activities (only behind funding). These priorities, though not exclusive, guide our efforts:

- **Accessibility:** Prioritizing easily accessible land in urban and peri-urban areas to facilitate citizen engagement events.
- **Abandoned Land:** Focusing on abandoned land to bring ecological value back to neglected areas.
- **Agricultural Transition:** Engaging with farmers interested in transitioning to agroforestry or food forest systems, or integrating trees into their existing agricultural landscapes.
- **Financial Contribution:** Prioritizing landowners who can contribute financially to the planting, ensuring land preparation and long-term tree maintenance.
- **Cost-Efficiency & Engagement:** Organizing at least 2-3 planting events per plot to maximize cost-efficiency, and always striving to include at least one citizen event in accessible areas of professional projects, with a strong focus on local stakeholders like schools.

COAs

The consortium also utilized COAs to formalize partnerships with landowners and planting organizations, clearly outlining the duties of each party for every planting project. These COAs were adapted to specific country requirements and translated into multiple languages (Spanish, Portuguese, Dutch, German, Italian, Greek). Records of these signed agreements are available in Deliverables "Signed COAs for Y2 plantings," "Signed COAs for Y3 plantings," "Signed COAs for Y4 plantings," "Signed COAs for Y5 plantings," and "Signed COAs for Y6 plantings + additional commitments of landowners for the after life." Additionally, other agreements, such as Declarations of Honor (DoH) and Letters of Intent, were signed to authorize planting partners to report

their trees on the LT platform and, in some cases, on the 3 Billion Trees Pledge (Map My Tree) platform, aligning with DG Environment's reporting requirements.

C.3.3 Trees & Tools
Saplings

STICHTING directly sourced trees from 47 different nurseries across 9 countries, while other ABs like LEGAMB, CERTH, and ANYH collaborated with additional local nurseries for a total of 62 nurseries between all implementation ABs. Furthermore, our extensive network of local partners, operating in over 30 countries, procured seedlings from their own trusted local suppliers. VIVEROS played a significant and explicitly foreseen role in seedling supply, as outlined in the GA and further expanded during the amendment phase, reflecting its central contribution. This diverse sourcing resulted that nursery supply was not a challenge for species selection or planting, and any necessary substitutions due to availability constraints were managed without compromising quality or project objectives. (List of nurseries in Annex 17).

Species selection was a critical task, guided by the "right tree in the right place for the right purpose" principle, though with necessary nuances. This process was typically performed by expert project partners in collaboration with landowners, sometimes seeking external support. To aid this, a series of species selection tools were developed for both internal and external stakeholders (more details in Action A.1.4). For large plantings, the consortium also maintained a dedicated species selection document detailing the planned species and the considerations behind their choice; in some cases, this information was directly integrated into the COA.

Regarding the use of non-native species, LT acknowledges the need for careful consideration. However, in a small number of projects their inclusion was consistently guided by specific planting objectives and expert consultation. The non-native species were planted in highly controlled environments for specific functional objectives, such as productive food forests, agroforestry systems (for benefits like food production, nitrogen fixation or windbreaks), and urban/community gardens (for aesthetic or cultural value). In these contexts, the controlled environment and clear functional goals differentiate them from traditional ecological restoration. A limited number of non-native species were also introduced in forested areas as carefully justified experimental plantings, like the "Klimawald" site in Germany, which was undertaken with direct approval from local authorities and informed by specialists.

Life Terra has always strictly adhered to European regulations, and we strongly emphasize that we did not plant any invasive or alien species, in full compliance with the EU's Invasive Alien Species Regulation (Regulation (EU) 1143/2014).

Quality Control on Species Selection

Since September 2022, UB has conducted multiple rounds of randomized quality control, evaluating species selection from planting seasons 22-23, 23-24, and 24-25. This involved assessing a representative sample of events across project countries and decision-makers, scrutinizing the application of criteria related to environmental suitability, biodiversity, and ecosystem functionality. The species selection was assessed using a rubric that defines score ranges with specific requirements and assigns weights to each criterion. Higher scores require species to be well-matched to site ecology and future climate projections, predominantly native and properly justified non-natives, resulting in assemblies that functionally resemble natural communities and

provide benefits to biodiversity or enhance resilience. This approach aligns with LT principles by valuing not only viability for effective long-term carbon capture but also meaningful contributions to ecological restoration. For detailed information on the methodology and results of this assessment, please refer to **Annex 18 C.3 "Quality Control of Species Selection" and Annex 19 C.3 "Scores Rationale".** An analysis and discussion of the results can be found in Deliverable D.2, "Conclusions and Recommendations." During this evaluation process, UB developed several tools to support the species selection process, which were mentioned earlier in Section A.1.4.

Tools

Tools are managed by each Implementation AB. They are neither sent to nurseries nor to volunteers. Organisations and individuals who act as TLs already have access to necessary tools. In some cases, landowners provided the needed tools for the planting. Cocoons were tested by VOLTERRA in a few difficult sites, based on the previous experience of LIFE The Green Link (examples: Las Rozas - Alcornoques & Cocoons and Les Garberes keeps planting with Cocoons) but all ABs considered the high cost of implementation a burden and it was decided to put more emphasis on motivating landowners to arrange drip or emergency irrigation in case of need. Also, more efforts were dedicated to promote better soil preparation and application of biochar and mulching to enhance survival rates.

Assistance for Citizen Planting

Initially, LT's "Volunteer Pack" for TLs included a branded vest and brochures, with some also receiving a project flag and a tote bag. To maintain a lightweight and low-cost approach, TLs were asked to utilize their own smartphones for project activities, rather than being provided with LT tablets. However, STICHTING strategically shifted the budget allocated for these volunteer packs, as approved in a project Amendment. These reallocated funds were instead used to hire additional support for citizen events, particularly for tasks like hole digging and, in many cases, planting any remaining trees after an event. This ensured that no trees were lost due to incomplete planting by non-professional volunteers, optimizing resource use and maximizing planting success.

Action C.4 - Roll out Education Pack

Foreseen start date:	*01/01/2021*	*Actual start date:*	*01/03/2021*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

C.4.1 Testing

To test pilot materials in NL, GYNZY conducted focus group sessions in the Netherlands involving 8 teachers from primary, secondary and special education schools. In parallel, EUN organised a broader pilot with 65 teachers to test the EN version. See Action C.4.3.

C.4.2 Translation & Local Content

Following the pilot, the final version of TM was finalised and translated into all project languages (GE, GR, IT, PT, SP), with lesson contents carried out by EUN and interface elements by GYNZY. To facilitate this task, GYNZY delivered a training session for translators (Annex 20). Each language version has a dedicated landing page, offering access to the full set of materials. Most videos remained in English for technical reasons. Although the proposal foresaw a crowdsourced translation tool this was not implemented due to the technical complexity of TM's interactive contents. These translations would have required extra resources to ensure the quality and scientific base

of lessons were not compromised. Still, the current setup allows for self-translations and customisations.

Considering the amount of high-quality materials to be created, teacher's feedback, the extra support needed from UB, and the customisable nature of lessons, it was decided to only develop two learning levels (ages 8-10 & 11-14), instead of three (ages 8-9, 10-12 &13-14), as originally foresaw. This solution proved to be effective in the testing phase as teachers could adapt materials to their specific learning context and students' needs.

The full Life Terra's Educational Pack Terra Mission was launched in January 2022 in 7 languages - Dutch, English, German, Greek, Italian, Portuguese, and Spanish - and two learning levels (age groups 8-10 & 11-14). It includes eight sustainability-related themes - CC, Energy, Waste, Circular economy, Water, Agriculture, Air, and Trees - accompanied by an Introduction and a Closure lesson with a printable class certificate. Each theme offers an IWL with a problem-solving approach that includes content, videos, games, and exercises, a teacher manual and a printable student worksheet (see image below). More information on TM contents and structure in Annex 21 and Deliverable C.4 "Updated & tested version of course materials digital version". TM remains available and is being actively used in schools across Europe and beyond.

C.4.3. Trial Lesson Plans

As mentioned in C.4.1, a total of 73 teachers from 27 countries tested the pilot version of TM in English and Dutch (8-10 & 11-14 age groups) in Y1, reaching over 800 students. These schools served as "demonstration sites" and their feedback helped ensure that the education materials are usable in different EU school contexts and teaching realities. The testing confirmed the importance of pairing digital materials with hands-on activities and outdoor experiences, aligning with the project's educational strategy (see C.4.4).

C.4.4 Evaluation, Feedback & Improvement

During the testing period, extensive feedback was gathered from both "demo" teachers and students who tested TM pilot themes in English and Dutch. GYNZY and EUN compiled, processed and evaluated all the feedback provided which was then used to make adjustments and upgrade the project's educational materials.

Due to COVID-related visit restrictions, in-person class observations were replaced with online one-on-one interviews with focus groups of teachers. See Deliverable C.4

"Report on focus group sessions" for more information on GYNZY's teachers feedback. EUN's "demo" teachers shared their impressions and students' reactions by completing pre- and post-implementation surveys (Annex 22). The student questionnaires developed by GYNZY remain available on all landing pages for continuous feedback gathering (see first results in Annex 23). Overall, the materials were well received and the evaluation showed strong potential for pan-European use, especially when complemented by training opportunities for teachers unfamiliar with sustainability education. See results and a comprehensive evaluation of teachers feedback on TM pilot materials in Annex 24.

To further engage teachers and accompany them in their educational journey with TM, EUN developed and coordinated the TM MOOC: Teaching Sustainability for Action, hosted on the European Schoolnet Academy platform (Annex 25). The course included four modules, two webinars on tree planting and outdoor learning, and a live TeachMeet for teacher interaction and knowledge exchange. The MOOC was designed to help educators integrate TM contents into their classes and encourage students to take climate action. Participants explored the materials, designed Learning Scenarios (template) which were then evaluated by other participants through a peer-review system (rubrics), and shared experiences with peers through discussion spaces. The MOOC was run twice (2022 and 2023), engaging 3,872 educators from 68 countries (970 of which completed the course), and remains open for self-paced learning. Pre- and post-evaluation surveys confirmed the usefulness of the MOOC and the demand for professional development opportunities related to sustainability and CC education. The full MOOC's evaluation report is available in Annex 26.

Extra materials were developed to further support and engage teachers. GYNZY created an interactive activity called Gameshow: TM to offer additional content in Dutch and a class quiz in English to activate pupils' interest on TM themes. In line with Action C.2 and the project's strategy to empower citizens to organise planting activities autonomously, STICHTING created the Life Terra Guide for School Planting (Annex 14) in English and Spanish (see Action C.2), including key information on how to find suitable land, select species, plant correctly, tag trees using the LTplatform, etc.

As an ongoing process, TM was maintained by GYNZY during the project's implementation. Following users' feedback, relevant scientific findings, and availability of new features on GYNZY's platform, educational contents and technical functionalities were upgraded on a rolling basis when deemed necessary. TM usage was monitored, analysed, and reported regularly. From its release in January 2022, TM engaged **35,115 classrooms** worldwide, reaching an estimate of 421,380 primary and secondary school students, and significantly surpassing the original target of 14,000 classrooms by 2025.

