

LIFE PROGRAMME

LIFE Standard Action Project

Circular Textile Recovery Network for Mediterranean Cities RECITEX

Field	Value
Call Identifier	LIFE-2026-SAP-ENV-ENVIRONMENT
Type of Action	LIFE Standard Action Project (SAP)
Duration	42 months
Total Budget	EUR 3,000,000
EU Contribution	EUR 1,650,000

Abstract

RECITEX - Circular Textile Recovery Network for Mediterranean Cities - is a LIFE Standard Action Project that will demonstrate, operationalise and replicate a complete municipal system for the separate collection, automated NIR sorting and fibre-to-fibre recycling of post-consumer textiles across three Mediterranean cities: Naples (IT), Valencia (ES) and Athens (GR). Starting from a combined baseline separate collection rate of 12% and near-zero fibre-to-fibre recycling output, RECITEX will deploy 150 IoT-enabled smart collection points, upgrade a shared NIR sorting facility to 3,000 t/year throughput capacity, and formalise offtake agreements with at least three certified EU fibre recyclers. By project end (month 42), the system will separately collect approximately 12,600 t/year of post-consumer textiles, diverting them from landfill and incineration; avoid at least 18,900 tCO₂e/year; produce 1,800 t/year of quality-sorted secondary fibre entering certified recycling value chains; and directly engage 300,000 citizens through structured behavioural change campaigns. A Municipal Textile Recovery Governance Model (MTRGM), published in six EU languages under a Creative Commons licence, will enable at least ten additional EU cities to formally commit to system replication, multiplying project impact by a factor of ten beyond the three pilot cities. RECITEX directly supports EU Member State compliance with Waste Framework Directive Article 11(1)(e), the EU Strategy for Sustainable and Circular Textiles (COM(2022)141) and the Circular Economy Action Plan (COM(2020)98). All project data, sorting protocols and LCA results will be published in open-access repositories in accordance with FAIR data principles. Total eligible budget: EUR 3,000,000; EU LIFE contribution: EUR 1,650,000; project duration: 42 months.

Keywords: textile waste, separate collection, fibre-to-fibre recycling, NIR sorting, circular economy, Waste Framework Directive, Mediterranean cities, smart collection points, secondary fibres, municipal governance, replication

SECTION 1 - RELEVANCE AND OBJECTIVES

1.1 Objectives and Ambition

Post-consumer textiles represent one of the fastest-growing municipal waste streams in the EU, yet separate collection and high-quality recycling rates remain critically low. Across the three target cities - Naples (IT), Valencia (ES) and Athens (GR) - the baseline situation is as follows: combined annual textile waste generation is estimated at approximately 28,000 tonnes, of which fewer than 12% (ca. 3,360 t/year) are separately collected. The remainder is co-mingled with residual municipal solid waste and directed to landfill or incineration, generating an estimated 42,000 tCO₂e annually. Sorted-fibre output available for fibre-to-fibre recycling is negligible (fewer than 200 t/year combined), owing to the absence of automated near-infrared (NIR) sorting infrastructure and the lack of formalised collection governance at municipal level. The EU Strategy for Sustainable and Circular Textiles (2022) and the revised Waste Framework Directive (WFD, Directive 2008/98/EC as amended by Directive 2018/851/EU, Article 11(1)(e)) mandate separate collection of textiles in all Member States by 1 January 2025. Despite this legal obligation, most Mediterranean municipalities lack the operational systems, digital infrastructure, and citizen-engagement frameworks necessary for compliance and value recovery.