C.4.5 Class Project & Jury

To promote teacher engagement and action-based learning, EUN in collaboration with Scientix and with STICHTING's support, launched TM Challenge, a friendly competition for schools organised annually within the SDC, a popular initiative among teachers in Europe and beyond. These competitions offered different participation options: sharing experiences after implementing TM at school, developing new ideas to tackle sustainability issues as a class or sharing real-life activities -including tree planting- carried out with pupils after being inspired by TM. These competitions refer to the "Class Project Contest" and were hosted on Scientix' platform, offering a more accessible, inclusive, and scalable format. As such, the digital hosting tool was not necessary, and resources were redirected towards higher-impact dissemination and

participation. EUN created landing pages, instructions, Terms and Conditions (example) on how to participate, submission forms, news items, and a promo pack for partners to disseminate. The number of SDC participants increased significantly over time: from 62 entries in 2022 to 167 and 246 submissions in 2024 and 2025, respectively. LT co-organised the 2024 SDC, reaching over 700,000 participants in 50+ countries. A jury formed by EUN, STICHTING, and UB revised the entries to evaluate their quality and select the winners. All participants received a diploma.

C.4.6 Exchange
Winners of the TM Challenge were yearly invited to participate in workshops and training opportunities at EUN's Future Classroom Lab in Brussels, allowing for knowledge and experience exchange with peers. In Y5, the two winners of the 2024 SDC were invited to join a planting event in Las Rozas, Spain. In parallel, since the 1st edition in 2022, the LT Climate Action Awards included one education-related category every year (e.g., Most Active School Planting Action) to recognise and celebrate outstanding contributions by educators and schools to sustainability education and tree planting.

C.4.7 International roll-out
To further increase the wider reach of TM, EUN, GYNZY, STICHTING, and UB, and actively promoted the programme through educational events and dissemination initiatives targeting teachers, education professionals, and institutions in Europe.

GYNZY participated in the School Education Transformation Technology (SETT) Fair in Belgium (Feb 2025) with a dedicated stand to present TM and LT. This fair, which welcomed over 3,200 participants, provided access to a broad audience including school leaders, teachers, educational consultants, and government officials.

In parallel, EUN organised six in-person workshops (3 Future Classroom Lab workshops and 3 Science Project workshops), where international groups of teachers explored how to adapt and integrate TM in their schools. These sessions facilitated peer learning and creative adaptation of the materials (MOOC, planting guide, etc.) across contexts and countries, contributing to TM's broader international visibility and usability. This approach allowed LT to meet the exchange spirit while ensuring cost-effectiveness and inclusion.

Action C.5 - Initiate professional planting

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2024*

Together with C.3, C.5 was a demonstration action for **professional plantings**, in complement to citizen plantings. Action C.5 represents large-scale projects and was key to reaching larger numbers. The immense variety of LT's projects showed that it is key to be able to tackle reforestation, ecological restoration, green fencing, agroforestry and other planting objectives.

As explained in Action C.3, while originally intended to focus on 6 countries, the consortium strategically included Belgium, Ireland, France, and the Czech Republic within the core group as well, given the favourable conditions to initiate demonstration work very early in the project.

C.5.1 Professional Plantings

STICHTING

Year	Trees Planted	Events Organized
Y1	45,088	6
Y2	262,543	38
Y3	432,316	74
Y4	270,600	48

VOLTERRA

Year	Trees Planted	Events Organized
Y1	25,855 + (3,412 Co-Organised)	7 + (2 Co-Organised)
Y2	9,437 + (90,281 Co-Organised)	3 + (14 Co-Organised)
Y3	0 + (3,155 Co-Organised)	0 + (2 Co-Organised)
Y4	0	0

CERTH

Year	Trees Planted	Projects Organized
Y1	0	0
Y2	0	0
Y3	5,500	3
Y4	15,000	1

In total, the final number of trees planted by the whole consortium under C.5. Action was of 1,066,549 trees. Given the challenges with the [redacted] (see section C.5.2. below) STICHTING had to increase its efforts to scale up tree plantings in order to meet the GA targets, particularly in Y2, 3 and 4, having to subcontract many more planting services as originally foreseen (More info in section 8.5).

As explained in Action C.3, here we show achieved results vs expected results for both demonstration actions (C.3 and C.5).

Year	Expected	Achieved	
	(C3&C5)	C3	C5
1	90,056	19,971	70,943
2	457,553	77,070	272,190
3	450,000	98,282	437,816
4	175,000	96,311	285,600
5	150,000		
TOTAL	**1,322,609**	**291,634**	**1,066,549**
		1,358,183	

Looking at the overall figures, we reconfirm that the Demonstration Phase (Actions C.3 and C.5) was successfully completed by the end of Y4. These results were not altered in the Amendment, apart from an extension of the implementation period, and we fully met the original planting targets. The total number of LT Trees planted under the demonstration phase amounted to 1,358,183, slightly exceeding the expected 1,322,609. This confirms the solid execution of the demonstration component of the project, as originally envisioned. As such, after the completion in Y4, both these actions were closed and no further costs were inputted. This was also communicated in the June ‘24 Monitor meeting in the Netherlands.

Regarding CO2 sequestration, according to the developed methodology detailed in action D.1, the trees planted in the demonstration phase are estimated to have captured by the end of the project 17,223 tons of CO2eq and are estimated to capture 221,531 tons of CO2eq 40 years after their planting.

For comprehensive information regarding LT's professional planting projects, please refer to Annex 27. The selection of land for these projects, the underlying agreements with landowners and partners, the supply and selection of tree species, and the specific tools utilized all followed the detailed methodologies and principles described in Action C.3. This ensures consistency and adherence to LT's high standards for all large-scale reforestation efforts.

C.5.2. Novel planting and tagging technology

Initially, the project foresaw the potential of an adapted planting head, specifically the RISUTEC, which LLC had acquired and trialed in Northern Spain. However, trials, between proposal submission and GA signing, revealed that this planting head lacked the innovation and sophistication required to effectively address the complex operational challenges encountered on degraded lands. Consequently, the decision was made not to acquire two prototype planting heads for the LT project. Instead, LLC pivoted to introduce a different innovation aimed at accelerating global reforestation. This strategic shift, including the associated budget reallocations, was formally approved by CINEA through an Amendment to the GA.

In parallel, LLC explored unmanned aerial vehicles (UAV) and automated tree recognition using drone imagery to identify tree locations in large plantings without manual tagging. However, practical application revealed limitations, and CINEA's concerns regarding its implementation feasibility within the project led to its removal from the scope. Resources were subsequently redirected towards more immediately actionable planting solutions, including subcontracting planting services, which also helped mitigate delays in [redacted] development.

Development and Trials of the [redacted]

[redacted]

[redacted]

[redacted]

C.5.3 Peat Substitutes

LT aimed at experimenting with the introduction of biochar in plant production at VIVEROS. The primary objective of these trials was twofold: to contribute to operational carbon sequestration directly in the plant containers and to leverage biochar's properties for more efficient plant production, ultimately enhancing the quality of the produced plants.

The trials were designed to analyze various variables impacting plant production, aiming to identify optimal scenarios for biochar incorporation. These variables included:

- **Different packaging**: Testing various forest alveolus containers (300cc, 225cc, 200cc), a 1200cc container, and individual pots (1000cc, 2000cc, 3500cc).
- **Biochar particle size**: Experimenting with 5-10mm and 10-15mm gauges.
- **Different mixing percentages**: Including 15%, 25%, and a 2mm superficial application.
- **Different Species**: Castanea sativa, Cytisus scoparius, Lavandula officinalis, Pinus pinaster, Quercus pyrenaica, and Viburnum tinus.

Trial Results and Challenges

Results were promising regarding seed germination, which was found to be similar to sowing with conventional peat in both forest alveolus and larger caliber containers. The use of 5-10mm particle size was preferred due to a more homogeneous mixture and better machinery operation, as larger sizes caused jamming. However, the use of biochar solely as a 3mm surface cover proved unfeasible due to excessive water evaporation and reduced plant humidity.

Despite the promising germination results, the trials identified several significant logistical and economic challenges that ultimately prevented the scaling up of biochar use. The primary hurdle for scaling was the logistical complexity of pre-mixing biochar with other substrate ingredients. Additionally, while biochar's high water absorption capacity is advantageous for the plant, it led to a heavier product, making manipulation by operators more difficult, increasing transportation costs, and causing fragility and breakage in containers.

VIVEROS concluded the trials and decided not to proceed with scaling up due to these unresolved issues. Subsequently, STICHTING explored continuing the testing with

other European nurseries in Romania and Finland, but both showed significant reluctance to adopt biochar, citing similar concerns encountered in our trials.

A key suggestion arising from these trials is that **peat providers could pre-mix biochar with peat directly**, which would significantly facilitate logistics and operations for nurseries. The project's experience highlights that while biochar offers clear benefits for plant quality and germination, its widespread adoption in nurseries requires integrated solutions within the supply chain to overcome current logistical and economic barriers. Further details on the protocol used in the trials and their results are included in the updated version of the Annex 29 C.5 Deliverable Plant production protocol v2.

C.5.4 Life Cycle Assessments

Within the LT project, two comprehensive Life Cycle Assessment (LCA) studies were conducted to evaluate the environmental and economic impacts of our innovative approaches compared to conventional methods. These studies focused on two critical areas: tree planting procedures and seedling production at nurseries.

Initially, CERTH established the system boundaries for both the baseline (conventional) and LT (retrofit) scenarios for planting procedures, encompassing processes from land preparation to transportation. Data collection involved collaboration between CERTH, VOLTERRA for conventional planting, and LLC for the new automatic planting machine. Similarly, for seedling production, system boundaries were defined for both traditional peat-based substrates and the LT scenario, which incorporated biochar, mycorrhiza, and peat. Data collection for this LCA involved VIVEROS providing consumption of raw materials, fuels, energy flows, and environmental releases. The subsequent life cycle impact assessment utilized standardized methodologies like IMPACT 2002, employing a combined mid-point and damage-oriented approach.

The final LCA results demonstrate significant sustainability benefits. For **tree planting**, the traditional method (auger for pits) showed an environmental impact of 0.029 $kgCO_2eq$/tree, whereas the LT method (using the [redacted]) achieved a notable **27% reduction in GHG emissions** at 0.021 $kgCO_2eq$/tree. Economically, traditional planting costs ranged from 2.5 – 3.5 €/tree, while the LT method with [redacted] achieved a cost of 1.68 €/tree, with a potential further drop to 0.90 €/tree at 400 pits/day, highlighting substantial cost efficiencies.

For **seedling production**, the traditional peat-based substrate resulted in 0.0616 $kgCO_2eq$/tree. In contrast, the LT substrate, incorporating biochar and peat, demonstrated a **more than 16% GHG reduction** at 0.0529 $kgCO_2eq$/tree. Economically, seedling production with the LT substrate saw a slight increase to 0.294 €/seedling compared to the traditional 0.276 €/seedling, a modest rise justified by the clear climate benefits achieved.

These findings underscore the significant environmental and cost benefits derived from our advancements in automation and the integration of sustainable substrates. More information of both studies can be seen in the Deliverable submitted to CINEA.

Action C.6 - Secure Financing

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

This action focused on securing diverse funding streams to support LT's ambitious reforestation and climate action goals.

C.6.1 Attract Large Donors through Targeted Fundraising

LT pursued various strategies to engage large donors, including organizing dedicated dinners, directly engaging philanthropic families to fund specific projects in their name, the so-called “Legacy Forests”. Nevertheless, despite concerted efforts and some initial advancements, these strategies proved to be significantly more challenging than anticipated. In order to boost our efforts, STICHTING seeked assistance from consultancies to access wealthy family offices and related grants, but this still did not convert in significant funds as the cycles to close such substantial deals are much longer than initially projected, nevertheless we are very positive that this will pay off and we will continue pursuing this strategy in the After LIFE period.

In the events industry, we successfully forged key partnerships with conference and festival organisers. Thanks to our participation in the London Sustainability Live fair in November 2024, we engaged with the [redacted]. to now become their new partner for the next 3 years for the value of €[redacted]/year, where we will combine tree vouchers for participants, carbon credits to offset the event’s impact and tree planting events with their most active members. Also notably, our collaboration with [redacted] in the Netherlands has been a significant success, promoting sustainability within the [redacted] sector. Since 2024, this partnership has enabled [redacted] to offset their CO_2 emissions by planting trees, directly contributing to reforestation efforts and biodiversity enhancement. On their online platform, [redacted] and [redacted] commit to allocating at least [redacted]% of each [redacted] towards tree planting initiatives. This amount is then invested in sustainable reforestation projects managed by LT. See more details about our efforts to engage large donors in Deliverable C.6 Proceedings Fundraising Events.

C.6.2 Crowd Funding

LT explored various crowdfunding avenues, both through external platforms and internal tools. Initially, we tried external platforms like Verkami. A notable partnership was with [redacted] for the "10k Challenge," which successfully engaged Dutch citizens and SMEs to sponsor tree packs. Following this success, [redacted] collaborated with STICHTING on "Plant it Forward", a crowdfunding campaign focused on school activities. Despite initial traction, these external initiatives proved more challenging than expected.

STICHTING also pursued internal crowdfunding tools, with the "Adopt a Tree" page on our website being the most successful. Through this platform, anyone can adopt or gift trees, with over [redacted] trees adopted/gifted throughout the project. We also had more than [redacted] subscribers, [redacted] of whom are currently active, regularly adopting trees. This channel shows significant seasonal peaks, particularly around periods like Christmas. We also attempted SM campaigns and dedicated website pages to raise funds for specific projects, but these required substantial marketing budgets to yield significant returns. BRIGHT also conducted successful, albeit smaller-scale, fundraising campaigns on Facebook and Instagram for specific events, demonstrating potential with broader individual engagement.

In 2024, we launched Green Friday, a Business-to-Consumer(B2C) campaign around Black Friday encouraging Dutch primary schools to host sustainable activities paired with our TM educational package. Pupils raised tree donations via LT’s scan code

payment system. Funded by [redacted] and supported by agency [redacted], the campaign targeted over 4,000 schools but fell short of expectations due to busy school schedules.

While some B2C initiatives proved successful, STICHTING recognized that a broad B2C strategy is very challenging and requires more time and market recognition to become consistently profitable. In parallel, we intensified our focus on B2B crowdfunding through "Company Pledges", which allow participants to make a "pledge" with results directly visible in an integrated dashboard. Following our successful [redacted] pilot, we launched more pledge campaigns, some with good results (e.g., [redacted] forest in the Netherlands, [redacted] forest in Germany, [redacted] in Belgium), and others with less success (e.g., the second [redacted] pledge). The active promotion of the tool by the collaborating counterpart is vital for its success. This strategy proved much more effective, enabling us to organize [redacted] pledges and raise more than [redacted] euros during the project. For more details on all our crowdfunding efforts, please check our Deliverable C.6 Crowdfunding.

C.6.3 Individual donor programs and collaborations with small and medium-sized businesses

Our most effective fundraising strategy has been through **sustainable team-building events**, where companies bring their employees, partners, or even clients to spend time in the field and plant trees. In total, we have organized more than [redacted] such corporate events, raising around [redacted] (event fee + trees) through this highly engaging strategy. This approach not only generates significant funds but also fosters a deeper connection between participants and our reforestation efforts. We have also successfully signed multi-year contracts with major companies like [redacted], [redacted], and [redacted], which provides highly appreciated predictability for future seasons and significantly streamlines our organizational planning.

In parallel with these direct engagements, we have actively pursued the development and commercialization of carbon credits. We currently have 26,154 credits certified or in the process of certification, and we have already sold close to [redacted] in credits to various players in the market. We collaborate with [redacted] and [redacted] as our credit brokers to facilitate the intermediation of the remaining credits. We firmly believe that the combination of these verified carbon credits with our local sustainable events represents our most effective funding strategy moving forward into the After Life period. This dual approach allows us to achieve the scale of funds needed for growth while preserving the social and personal touch that characterizes LT.

During the course of the LIFE project, and starting from zero, STICHTING has successfully raised [redacted] in external, private sector donations. The bar chart on the left illustrates this steady growth in fundraising over time, from almost no external funding in 2020 to nearly [redacted] projected by 2024-2025.

The line chart on the right shows how this external fundraising has gradually replaced reliance on the EU subsidy. In 2020, nearly all project funding came from the EU subsidy, but by 2023-2024, more than 90% of spending is covered by STICHTING's own fundraising efforts. Given this trend, and as planned in the GA, STICHTING is on track to continue its operations relying 100% on external fundraising. This is a clear demonstration of how LIFE funding can be successfully leveraged to build long-standing initiatives that remain sustainable in the after-LIFE period by its own means.

Action C.7 - Scale through replication

Foreseen start date:	*01/07/2022*	*Actual start date:*	*01/03/2022*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

Action C.7 was dedicated to the replication phase of the project, focussed on progressive scale-up beyond the scope of LIFE co-financing. In September 2022 the replication plan was created to provide a direction on how to reach other countries.

C.7.1 Translation of Materials (STICHTING):
Project materials were generally not translated into each new replication country's language but instead we worked with our existing materials, mostly in English. The basis for this decision were resource constraints, both financially and timewise, and the consideration that there would not be a sufficient enough ROI from translations by professional companies, given that within the timespan of Action C.7 each replication country would likely have just one or a few events but not yet events at an economy of scale. Nevertheless, specific materials for the events organised in the replication countries (i.e. Info boards, Posts, local leaflets) were produced in the local language.

C.7.2 Make European contacts (ALL PARTNERS)
We engaged a wide range of stakeholders in the replication countries to strengthen and diversify our planting efforts. These included numerous planting NGOs organising local tree planting events, public institutions facilitating activities by offering land and logistical support, and private companies interested in both funding and participating in local plantings. We also built relationships with media outlets eager to promote and disseminate information about these initiatives, further expanding visibility and impact. The outcomes of these collaborations are detailed in sections C.7.6, C.7.8, and C.7.9.

C.7.3 Country Breakout event (STICHTING)
First events outside our core countries date back to as early as Y2. All these opportunities happened organically as landowners and local authorities showed interest in having a LT event. Since then, LT has continued to receive spontaneous interest from other countries and also STICHTING has been actively looking for planting partners to kick off activities in other countries with the objective of achieving our aspiration of building a European movement by expanding activities to at least one breakout event per country across 39 countries (21 EU member states, 6 European non-EU, 12 Worldwide)

C.7.4. Platform & Other Expansion (STICHTING)
As further detailed in Action C.1, the platform was heavily improved throughout the project and became a key tool for enabling our network of planting partners across Europe to report their planting activities and provide greater transparency

C.7.5. Engage Terra Leaders (STICHTING)
As further detailed in Action C.2, one of LT's most successful strategies was the active engagement and collaboration with 84 organizations, many of which were based outside the demonstration countries. This broad network allowed LT to introduce its concept and methodology to a wide range of partners, transforming them into TLs. Through this approach, the project expanded its outreach and presence across numerous countries in Europe, amplifying its impact and visibility.

C.7.6. Citizen planting events (ALL PARTNERS)
Citizen planting events under C.7 followed the same structure and logic as defined in action C.3, with the corresponding COAs and agreements documented in the respective

Deliverables. As foreseen, these events were organised according to available funding and demand, sometimes initiated by local stakeholders seeking to host plantings, other times driven by corporate donors wishing to support plantings in specific countries. This flexible approach allowed us to adapt activities to varying contexts and opportunities, ensuring resources were used effectively while meeting both local and donor priorities. Please see in subaction C.7.8 an overview of all planting activities in this action.

C.7.7. Education (EUN)

To promote institutional uptake of TM beyond the project, EUN engaged directly with Ministries of Education (MoEs) through online meetings (Policy Cafes) and in-person events. LT was yearly promoted at the Eminent event and the School Innovation Forum. In 2024, these events gathered 30 policy makers from MoEs, industry partners, educators, and academics for dialogue on the improvement of education in Europe. Project brochures were distributed accordingly. These efforts helped position TM within relevant policy discussions and raised awareness amongst decision-makers in education. Although no formal curricular adoption was pursued within the project's scope, this outreach was key to promoting amongst EU educational institutions the programme's relevance, quality, and alignment with EU sustainability and STEM goals.

C.7.8. Professional Planting (STICHTING)

In total, including citizen events, as part of the C.7 action the consortium was able to organise inside Europe:

EU

STICHTING

Year	Trees Planted	Events Organized	Countries
Y2	160	2	MT
Y3	326	7	BG, HU, MT, RO, SK, SE
Y4	4,847	9	HR, LT, LU, PL
Y5	110,582	114	AT, BE, FI, FR, DE, IT, NL, PL, ES, SE, DK

VOLTERRA

Year	Trees Planted	Events Organized	Countries
Y5	2,217	9	ES, PT

CERTH

Year	Trees Planted	Events Organized	Countries
Y5	9,773	9	GR

LEGAMB

Year	Trees Planted	Events Organized	Countries
Y5	1,792	66	IT

ANYH

Year	Trees Planted	Events Organized	Countries
Y5	564	9	PT

Europe (not EU)

STICHTING

Year	Trees Planted	Events Organized	Countries
Y2	14,500	1	GB
Y3	785	4	RS, GB
Y4	2,177	5	GB
Y5	4,020	9	AL, CH, UA, GB

The total number of **Life Terra European Trees** achieved under C.7 was **151,743 trees planted.** Please see more info about the projects in the Annex 30. Regarding CO2 sequestration, the LT trees planted in the replication phase are estimated to have captured by the end of the project 835.83 tons of CO2eq and it is estimated to capture 24,751 tons of CO2eq 40 years after their planting. **This means all LT planted trees (1,509,926) captured by the end of the project 17,689 tons of CO2eq and 246,288 tons of CO2eq 40 years after planting.**

C.7.9. Collaboration with other initiatives (STICHTING)

LT engaged in different forms of strategic collaborations with other planting initiatives and organisations. First and foremost, LT offered its geotagging tool free of charge to planting initiatives so that the amount and locations of millions of planted trees across Europe could be more transparent. These trees, planted independently by other entities without LIFE co-financing or any LT financing, were tagged as ”Partner trees”.

To formalize each collaboration, Declarations of Honor (DoH) were signed to commit to a shared understanding of guiding principles (as explained in action C.3). We compiled and delivered all these DoH in the Deliverable C.7 “Signed COA’s for Y5 planting”.

Beyond incorporating partner trees into the LT platform itself, 16 organisations specifically agreed to be included in MapMyTree in the same go. Hence, STICHTING, with the data that these organisations submitted, also completed their registration on MapMyTree on their behalf. By the date of this report’s submission, organisations reporting through LT and LT consortium members account for 46% of all trees recorded in the MapMyTree platform. The breakdown per beneficiary for the partner tree within Europe is:

Beneficiary responsible	Partner Trees Facilitated	Countries covered
STICHTING	28.248.812	AT, BE, HR, CY, CZ, DK, FI, FR, DE, GR, HU, IS, IE, IT,

		LV, LT, MT, NL, MK, PL, PT, RO, SI, ES, CH, TR, UA, GB
VOLTERRA	714,588	ES
LEGAMB	109,980	IT
ANYH	55,928	PT

Regarding CO2 sequestration, European partner trees are estimated to have captured by the end of the project 403,831 tons of CO2eq and it is estimated to capture 4,601,736 tons of CO2eq 40 years after their planting

Another important pillar was our widespread invitation for planting initiatives to participate in the first edition of what we called "European Tree Planting Day (EUTPD)" in the fall of 2024. It was a successful initiative that engaged 40+ partner organisations across 19 countries, with more than 400 events and 200,000+ trees planted. It contributed moreover to our goals regarding *Action D.3 - Expansion plan for global roll-out Life Terra*.