RECITEX addresses this critical implementation gap through four specific, measurable, achievable, relevant and time-bound (SMART) objectives: (i) deploy a network of 150 smart collection points (SCPs) equipped with IoT fill-level sensors and secure deposit mechanisms across three cities, raising the separate collection rate from 12% to at least 45% of generated textile waste by month 42; (ii) establish one shared automated NIR sorting facility capable of processing 3,000 t/year of collected textiles, classifying material by fibre composition into a minimum of eight categories for downstream fibre-to-fibre recycling, operational by month 20; (iii) formalise offtake agreements with at least three certified EU fibre recyclers, channelling a minimum of 1,800 t/year of sorted fibre into closed-loop recycling chains by month 42; and (iv) develop and publish a transferable Municipal Textile Recovery Governance Model (MTRGM), enabling at least ten additional EU cities to commit to replication within three years of project completion. All four objectives are directly measurable against the quantified baselines above and constitute a concrete, demonstrable contribution to the EU target of making textiles circular by 2030.

The ambition of RECITEX lies in moving beyond incremental improvement to deliver a systemic, transnational demonstration. No comparable EU-funded project has simultaneously addressed collection infrastructure, automated sorting, recycling-chain formalisation and governance replication in the Mediterranean urban context. The project goes beyond the current state of the art by: (a) integrating IoT-optimised dynamic collection logistics with NIR automated sorting in a single operational system for the first time in southern Europe; (b) operationalising WFD compliance in three Member States concurrently, generating comparative evidence directly usable by policymakers; and (c) producing a governance model calibrated specifically for Mediterranean mid-sized cities - a replication context that Nordic and north-western European precedents do not adequately address.

1.2 Relation to the Work Programme

RECITEX is directly aligned with the LIFE-2026-SAP-ENV-ENVIRONMENT call topic, specifically Priority Area 1.1 - Recovery of Resources from Waste, sub-point (g): 'Separate collection, preparation for re-use and recycling of textiles, including mattresses and footwear.' The project integrates separate collection infrastructure, automated sorting technology, and value-chain formalisation with certified recyclers - precisely the combination of interventions prioritised under the 2026 call. It also responds to Priority Area 1.2 (Circular Economy and the Environment) through the development of a replicable governance model and a market-oriented circular value chain for secondary textile fibres.

At the EU policy level, RECITEX directly supports implementation of: the Waste Framework Directive (2008/98/EC as amended by Directive 2018/851/EU), which mandates separate textile collection; the EU Strategy for Sustainable and Circular Textiles (COM(2022)141); the Circular Economy Action Plan (COM(2020)98), which identifies textiles as a key priority value chain; and the Ecodesign for Sustainable Products Regulation (EU) 2024/1781, which will progressively require recycled fibre content in textile products. By operationalising WFD compliance in three Member States simultaneously and producing a transferable governance model, RECITEX delivers clear EU added value beyond what any single national or regional initiative could achieve.

The transnational consortium spanning Italy, Spain and Greece creates a replicable blueprint specifically calibrated to the Mediterranean urban context - characterised by mid-sized dense cities, mixed public-private waste governance structures, and high textile consumption rates. This context differs substantially from the Nordic and north-western European settings in which most existing textile recovery models have been developed, and is directly transferable to the dozens of comparable EU cities that currently lack WFD-compliant separate collection systems. RECITEX therefore fills a demonstrable geographic and governance gap in the EU's textile circularity evidence base.

1.3 Concept and Methodology

The RECITEX concept is structured around a four-layer intervention logic that progresses from physical infrastructure through to market integration and systemic replication: (1) collection infrastructure; (2) sorting and quality assurance; (3) fibre-market integration; and (4) governance packaging and replication.

In Layer 1, 150 smart collection points will be installed across the three cities (50 per city). Each SCP will be equipped with IoT fill-level sensors connected to a cloud-based logistics management platform that dynamically optimises collection routes in real time. This approach is expected to reduce collection vehicle kilometres by at least 30% compared with conventional static-route systems, directly reducing operational emissions and costs. Citizen-facing interfaces will include multilingual deposit instructions and QR-code feedback mechanisms confirming deposit receipt, strengthening user trust and repeat participation.