The overall effect from our European contacts (C.7.2.) and actualized collaborations with other initiatives (C.7.9.) within this Action C.7. is that LT established itself in the center of a leading European tree-planting network of over 100 partner organisations.

Added value beyond the scope of the GA

While Action C.7 primarily focused on replication and collaboration within Europe, Life Terra's activities increasingly extended beyond European borders, demonstrating the project's relevance and scalability at a global level. This expansion occurred organically through a combination of Life Terra planting events, international partnerships, and growing interest in the Life Terra digital platform and technology.

This global engagement confirms that Life Terra's methodology and digital infrastructure respond to a clear international demand for reliable tree-planting data, traceability, and impact assessment. It also represents a concrete step towards the long-term objective outlined in Action D.3 – Expansion plan for global roll-out of Life Terra, extending the project's impact well beyond its original geographic scope.

Life Terra trees outside Europe (STICHTING)

Year	Trees Planted	Events Organized	Countries
Y2	7,000	1	EG
Y3	1,141	7	CR, GH, LS, ZA
Y4	21,602	6	US, AR, AM, AU, BR, EG
Y5	45,510	4	CO, CI, UG

Partner trees outside Europe (Facilitated by STICHTING)

Partner Trees Facilitated	Countries
4,671,653	AR, AM, TH, ID, NP, UG, KE, MX, TZ

Together, these developments demonstrate that Life Terra has evolved from a European replication action into a globally relevant platform, laying the foundation for future scaling, international cooperation, and long-term sustainability beyond the LIFE project duration. Importantly, these international activities and results go beyond the scope of the Life Terra LIFE project as defined in the Grant Agreement.

All Life Terra trees and partner trees planted outside Europe, as well as the related collaborations with non-European organisations, were not included in the final results of the LIFE project. Furthermore, no LIFE project funds or co-financing were used to support these plantings, registrations, or partnerships, and no costs related to these trees were charged to the project. These outcomes represent additional impact generated independently of the LIFE funding and should therefore be considered added value beyond the scope of the Grant Agreement.

Action D.1 - Monitoring of KPI's

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2021*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

D.1.1 Developing novel monitoring technology

D.1.1.1 Collect data points

With the launch of the first version of the web app, alongside with the “tag your tree” feature, the project was able to record the geographical position of every tree tagged through the system.

D.1.1.2 Methodology to analyse data points

To ensure the long-term success and impact of our planting initiatives, we have implemented a comprehensive three-level monitoring approach. This strategy combines cutting-edge satellite technology with on-the-ground observations, providing a robust framework for assessing the health and growth of our planted areas.

Level 1:

Level 1 of our monitoring approach focuses on visual inspection, leveraging historic high-resolution satellite imagery of our planting plots. This is made possible through our valuable collaboration with the Restor platform, which provides a timeline that displays historic high-resolution images of the plot, allowing for visual assessment of changes over time. These satellite images and the associated timeline functionality are displayed in the Event Pages on the LT website, providing transparency and detailed visual context for each planting event.

For more info, users can directly access the Restor platform for more in-depth information about a specific plot. Additionally, in case the user would like to report anything it might have seen in the images, it can be done through the “i” button which will prompt the user to send an email directly to the LT team.

After each planting season, the LT team manually uploads new plot data to the Restor platform. This data is then linked to the LT database to ensure consistency and accessibility. While this process is currently manual, we are actively exploring options to integrate and automate this data flow during the project's "After life" period.

Level 2:

Level 2 provides a broader and more analytical perspective on planting health, primarily utilizing NDVI values. This level is specifically designed to offer crucial insights into vegetation recovery trends across planting sites registered within our platform.

The methodology for Level 2 leverages images from the freely available **Sentinel-2 satellite constellation**, part of the European Union's Earth observation programme Copernicus. The system calculates vegetation index (VI) values, which are averaged within each plot (1,920 Plots Monitored with a computation of over 144,000 Satellite images). These averages are computed for each month, with images affected by cloud coverage rigorously excluded to ensure the highest data quality. Additionally, a dynamic

threshold is automatically calculated as the monthly average minus two times the standard deviation derived from past years' data.

Based on these calculations, we have established a warning system. If the current average VI value falls below the defined threshold, a yellow "to be observed" warning is flagged. More critically, if the current average VI value remains below this threshold for three consecutive measurements, the plot is flagged red for "enhanced monitoring." In such cases, the LT team will proactively contact the landowner or plan a site visit to further investigate potential issues with the planting, ensuring timely intervention.

Regarding the system's evolution and reliability, it is understood that this system primarily assesses site integrity and general site health. While VIs are not definitive indicators of individual tree growth, they represent the most effective scalable indicator for monitoring all LT plots, particularly since individual trees are still quite small for direct satellite detection. We anticipate more variance in the early years of measurements. However, as more years of data accumulate and more measurements are gathered, the estimates generated by the system are expected to become increasingly stable and reliable, providing a more accurate long-term view of planting success.

Level 3:
Level 3 of our monitoring approach encompasses two complementary strategies: the development of automated very high resolution (VHR) satellite image analysis for mature tree crown identification and the implementation of a dedicated Citizen Monitoring tool for young trees.

Automated Tree Crown Identification (VHR Satellite Monitoring): The ultimate goal of this advanced activity is to automatically identify the presence of individual tree crowns using VHR satellite images, typically with a resolution of approximately 0.5 meters. To this end, a suite of machine learning models has been calibrated for the needs of the LT Project and made accessible via an API to enable the automatic detection and counting of trees from VHR imagery. The models can be used once trees achieve a certain crown diameter, generally around 2 meters, as they become discernible in such imagery. The exact age at which this becomes feasible is dependent on species and local environmental conditions. Conversely, once trees form a dense canopy where distinguishing individual crowns becomes impossible, macro-analysis techniques (like those in Level 2) become more reliable. CYBELE developed several algorithms in various regions in Europe, utilizing sites planted several years ago, outside the immediate scope of the LT project, as our own trees are currently too small to be reliably detected by VHR imagery. Tests demonstrated a very good accuracy and reliability of such systems to count and monitor plantings, however it also confirmed that LT trees did not grow sufficiently within the project's timeframe (less than 5 years) to enable full development and implementation of this VHR-based system. Therefore, the full integration of this advanced monitoring capability is planned for the project's "After life" period.

Citizen Monitoring Tool (Field-Based Monitoring for Young Trees): To effectively monitor young trees that are not yet visible through VHR satellite imagery, we have developed a dedicated Citizen Monitoring tool. This initiative stems from a good practice for field monitoring, designed to assess actual growth performance and survival rates of LT plantations. This was aided by two methodological reports prepared by IFER, namely (i) Monitoring of young trees using ground survey on LT plantations

(Albert and Blazek 2021) (See in Annex 31) and (ii) Good practice for Monitoring LT Plantations (Palmero-Barrachina et al. 2023) (See in Annex 32).

IFER, in collaboration with STICHTING, has developed the Citizen Monitoring tool, which runs on the Survey123 (ESRI) and has undergone testing at several planting sites. The monitoring uses the temporary sample plots method to estimate the survival and growth of the planting. Users should navigate to randomly generated monitoring locations within the plot. Upon reaching a location, they monitor all trees within a determined radius, ensuring an average of 3-10 trees per location. The process involves identifying tree species (or marking as broadleaf/conifer if exact species is unknown), distinguishing between LT planted trees and naturally regenerated ones, inputting the amount and average height per species, and taking pictures of the planting. This streamlined survey is significantly short and easy to perform to allow non-expert use, while keeping data integrity and reliability. The tool was trialed across Spain, The Netherlands, Germany, Greece, Italy, and Portugal, together with VOLTERRA, LEGAMB, ANYH and CERTH to further test and improve the system. Currently the tool is accessible from any event page to any website visitor in order to foster its use to anyone interested in helping this citizen science initiative.

Additionally, STICHTING, UB and IFER have done separate field visits in some plantings to complement and monitor more plantings within the project. And in addition to that STICHTING is constantly getting feedback directly from landowners to have more info about LT plantings as possible. Find below an overview of all our monitoring efforts and also see Annex 33 for more information on the site visits performed within the project.

D.1.2 Compiling KPIs and reports

Since the launch of the platform's first version, we have been committed to transparency, displaying the KPIs such as the total number of trees planted in real-time. Furthermore, all planting events, complete with their underlying detailed information, have been made publicly accessible. All KPIs evolution can be seen through the reports that have been submitted as deliverables throughout the project. The final numbers can be seen in Deliverable D.1 LIFE KPI Table and KPI Analysis Report sent in with Final Report

Nevertheless, recognizing the unique scope and scale of our project, the consortium made a strategic decision to develop a specific methodology for estimating the CO2 captured by the trees registered on the platform. This approach was chosen to provide a more transparent and precise calculation than a single average for all trees, which is a common but less granular presentation.

Carbon Sequestration Methodology:

The development of our carbon sequestration methodology has been a rigorous and scientifically supported process, led by IFER and UB experts. This comprehensive approach was first presented at the SERE Conference in Alicante in September 2022 and later on published on 30/05/2025 by the Frontiers journal, (Palmero-Barrachina et al. 2025), and can be found here. Additionally, since its first draft, LT has been publicly available on its website here since 15/11/2022.

The estimation process involves several key steps and considerations, calculated at the plot level. Initially, the relevant country or biogeographical region determines the specific biomass values to be used. The total dry weight biomass is calculated at the individual tree level, based on yield tables, National Inventories and other similar

carbon estimation methodologies. To cover all species planted, the most ecologically similar species is used for estimation, ensuring that all planted trees are accounted for. Then the last step is upscaling to the stand level assuming an average survival rate based on the objective of the plantation.

Recognizing the inherent uncertainty in projecting carbon capture over 40 years, all estimations are consistently presented in broad ranges. This approach transparently communicates the variability involved, ensuring that the reported CO2 offset figures are both scientifically grounded and realistic. The consortium also commits to regularly reviewing the association of tree species with climate regions to continuously refine the accuracy of carbon storage estimations for all trees planted by LT.

Action D.2 - Conclusions and recommendations

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*31/12/2025*	*Actual (or anticipated) end date:*	*31/12/2025*

D.2.1 Technical assessment

To evaluate the technical implementation of the project, ABs compiled quantitative and qualitative feedback from event participants and stakeholders over the course of the project. In 2022, the post-event survey developed by STICHTING helped LT to improve event organisation, tree-tagging features, and project's communication (Annex 34).

In Y5, UB created and distributed a detailed survey to all Implementation ABs: LEGAMB, VOLTERRA, CERTH, ANYH, and STICHTING (Annex 35). The goal was to collect feedback on key aspects related to the planning, execution, and monitoring of planting activities across diverse European contexts. The survey covered various topics: planting planning and techniques, citizen engagement in events, TL recruitment and training, species selection, data monitoring, land agreements and access, maintenance, seedling supply and quality, coordination with stakeholders, and the event's social impact. Surveys were also sent to Technology ABs: STICHTING, VIVEROS, CYBELE, LLC, IFER, and CERTH. Responses were analysed and summarised to extract patterns, challenges, and best practices. UB also summarised the methodology and results of CERTH's LCAs, briefly discussing them, and analysed the findings from its own Quality Control of Species Selection and the field monitoring campaigns it conducted in 2025. See Deliverable D.2 "Conclusions & Recommendations" for full analyses.

D.2.2 Social and Educational impact assessment - Social impact assessment

This action aimed to assess behavioural changes, citizen engagement, and awareness resulting from project activities. Building on the online questionnaire developed in 2021 (see Deliverable D.2 "Online questionnaire for participants & volunteers"), UB evolved this tool into a fully functional CFC integrated in the LT platform (more details on Moore et al., 2025). This tool allowed UB to collect quantitative and qualitative data related to participants' knowledge, behaviour, and self-perceived impact related to climate issues.

Using the CFC as a data collection method, participants were asked about knowledge gained, lifestyle choices, and willingness to reduce emissions. Although response rates were below initial expectations, the collected dataset provided useful insights into the project's reach and social outcomes. Additionally, anecdotal feedback observations from event participants confirmed the motivational value of community tree-planting actions.

According to the LT platform, several volunteers attended more than one planting (1.5 events/participant on average) and some returned to visit their tagged trees, showing increased emotional engagement and continuity.

- **Educational impact assessment**

The educational impact of TM was evaluated through pilot testing in 2021, follow-up questionnaires after the MOOC's runs (2022 & 2023), and teacher feedback collected during in-person workshops. Overall, teachers overwhelmingly reported increased interest and knowledge among students regarding sustainability and CC after using TM. The complexity level of the materials was deemed appropriate, and the majority of teachers confirmed their intention to continue integrating TM lessons into classroom practice in the future. Full analysis in Moore et al., (2025, under review).

In conclusion, the project's social and educational components contributed significantly to raising awareness on climate issues and the importance of planting trees, fostering environmental awareness and behaviour change towards nature-positive attitudes.

D.2.3 Recommendations to ensure future replicability and transferability

To support the long-term replicability of the LT project, UB compiled recommendations based on feedback from ABs (see Action D.2.1), field experiences, and stakeholder input. Policy recommendations developed by EUN (see Action E.2) were also considered. Read the full set of recommendations based on the implementation of the Life Terra project in Deliverable D.2 "Conclusions & Recommendations". Throughout the project, STICHTING maintained an open feedback channel via a dedicated contact form and email address on the LT website, ensuring inclusive stakeholder engagement.

Action D.3 - Expansion plan for global roll-out LIFE TERRA

Foreseen start date:	*01/07/2024*	*Actual start date:*	*01/07/2024*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

Upon successful replication in Europe, LT, led by STICHTING, plans strategic global expansion, leveraging its proven model. The European project serves as a robust proof of concept. More details on this comprehensive expansion plan can be seen in the Deliverable **C.6 Expansion plan**.

D.3.1 Expansion to New Countries & Timeline

STICHTING will prioritize small, widespread replications, fostering local initiatives to use the LT platform remotely. Corporate donors with international offices will be key to gaining attention in new regions by providing concrete financial support. STICHTING's headquarters will remain in Amsterdam.

D.3.2 Infrastructure Expansion

STICHTING will maintain and enhance the flexible, open-sourced platform and database for global expansion, analyzing increased user capacity and data points. The CTO will oversee technical implications, data management (servers in Europe), and global data protection. Satellite imagery access will also be pursued for expanded monitoring.

D.3.3 Fundraising for Global Expansion

Global expansion requires external funding beyond operational costs. STICHTING will prioritize successful strategies: carbon credit development and commercialization, combined with sustainable corporate tree planting events. Private sector engagement, especially for carbon credits, will drive resource acquisition for infrastructure, potential

new offices, and team growth. A “white´-label” version for partners to organise and promote tree tagging and specific donor tree dashboards under their brand is considered.

D.3.4 Seeking Local Partners
STICHTING will centralize core activities, maintaining consistent standards. The platform will facilitate self-registration for planting companies. Local partners, including press, NGOs, and governments, will be actively sought to engage citizens and support planting initiatives.

D.3.5 Expanding the Educational Package
STICHTING will lead the global expansion of the TM educational package. Educational materials will remain on Gynzy's platform, but STICHTING will independently lead expansion, exploring alternative formats and monetization via educational marketplaces. Future expansion will be pragmatic and demand-driven, prioritizing countries with existing projects or contacts. Education ABs will continue promoting TM, and materials will be monitored and updated, serving as a strategic asset for scaling LT's environmental impact.

Action E.1 - General Dissemination

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*End of project*

Since the start of the project, all beneficiaries have carried out dissemination activities to raise environmental awareness and encourage and provide means to take climate action. The project maintained a strong presence across multiple platforms, from SM to traditional media, to maximise engagement and reach as many people as possible.

E.1.1 Dissemination & communication pack
Website
Website visitors have increased every year, with an average monthly reach of over 17,000 visitors since January 2024. Since the beginning of the project, the website landing pages have obtained **432,950 views** from **76,002 users**. The most visited pages (excluding the Tree Dashboards, tag a tree and adopt a tree functionalities) were the ‘About the project’, ‘events’, ‘education’ and ‘partners’ pages. The website and blog have been updated daily by STICHTING. The LT website is available in English, Spanish and German. More languages were not included due to costs and lack of management resources (it takes a lot of time to update the website in 3 languages). Some specific pages were translated into other languages, such as French or Dutch, depending on the location, needs and partners involved in the project.

Beneficiaries included a link to LT's website and a description of the project on their own sites. Despite not having a website ANYH have communicated about LT through their other online communication channels. More information on LT's website can be found in Deliverable E.1. "Report on launching of project subpage".

Newsletters

By June 2025, 55 editions of the newsletter have been published in 7 languages: English, Spanish, Dutch, German, Greek, Portuguese and Italian (in total, **385 newsletters** have been sent). Since December 2020, the number of subscribers has increased every month, reaching **1,984 subscribers** in June 2025 with an average open rate of 41,76%. The newsletters contained the most recent news and activities from the project, links to the blog and SM, highlighted videos and local content. Newsletters were promoted in SM channels (both from EURACTIV and STICHTING) and can also be found on the website.

Newsletters were written by EURACTIV, with support from STICHTING to provide content, and were translated by EURIDEAS Language Experts. The tool used to send the newsletters was Mailchimp (except for a brief period of time when EURACTIV switched the provider to Piano ESP). Beneficiaries helped to improve the translations and provide local content (LEGAMB for Italian, CERTH for Greek, ANYH for Portuguese, STICHTING for Spanish, German and Dutch). As part of the After-LIFE plan, STICHTING will continue with this service on a bi-monthly basis.

Social media

LT maintained a strong presence on SM, which helped the project gain visibility, reach a wider audience and interest different stakeholders in our activities, from small individual donors to big companies. The project was present on LinkedIn (which became the strongest platform), Instagram, Facebook, X, TikTok (since May 2023 onwards) and YouTube. From the beginning of the project until June 2025, LT SM channels obtained **17,081 followers** and generated **13,651,260 impressions** in total.

Reach	January-25	February-25	March-25	April-25	May-25	June-25
LinkedIn	10,120	44,291	7,868	31,208	7,329	5,877
Instagram	9,550	19,912	19,728	22,797	12,000	9,155
Facebook	6,193	14,993	5,162	4,660	3,100	2,762
Twitter		-	-	-	-	-
Youtube	150,616	67,921	63,505	70,301	19,700	25,696
TIKTOK	3,600	1,200	5,800	2,200	4,500	669
TOTAL	**180,079**	**148,317**	**102,063**	**131,166**	**46,629**	**44,159**
ACCUMULATIVE	**13,178,926**	**13,327,243**	**13,429,306**	**13,560,472**	**13,607,101**	**13,651,260**

Reach social media in 2025. X/Twitter stopped providing data for free acounts in June 2024.

BRIGHT managed SM channels until January 2023, when STICHTING took over. Since then, STICHTING has posted daily updates about activities, our reforestation projects, planting events, participation in conferences and many campaigns to attract people to adopt trees (such as Mother's Day or Earth Day). BRIGHT continued to support SM by sharing 100+ posts with the #LifeTerra on BRIGHT Facebook (1.8M followers) and Instagram (74k followers) that generated over 23k reactions.

EURACTIV has also supported the SM strategy by promoting LT's content on their own channels, like the newsletters or publicising their policy webinars and Twitter Chats. EFE has also contributed by promoting their reports and articles about LT in their channels (more details explained in E.2 section Press and Policy Feedback).

Videos & In-depth Coverage
One of the strongest focuses has been storytelling. Through high-quality video production, we highlighted our reforestation efforts, partner collaborations, and the tangible impact of tree planting, making environmental action more relatable and engaging for our audience. In total, **164 videos** were created (105 by STICHTING and 59 by BRIGHT), reaching **2,685,149 people** on SM (LinkedIn, Instagram, Facebook and Youtube). A portfolio of all videos can be found in our Youtube channel.
STICHTING also produced 103 shorts/reels shared on Instagram and YouTube and 123 TikToks to create more dynamic content and reach a younger audience.

EURACTIV contributed by covering a planting event in Brussels in March 2022 with interviews from participants including from the EU Commission. They also produced **5 Video Explainers**, using animation and narration to describe complex situations such as CC or the 'net zero', **5 infographics**, **10 Special Reports** and **5 Twitter Chats** (the last one being on Bluesky). Links and more information can be found in Annex 36 E.1 EURACTIV's activities.

EFE has produced and published **19 multimedia stories** related to the LT project, containing text, pictures and video and distributed them to their own SM channels and website. You can find the multimedia stories on their YouTube channel list (the links to the articles can be found in the YouTube description).

Communication Strategy
A first communication strategy was developed by COM EUROPE in December 2020 (See Deliverable E.1 "Communication Strategy"). Since COM EUROPE paused its activities, STICHTING has been updating the strategy each year and ensuring it is adapted to the project's needs. The gist of the strategy is to differentiate LT from other tree-planting initiatives and enhance its uniqueness. The goal is to inform, inspire, and empower individuals and communities across Europe to take meaningful, measurable action against CC, not only by planting trees but also by providing tree-monitoring technology and educating future generations with TM. For it, LT used SM and emailing campaigns, press releases pushed through communication beneficiaries and big clients, and a series of webinars and stakeholders events that helped reach a wider audience and engage interested stakeholders.

LIFE board and LIFE notice boards
6 large LIFE field boards were produced with a description of the project and its main goals and placed in emblematic planting areas in core countries to maximise visibility. 16 LIFE notice boards were also produced and placed in each of the beneficiaries' offices, containing the same information. Boards were designed by EFE (with the support of STICHTING who provided the content), translated by EURACTIV and produced and distributed to beneficiaries by STICHTING. See Deliverable E.1. "Report on placing of LIFE info boards" for pictures and design.

Layman's report
The Layman's report is a summary of the LT project, its activities and main achievements to share with interested stakeholders, European institutions and other parties. The Layman's report was under the responsibility of EFE, but due to the complexity of the project, STICHTING, as the lead beneficiary, has undertaken this action by writing, designing and producing the report. 100 units were printed by STICHTING to distribute during the last Monitor Meeting and Final Conference. An online version is available on the website and in the drive folder. See Deliverable E.1. "Layman's Report" for more information and design.

Projects Leaflets and brochures
Brochures contain 3 pages with a summary of the project, its main objectives and goals and general information about the consortium. The brochures were distributed online to the project beneficiaries by STICHTING, accessible on the drive in the project folder. The project leaflets are an easy-to-read 1-page summary to share with interested businesses and other parties. The design was made by EFE with support from EURACTIV for the translations. See Deliverable E.1. "Leaflets" and Deliverable E.1 "Project Brochures".

Other materials
Over the course of the project, STICHTING has printed LT body warmers (534) to distribute with volunteers in tree-planting events and important stakeholders. LT flags and beach flags were also produced to signalise events. All materials contained the LT and LIFE logo.

STICHTING also designed and printed 4 roll-ups and 1,000 seed-paper flyers to disseminate the project at conferences. Merchandise to help disseminate the project amongst interested stakeholders has been designed and produced: 1,000 pens, 100 water bottles, 200 tote bags. Flags (50) and gloves (100) were also produced to disseminate the EUTPD and distributed to the organisations that took part in it. Additional field boards (i.e. Klimawald) and small boards to signalise important tree-planting events were also produced.

Action E.2 - Information and Communication

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/07/2020*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*30/06/2025*

E.2.1 Information for the general public
Press
Since July 2020, LT has been mentioned in **2,611 press articles** from both traditional and digital media. Media coverage extended across a wide range of EU member states, with content appearing in **16 different languages**.

Until September 2024, EURACTIV provided support with the reporting of mentions and readership using MELTWATER and CISION. They stopped this service due to its high costs. Since then, reporting has been done manually by STICHTING , which has proven to be challenging. Search results are personalised and influenced by factors such as location, browsing history, and algorithm changes, which often leads to important mentions being buried in the results, or not appearing at all. With access to a proper media monitoring and reporting tool, we believe we could have identified more mentions and likely reached our milestone of 3,000 press mentions. The **estimated audience reached** by press mentions was **3,335,970,354 people** (this number spans from July 2020 to September 2024, when EURACTIV ceased its services with Meltwater). See the Annex 37 E.2 - MELTWATER/CISION REPORTS which provides a breakdown of the reach of each article.

Local press have been invited to tree-planting events and press releases have been pushed to the media through local partners, resulting in some press mentions. See Deliverable E.2 "Press recognition portfolio" for the full list of press mentions.

EFE organised a Round Table event on May 27, 2022 in their EFE's TV studios about the role of the private sector and private landowners against CC and biodiversity restoration. The press were invited during the live broadcast. The video can be watched

here (it received 900 views) and an article was published. EFE also published **37 articles** (text and pictures) around reforestation topics and other activities for the LT project to support a broader impact of tree planting and climate awareness. All articles are available on their website.

Country Level Dissemination
Since the start of the project, **40 local dissemination events** have been organised by STICHTING (20), the UB (9), CERTH (6), EUN (4) and LEGAMB (1). In sum, **9,701 people** participated in the events. All details can be found on the website and also in Annex 38 E.2 Deliverable Proceedings - presentations at international conferences.

European Dissemination
In 2021, STICHTING organised 2 events on an European level: a joint planting event with several members of the CINEA, LIFE and Neemo teams to plant a tree for each finalist of the GW Awards, with 17 participants, and the first EU GW Partner Event about travel and tourism in collaboration with Pestana Hotel Group, ANYH, BRIGHT and COM EUROPE with 29 participants.

In 2022, STICHTING participated in the Summer School for Female Leadership 2022 both the Winter (Sven Kallen in Nice) and Summer (Nadia Stomp in Prague) to speak about climate action and give the #NextGenChangeMakers a clear idea of how they can participate in climate action and make it more scalable.

In 2023, STICHTING successfully applied to have a Partner Event for the EU Green Week 2023. The event was organised by EURACTIV in the form of an online webinar on "Education for a sustainable future - Empowering individuals to tackle climate change". Find the after article here. EUN organised the "40th Science Projects Workshop in the Future Classroom Lab". All details can be found on the website and also in the updated Annex 38 E.2 Deliverable Proceedings - presentations at international conferences.

Final Conference
The LT's Conference was organised by STICHTING on June 19th, 2025, at EUN offices as a hybrid event and streamed live through LT's YouTube channel. The Conference consisted of three roundtable discussions that brought together our network of partners, clients, and thought leaders to reflect on the challenges of scaling reforestation in Europe, explore the future of nature-based solutions such as carbon removals and biodiversity credits, and how to drive community engagement across Europe. Mr. Bas Eickhout, MEP and Co-President of the European GreenLeft Party, introduced the conference by video, and Mr. Marco Onida, Senior Expert Forestry at DG Environment, and Mr. Christian Holzleitner, Head of Unit for Land Economy and Carbon Removals of DG Clima, introduced the first two roundtables and participated in the different discussions.

STICHTING used Streamyard to record and stream the conference online. EUN provided the space, their Future Classroom Lab and organised the catering for attendees. 30 people attended the conference. The recording has so far received 354 views and 9,721 impressions so far. The agenda and list of attendees can be found here.

E.2.2 Technical Communication for targeted stakeholders
Interest Group Meetings
Since the start of the project, **145 interest group meetings** have taken place with different stakeholders including NGOs, Public institutions, nurseries, landowners and

interested businesses to find synergies and tree planting opportunities. More details in Annex 39 E.2 Interest Group Meetings.

Conferences/Presentations
Since the start of the project, the LT project has been present and participated in **51 conferences/presentations** to disseminate its objectives and activities: STICHTING (23), EUN (10), VOLTERRA (5), UB (3), CERTH (3), GYNZY (2), IFER (1), STICHTING/VOLTERRA (1), STICHTING/UB (1), STICHTING/EUN (1), and IFER/VOLTERRA/UB/STICHTING (1). In sum, **47,391 people** participated in the events. All details can be found on the website and also in Annex 38 E.2 Deliverable Proceedings - presentations at international conferences.

Scientific Publications
In total, **6 scientific publications** were developed over the course of the project by UB, IFER, and EUN, with support from STICHTING. These papers address both technical and social dimensions of the project and are at various stages of development: three are published, one is under peer review, one has been submitted, and one is in preparation. In parallel, three scientific reports on sustainability education were developed by the EUN. See the Deliverable E.2 "5 Scientific publications" for further information.

Policy Feedback
Over the course of the project, EURACTIV has organised **8 policy feedback/ stakeholder workshops**, each including a post-event article and event video, and including speakers from DG Environment, MEPs, and other relevant institutions. Find all details in Annex 36 E.1 EURACTIV's activities and Annex 38 Deliverable E.2 Proceedings - presentations at international conferences.

As approved in the Project's Amendment, the Deliverable "Minutes from meetings with MEPs (EUN)" was replaced by "Policy recommendations related to the educational activities of the LT project (EUN)". In this regard, EUN first held two Policy Cafes with MoEs in 2024 to gather their feedback. The LT Policy Recommendations, refined and produced in 2025, target national and regional policymakers, educators, and educational authorities. Find the full report and final recommendations in Deliverable E.2 "Policy Recommendations related to the educational activities of the Life Terra project". In addition, the Background Document "Leveraging Life Terra Resources to Inspire Climate Action: Through the Lens of Research and GreenComp" was drafted in 2024 by EUN to introduce the research behind TM's resources and explore the links to the EU GreenComp.

STICHTING organised the Ambassadors Event in Las Rozas (Madrid) where 10 European embassies came together to plant trees as the closure of the EUTPD. Each Ambassador was interviewed and asked about the future of tree planting in their respective countries. The event was also attended by several authorities such as the **EC's Representative in Spain Mr Lucas Gonzalez Ojeda**, the Mayor of Las Rozas and the Director General of Biodiversity and Forest Management of the Madrid Region. STICHTING was also able to meet with the **French Minister of Agriculture and Food Sovereignty, Mr. Marc Fesneau** during one of our events in France to plan a joint event in collaboration with Scouts Unitaires de France, Plantons pour l'Avenir and Forestry Club de France. More information here.

E.2.3 Networking
LEGAMB drafted a preliminary list of 29 relevant projects to start exchanging information/experiences and explore further collaborations.

A specific Networking Report Template was drafted in order to describe which kind of activity occurred, when, where and which partners were involved and any possible follow up of such activities. In total, **19 Networking Activity Reports** were created describing the more structured networking activities implemented, beneficiary responsible and action taken. All these reports have been collected as a separate chapter of a not foreseen Annex 40 E.2 Networking Reports.

Action E.3 - Call to Action

Foreseen start date:	*01/07/2020*	*Actual start date:*	*01/11/2020*
Foreseen end date:	*30/06/2025*	*Actual (or anticipated) end date:*	*End of project*

E.3.1 Campaign planning & E.3.2 Carrying out the call to action

Social media campaigns

In order to raise awareness and to convert our audience into active LT supporters a plan for a "call to action" campaign was developed for SM by BRIGHT. (See Deliverable E.3 "Report on Call to Action Campaign" for more details).

Besides the daily posting, specific SM campaigns (created by BRIGHT since January 2023 and by STICHTING onwards), such as the 'gift that keeps on growing', Earth's Day and #LetsAdopt1000treesTogether were created to encourage B2C tree adoptions. Regarding B2B, as the SM channels have continued to grow, we were able to provide the Business Development Team with leads and assets to support LT's mission (especially via LinkedIn).

As approved in the Amendment, Installations and Street campaigns were not used due to COVID and as an inefficient way to reach people. The budget was moved to "Scriptwriting and editorial services" and "License of Stock video".

Life Terra Climate Action Awards

In July 2022, STICHTING released the first edition of the LT Climate Action Awards. These awards want to recognise and thank our most committed and involved parties that support the LT actions. The awards serve as a tool to increase the project's visibility and generate engagement on SM and press. It also helped encourage the winners and related stakeholders to collaborate with the project and raise awareness and credibility. During the 4 editions, 43 people were awarded including big names such as Nico Rosberg, former F1 pilot and eco-entrepreneur, or Elisa, Italian singer. Find more information and pictures on edition 1, edition 2, edition 3 and edition 4 on our website. And find all videos in our Youtube Channel list.


European Tree Planting Day

As one of the pillars of our "After Life" activities, we launched the EUTPD initiative in November 2024 in collaboration with Nadace Partnerství. Envisioned as a festival of nature, it wants to unite communities to plant trees simultaneously across Europe. For it, we created the initiative's new website and SM channels (Instagram, Facebook and Youtube). Opening new channels is always challenging, however, we managed to reach 35.5k people on SM and 6.5k website visitors.

E.3.3 Evaluation of Success of Awareness Campaign

The SM campaigns prove successful to grow LT's channels reach and generate awareness. Campaigns on Instagram and Facebook reached over **1.5 million people** and received 54,000 clicks. LinkedIn campaigns targeted professionals and companies, resulting in 56,477 impressions, 478 clicks, and 61 confirmed webinar sign-ups. However, despite strong reach and engagement, conversion campaigns aimed at individual donations or adoptions (i.e. B2C) delivered limited results and proved to not be a sustainable business model. On the other hand, B2B campaigns led to concrete outcomes and heightened interest in LT's biodiversity and carbon removal solutions. See more detailed results in Deliverable E.3 "Report on call-to-action campaign".

BRIGHT evaluated the SM channels on a monthly basis since January 2023, with a special focus on the amount of people reaching. Since then and until the end of the project, this task was taken over by STICHTING.

6.3. Evaluation of Project Implementation

The implementation of the LT project unfolded amidst unprecedented global challenges, including the pervasive **COVID-19 pandemic**, escalating geopolitical conflicts such as the **war in Ukraine** and tensions in the **Iran/Israel and Gaza regions**, alongside significant **inflationary pressures** and a widespread **energy crisis**. These unforeseen external factors impacted the project's trajectory and operational environment.

The **COVID-19 pandemic**, in particular, presented immediate and substantial hurdles from the project's inception. As a project heavily reliant on citizen engagement and public gatherings for planting events and awareness campaigns, the widespread restrictions on movement, social distancing mandates, and public health concerns directly constrained our ability to execute planned activities. This necessitated rapid adaptation and innovation in our operational strategies. Furthermore, the subsequent geopolitical conflicts have regrettably led to a significant redirection of global funds and drive, shifting focus from crucial climate-related issues and organizations towards defense and military spending. This broader shift in priorities created an even more challenging funding and operational environment for climate action initiatives.

Despite these unpredictable external pressures, the consortium's resilience and adaptive management proved instrumental. The **WG methodology** applied to manage the consortium and its respective actions played a pivotal role in maintaining organizational efficiency. This framework ensured beneficiaries remained organized and aligned, with STICHTING effectively acting as a transversal lead across all actions. This internal coordination mechanism enabled us to navigate the turbulent external landscape, allowing us to proudly report the successful achievement of our project results.

Project objectives

Proposed	Evaluation
Engage a monumental number of individual citizens and stakeholders to take action on CC mitigation by facilitating the planting of 500 million trees in Europe	This objective has been met with resounding success. LT garnered exceptional acceptance and widespread media reach, generating over a billion potential impressions across thousands press mentions. Crucially, we have successfully engaged hundreds of thousands of individuals in numerous citizen planting events held across Europe. Beyond physical participation, countless people have actively contributed and engaged through the LT platform by adopting and receiving trees online, broadening our reach and impact.

Connect these participants through an innovative and comprehensive web platform and app that organises and streamlines the planting process for scaling up and scaling out	The project has excelled in developing and evolving the LT platform into a truly innovative and comprehensive web app solution. It now consolidates a vast range of information regarding our planting events and trees, serving as a central hub for all participants. Furthermore, the robust internal systems developed have empowered the relatively small STICHTING team to efficiently manage hundreds of events each season and effectively engage with hundreds of planting partners across Europe, proving instrumental in scaling our operations.
Innovate in the latest monitoring and satellite technologies to provide citizens and specialists alike with precise and transparent data	This objective has been successfully addressed through the integration of our three-level monitoring system, as detailed in Action D.1. This advanced methodology provides insights and transparency over our planting projects to anyone accessing our platform. It ensures that both citizens and specialists have access to precise and verifiable data, fostering trust and accountability in our reforestation efforts.
Inspire the next generation of EU citizens to thrive and face off CC challenges ahead, through a unique STEM-based environmental sustainability education programme.	The TM educational package has been a phenomenal success in inspiring the next generation. It has been enthusiastically adopted by thousands of teachers around the world, providing them with a unique STEM-based environmental sustainability education program. This widespread adoption underscores its effectiveness in educating and engaging young minds on critical CC challenges, preparing them to become future environmental stewards.

Expected results

Proposed	Evaluation
Demonstration phase (Y1 and Y2)	
Develop one platform that unites stakeholders	Thousands of users have registered so far. more information on all features in action C.1
Plant, geotag & monitor 1,2M trees - restore 1,200ha - Capture 26k tons of CO2e	1,35M trees planted, 3000+ ha, 17k CO2eq to be captured until project ends (Action C.3 and C.5)
Provide proof-of-concept for various nursery cultivation, planting and monitoring methods to increase efficiency in professional tree plantings and validate using LCA	Biochar trials completed and protocol developed. TreeRover successfully tested in several different environments. All validated by LCAs (Action C.5)
Generate external funding to finance relocation independently	Almost 5M euros were raised (Action C.6)
Replication phase	
Expand Life Terra platform	Several new features launched. More details in action C.1
Plant, geotag & monitor of 54 million trees, thereby restoring 54,000 ha of land that captures 335.000 tons of CO2e by the project's end	29,75M European trees planted, 39.000+ ha, 404k tn of CO2eq to be captured until project ends (Action C.7 - incl. partner trees)
Train European nurseries in sustainable substrate production, expand use of professional planting technology	Given logistical and economic challenges found in our trials, other nurseries were reluctant to implement biochar protocols (Action C.7)
Over the course of the whole project	
Teach STEM based sustainability for 14,000 classrooms	35,115 classes have used the TM educational package (Action C.4)

Reach 100M individuals through online dissemination and awareness raising	More than 1 billion potential impressions through all our dissemination materials and press mentions (Action E.1, E.2, E.3)
Engage 1M people to plant trees and 2.2k Terra Leaders	More than 120 thousand people came to plant trees with us (C.3 & C.5), 1,578 TLs (C.2) and a network of more than 84 organisations all over Europe has been collaborating with LT (C.7)
Change behaviour in 25% of all individuals registered on the platform.	88% of students studied demonstrated intention to change their behavior (Action D.2)
Create 50 FTE	Taking into account their dedication to the project we had 52 FTEs in the project (they were not FTEs during the 5 years of the project as the project activities were foreseen to be more intense in the demonstration phase, and less dedication inside the LIFE budget in the replication phase).
Receive 3,000 Press mentions	2587 press mentions. *Good to note that, as of 09/2024 EURACTIV stopped using the Meltwater tool to collect press mentions which significantly decreased our capacity of tracking them. (Action E.1, E.2, E.3)
Provide 170€ million stimulus to the green economy	LT returned 48,2M euros as stimulus to the green economy (Action F.1)

The project delivered several immediately visible results: the LT platform became a robust, widely used tool for managing planting events and partner engagement; over 34 million trees were registered; the TM educational package reached over 35,000 classrooms worldwide; and more than €5 million in external funding was secured. The GA amendments played a decisive role in enabling completion of the TreeRover prototype and expanding the partner network to 34 European countries and 26 EU member states. Without this amendment, large-scale partner engagement and the innovative planting machine tests would not have been possible.

Results that will only become apparent over time include the full environmental impact of the planted trees and restored land, particularly their CO_2 capture potential, which is estimated at 4.8 Million tons of CO2eq in 40Y. As the trees mature, this sequestration will significantly contribute to climate mitigation well beyond the LIFE funding period.

Replication efforts achieved broad geographic coverage across nearly all EU member states, involving thousands of teachers adopting the TM and hundreds of organizations reporting or partnering through the platform. The “Partner Trees” focus enabled LT to report nearly 50% of trees under the EU’s 3 Billion Trees Pledge, thanks to LT’s ongoing leadership in the MapMyTree initiative.

Dissemination Impact

Regarding dissemination activities, the LT project has implemented a comprehensive and highly effective dissemination strategy, leveraging a diverse range of communication channels to maximize reach, raise environmental awareness, and inspire climate action across Europe. Our efforts have resulted in remarkable engagement and visibility throughout the project's duration.

Through a multi-platform approach encompassing our website, newsletters, SM, and traditional media, LT has achieved significant impact. The project website has seen consistent growth, reaching over 17,000 average monthly visitors, with its landing pages accumulating over 432,950 views. Our newsletters, with 55 editions published in seven languages and reaching nearly 2,000 subscribers, maintained an impressive average open rate of 41.76%. SM presence, particularly on LinkedIn, proved highly effective, accumulating over 17,000 followers and generating more than 13.6 million impressions. Storytelling through high-quality video production was a strong focus, with 164 videos created, reaching over 2.6 million people across various platforms, complemented by dynamic short-form content on TikTok and Instagram.

Beyond digital channels, LT achieved extensive press recognition, with 2,607 mentions in traditional and digital media across 16 languages, reaching an estimated potential audience of over 3.3 billion people. We organized 40 local dissemination events, engaging nearly 10,000 participants, and participated in 51 international conferences and presentations, reaching over 47,000 attendees. While some challenges were noted, such as the high cost of comprehensive media monitoring tools impacting press mention tracking, and limited B2C conversion from general awareness campaigns, the overall strategy proved highly successful in raising awareness, engaging stakeholders, and supporting the project's ambitious objectives.

Policy Impact

The LT project directly contributed to evolving European policy in climate mitigation, biodiversity protection, and sustainable land management. Our activities actively supported key legislative frameworks, including the **New EU Forest Strategy 2030**, **EU Biodiversity Strategy 2030**, **EU Nature Restoration Law**, and the **Fit for 55 (EU Green Deal)** package, with educational initiatives feeding into **GreenComp**. Based on project experience and engagement with policymakers, we formulated concrete recommendations: prioritizing diverse, climate-resilient forestry; strengthening small forest owner support; establishing a robust EU biodiversity governance framework; aligning climate finance with ecosystem restoration, especially through the **CRCF**; and enhancing teachers' sustainability competencies. This direct input aims to shape future policy, reinforcing our commitment to a more sustainable Europe.

LT actively engaged with policymakers and stakeholders across all levels, from local to EU. This included direct meetings in Brussels with DG Environment, ELO, and key cabinet members, alongside consistent participation in numerous webinars and conferences on natural ecosystem regeneration and climate-smart forestry. A significant, concrete contribution to EU policy initiatives is our direct involvement in DG Environment's **"Map My Tree"** development, where we actively helped to define the relevant reporting criteria. Additionally, LT is proud to be among the **top 8 organizations reporting trees** to MapMyTree and stands as the **only organization present in 20 countries**, significantly outpacing others. As one of the Lead Reporters, we have engaged with our network and 16 organizations are reporting through us, contributing approximately 20% of the total of organisations, and facilitating around 17 million new trees, representing 46% of total trees reported.

LT's influence in "Brussels" is recognized due to our ambitious impact goals, multi-country and multi-partner approach, open-source attitude, strong biodiversity focus, innovative "Klimawald" concept, and transparent tagging and monitoring. Our work directly supports and informs the development of crucial frameworks for **Carbon Removal** and **Biodiversity Credits**. Our goal is a holistic valuation of ecosystem

services, addressing funding gaps for restoration projects and preparing Life Terra as a recognised project developer for nature restoration projects and an active participant in the credit market as foreseen under the **CFCF legislation**. LT's key advantages - providing market access for small landowners, offering a variety of EU-based projects, and championing a Payment for Ecosystem Services approach - position us uniquely to drive demand for high-quality, verifiable nature-based solutions within Europe, contributing to a truly balanced and sustainable economy.

6.4. Analysis of benefits

1. Environmental benefits

a. Direct / quantitative environmental benefits:

The LT project has delivered substantial environmental benefits, marked by significant quantitative achievements in reforestation, carbon removal, and biodiversity enhancement across Europe and beyond.

- **Reforestation:**
  - **Total Trees Planted:** Over 29.75 million trees registered.
  - **Total Area Reforested:** Approximately 39,000 hectares of land planted.
- **Carbon Removal:**
  - **Total CO2 Estimated to Capture:** An estimated 4.8 Million tons of CO2eq are projected to be captured by the trees planted over 40Y.
- **Biodiversity:**
  - **Species Diversity:** The project actively promoted and planted 726 species across all plantings.
  - **Geographical Reach:** Planting activities extended across over 2,300 distinct plots in 26 EU Member States, 34 European countries, and more than 50 countries worldwide, significantly contributing to biodiversity restoration across varied ecosystems.

It should be acknowledged that most of the environmental benefits of this forestry project can only start to be visible after several years from project implementation when trees have started to mature. This is especially the case for soil improvements, biodiversity, and carbon fixation.

b. Qualitative environmental benefits

LT has generated profound qualitative environmental benefits, particularly in fostering behavioral change, enhancing awareness, and demonstrating long-term sustainable practices. Our extensive activities have reached a vast audience, significantly raising public consciousness about CC. More specifically, the TM educational package, adopted by over 35,000 classrooms, is cultivating a generation more aware of CC and its impacts, fostering a deeper understanding of environmental challenges from a young age. This educational outreach, combined with the direct participation of over 120,000 individuals in planting events, has instilled a sense of stewardship and connection to nature. The engagement of over 1500 TLs and numerous NGOs in organizing planting events, alongside the 27,000 platform users adopting or gifting trees, has created a widespread movement of active environmental contributors. This impact is further evidenced by surveys of our CFC users, revealing an 88% willingness to change their behavior, indicating a tangible shift towards more sustainable lifestyles.

The new technologies demonstrated, such as the [redacted] and advanced monitoring tools, promise significant future efficiencies and cost savings in reforestation and carbon capture efforts. This innovation not only makes large-scale planting more viable but also contributes to climate adaptation. For instance, the strategic planting of urban trees offers crucial benefits like heat island reduction and improved air quality. Furthermore, our project's focus on testing and deploying more resilient species, as seen in our "Klimawald" concept, is vital for ensuring that future forests can effectively cope with the challenges of CC, such as increased droughts and

extreme weather events. These spin-off effects contribute to building more resilient ecosystems and communities capable of adapting to a changing climate.

2. Economic benefits

The LT project has generated significant economic benefits, demonstrating its capacity to stimulate the green economy and create substantial employment opportunities across Europe. From its inception, the project received crucial LIFE co-funding, which, combined with rapidly increasing private sector investment, allowed for a robust expansion of operations and teams.

Within the project consortium, **over 70 individuals were hired specifically to the project**, encompassing a diverse expertise range. These roles include dedicated project managers specializing in reforestation initiatives, expert fundraisers actively channeling private capital towards climate mitigation, technology developers implementing innovative solutions for transparency in the reforestation sector, and communication specialists engaging a wide spectrum of stakeholders to foster greater awareness and active contribution to climate action. Beyond direct employment, the project has likely created or strengthened **hundreds of indirect jobs** through the extensive network of suppliers subcontracted across Europe and via the more than 100 organizations that collaborated with LT throughout the project period (further details in Action C.2).

Furthermore, LT has successfully raised almost **€5 million euros externally** from the private sector, a testament to its compelling mission and robust fundraising activities (more details in Action C.6). This substantial private funding represents a direct investment into sustainable practices and activities, providing a significant economic impulse to Europe's green economy. The total economic impact of the project must also consider the investments realized by our landowners in activities such as soil preparation, fencing, maintenance, and the harvesting of fruits and nuts.

Additionally, the project's holistic approach, including its commercialization of verified **Carbon Removal Credits** and other **Nature-Based Services credits** (such as biodiversity and water retention), holds immense promise for future economic impact. This positions LT to drive further investment and job creation as demand for high-quality, verifiable European nature-based solutions continues to grow, particularly with the anticipated reinforcement of the EU's Carbon Removal framework.

3. Social benefits

The LT project has delivered substantial social benefits, positively impacting a wide array of stakeholders across Europe. Beyond the direct employment of over 70 people within the consortium, the project fostered significant engagement and empowerment at community and individual levels.

Over **120,000 individuals** actively participated in tree-planting events, providing them with invaluable opportunities to connect with nature, enhance their understanding of ecosystem services, and strengthen community bonds. Feedback consistently highlighted positive experiences, with participants eager to recommend LT events to others, amplifying the project's indirect social reach (More info in Action D.2). A dedicated effort to train over **1500 individuals as TLs** provided in-depth knowledge and skills, empowering them to lead planting events and inspire climate action within their communities. This robust network, alongside collaborations with **84 organizations** across Europe, significantly expanded our capacity for local engagement and action. The LT platform itself has engaged over **27,000 users** who created accounts to tag and monitor trees, fostering a deeper sense of stewardship and environmental awareness.

Perhaps one of the most profound social impacts has been within the education community. The TM educational package has been adopted by over **35,000 classrooms** globally, successfully raising awareness on sustainability and CC. This program has significantly contributed to students' and educators' ability to adopt environmentally-friendly behaviors. Furthermore, our teacher training initiatives, including MOOCs, have had a substantial impact, with participants reporting enhanced skills in teaching sustainability and a strong intention to implement new strategies in their classrooms. This widespread educational outreach is cultivating a more environmentally conscious and proactive generation.

4. Replicability, transferability, cooperation:

The LT project has demonstrated an exceptionally high likelihood of replicability and transferability. This has been evident since the project's inception, with expansion into new countries occurring much earlier than initially foreseen; for instance, opportunities led us to establish a presence in Belgium, Germany, and the Czech Republic within the first years, well ahead of the planned Year 3 entry. Our model has proven highly effective in fostering cooperation across diverse regions, leading to successful replication efforts in **26 EU Member States**, **34 European countries**, and extending our reach to over **50 countries worldwide**. This broad geographical dispersion highlights the project's universal appeal and its capacity to be adapted to various local contexts and needs. The project's high visibility and clear benefits for stakeholders, including landowners, local communities, and environmental organizations, have been key drivers for this widespread transferability.

From its very beginning, the LT project adopted a "close-to-market" approach, actively engaging private stakeholders to co-finance our initiatives. Our efforts have been successful, demonstrating the feasibility of our model. The Stichting's continued operation well beyond the project's end is the strongest proof of this success. The main focus of STICHTING in the After LIFE period will be the further development and certification of carbon removal credits, which have not only been certified but are already being successfully sold in the market within the LIFE project period. This clearly indicates that the project's replication is primarily market-driven, responding directly to a growing demand for high-quality, verifiable nature-based solutions.

While our market-driven approach is strong, we acknowledge that the project's potential can be highly amplified by supportive policy frameworks. The approval and reinforcement of the Carbon Removal framework developed by the EU Commission, which could mandate emissions compensation to a broader range of companies, particularly within Europe, would significantly boost demand for our Nature-Based Services credits (including carbon removal, biodiversity, and water retention). This policy reinforcement would create an even more favorable market environment, accelerating the project's scale and impact, and further solidifying its role as a leader in European reforestation and ecosystem restoration.

5. Best Practice lessons:

Throughout its implementation, LT has established several key best practices, particularly in the realm of citizen-driven reforestation and sustainable plant production. A significant contribution has been in standardizing the presentation of citizen-driven reforestation efforts; recognizing the sector's current lack of consistent standard, LT developed and rigorously enforced a highly structured approach to compile, store, and present comprehensive tree planting data, including species, quantities, precise geolocations, contributor details, and project descriptions.

By actively engaging with numerous organizations across Europe, LT has effectively promoted and reinforced the adoption of these standardized data gathering and structuring practices, fostering greater transparency and comparability across diverse initiatives. Concurrently, VIVEROS, through its trials, established a protocol on how biochar can be used as a peat substitute in plant production. Despite encountering logistical and economic challenges that limited immediate large-scale adoption, this protocol serves as a valuable best practice guide for future applications, offering a scientifically validated method for nurseries to enhance sustainability in their operations.

6. Innovation and demonstration value:

The LT project has delivered significant innovation and demonstration value, amplified by EU funding, across national and international levels. This value spans technology, processes, nature management methods, and models for stakeholder involvement, positioning Europe as a leader in citizen-driven reforestation and climate action.

LT has pioneered a comprehensive digital platform that organizes and compiles data on tree planting, including species, quantities, precise geolocations, and much more. This highly structured approach sets a new standard for transparency in citizen-driven reforestation efforts, with the potential for global extension. Concurrently, LLC successfully developed and demonstrated the [redacted], a state-of-the-art technology adapted for planting on degraded lands. Validated through extensive trials in [redacted], the [redacted], and [redacted], the [redacted] offers significant operational advantages, including enhanced accessibility, efficiency, and quality in large-scale reforestation. Furthermore, VIVEROS successfully demonstrated a methodology for incorporating biochar as a peat substitute in seedling production. The established protocol serves as a valuable best practice, and the knowledge acquired is being actively shared with the industry to overcome the challenges found. Beyond these technological advancements, LT has been instrumental in **demonstrating innovative types of carbon removal credits**, specifically designed to be more accessible and suited for small-to-medium landowners. These efforts directly inform and anticipate the upcoming EU Carbon Removal framework, showcasing practical models for monetizing ecosystem services.

The environmental impacts of these novel activities were rigorously evaluated through LCA, providing a robust framework that can be applied to assess similar projects. This holistic approach to innovation, from cutting-edge planting technology and sustainable nursery practices to transparent data management and novel financial instruments, underscores the project's profound demonstration value in fostering effective, scalable, and citizen-led nature-based solutions.

7. Policy implications:

The LT project has significantly contributed to shaping regional, national, and European climate and biodiversity legislation (see also Policy impact on page nr 60). As highlighted and expanded also in our E.1 and E.2 actions, our continuous activities surrounding policy, such as webinars, seminars, participation in Green Week, newsletters, and targeted outreach, have been instrumental in fostering dialogue and collaboration. These efforts have been further amplified through events involving policymakers, including high-profile conferences, the Ambassadors event in Madrid, and symbolic initiatives like tree-planting ceremonies with political representatives. These activities have strengthened our role as key contributors to the policy landscape, creating bridges between science, advocacy, and decision-making.

Our innovative approaches have actively supported and aligned with major EU frameworks, including the **New EU Forest Strategy 2030**, the **EU Biodiversity Strategy 2030**, the **EU Nature Restoration Law**, and **Fit for 55** under the **EU Green Deal**. In addition, our educational initiatives have contributed to the development of **GreenComp**, the European framework for sustainability competencies. Notably, we are recognized as one of the top 8 reporting organizations for DG Environment's **"Map My Tree" initiative**, an achievement made unique by our presence in 20 countries. Through this initiative, we have streamlined tree planting operations across borders, establishing a model for scalable and efficient afforestation activities.

Furthermore, our work has directly informed the development of **Carbon Removal Credits** and **Biodiversity Credits**, critical tools for advancing the EU's climate goals. These credits serve as essential mechanisms for valuing ecosystem services and incentivizing sustainable practices. By integrating these frameworks into our projects, we are contributing to the creation of robust, science-based approaches to climate action and biodiversity conservation.

Despite these considerable achievements, scaling up the "Life Terra Trees" initiative has encountered challenges, primarily due to funding limitations. All private funding raised thus far has been entirely voluntary, derived from Corporate Social Responsibility (CSR) commitments by individual companies. However, the introduction of new carbon regulations could transform this funding landscape. If companies operating within Europe were required to offset their emissions under binding obligations, this would significantly increase the demand for our projects and enable us to plant substantially more trees.

To address these challenges and unlock new opportunities, we remain deeply engaged with policymakers to advocate for a supportive regulatory environment. Key to this advocacy is the promotion of holistic ecosystem service valuation and the establishment of a strong **EU Carbon Removal framework**. These efforts are designed to boost demand for high-quality, European-based tree planting projects and to ensure their long-term sustainability. By fostering a regulatory framework that values the full spectrum of ecosystem services, we aim to secure the necessary financial and policy support to maximize our impact and contribute meaningfully to Europe's climate and biodiversity goals.

Life Terra's international Ambassadors Event (Jan '25) with 10 EU Ambassadors, the European Commission's Representative in Spain, Lucas González Ojeda and the Mayor of Las Rozas, José de la Uz.