In Layer 2, EcoTessile Srl's existing NIR sorting facility will be upgraded to process incoming material at 3,000 t/year throughput, classifying textiles into a minimum of eight fibre categories (cotton, polyester, polyester-cotton blend, wool, linen, acrylic, nylon, and mixed/residual). Quality assurance protocols will be developed in accordance with prevailing industry standards and audited on a quarterly basis by an independent verifier. This level of classification granularity is a deliberate technical advance on current Mediterranean practice, where manual and single-category sorting predominates.

In Layer 3, EcoTessile Srl will broker and formalise offtake agreements with at least three EU-certified fibre recyclers, underpinned by volume guarantees derived from project operational data. A secondary fibre price-risk mechanism will be designed and tested during the project to ensure economic viability of recycling value chains beyond the EU co-funding period, directly addressing the financial barrier that has historically limited scale-up in secondary textile fibre markets.

In Layer 4, all governance decisions, procurement templates, inter-municipal agreements, citizen-engagement toolkits and technical specifications will be codified into the MTRGM. The MTRGM will be published under a Creative Commons licence and actively disseminated via the European Circular Cities and Regions Initiative (CCRI), Eurocities and national waste management associations, with targeted replication outreach to at least 20 EU cities.

Methodologically, RECITEX builds on demonstrated best practices from Nordic textile collection systems while systematically adapting them to Mediterranean governance structures and urban morphology through participatory localisation with municipal partners. The project goes beyond prior art by integrating IoT logistics optimisation with NIR sorting in a single operational system deployed at municipal scale, and by embedding a structured replication pathway into project design from the outset rather than treating dissemination as an add-on. Environmental performance will be monitored continuously using a dedicated Life Cycle Assessment (LCA) framework applying the EU Product Environmental Footprint (PEF) methodology, ensuring that material recovery demonstrably reduces net environmental burden rather than displacing impacts to downstream processing stages. The project also coordinates with ongoing Horizon Europe research on digital textile passports to ensure that RECITEX infrastructure is technically interoperable with emerging EU traceability requirements under the Ecodesign for Sustainable Products Regulation.

1.4 Interdisciplinary Considerations

RECITEX deliberately integrates technical, social, legal and economic disciplines, recognising that textile waste system failures in Mediterranean cities are multi-causal and cannot be resolved through technological intervention alone.

On the technical side, the project combines IoT engineering, NIR spectroscopy and fibre classification, logistics optimisation algorithms, and Life Cycle Assessment. On the social side, behavioural change methodologies grounded in social marketing theory underpin the citizen awareness campaigns in WP4. All campaign content will be co-designed with local community organisations in each city to ensure genuine cultural relevance across the Italian, Spanish and Greek urban contexts, rather than applying a single translated template. Gender-disaggregated participation data will be collected throughout WP4 to identify differential engagement patterns and enable targeted corrective measures, ensuring that the system delivers inclusive environmental benefits across all population groups.

On the legal side, the consortium includes two public-law entities - the Municipality of Valencia and the Hellenic Recycling Agency - whose direct operational involvement ensures that the governance frameworks, procurement templates and inter-municipal agreements developed within the project are immediately actionable within existing municipal regulatory structures in their respective Member States, without requiring additional legislative change.

On the economic side, WP3 addresses the market-development dimension explicitly through the design of a secondary fibre price-risk mechanism and active secondary-buyer engagement, recognising that long-term system sustainability depends on commercially viable recycling value chains, not solely on collection infrastructure.

Open science principles are applied throughout: all project data, sorting calibration protocols, LCA results, monitoring datasets and the MTRGM will be published in open-access repositories under Creative Commons licences, maximising the replication potential of project outputs. Where applicable, data management will follow FAIR principles (Findable, Accessible, Interoperable, Reusable). The project also coordinates with ongoing Horizon Europe research on digital textile passports to ensure RECITEX infrastructure is interoperable with emerging EU traceability requirements, demonstrating effective complementarity between LIFE demonstration projects and upstream research and innovation investments.

SECTION 2 - IMPACT AND EU ADDED VALUE

2.1 Pathways Towards Impact

Against the quantified baseline of a 12% separate collection rate and near-zero fibre-to-fibre recycling output across the three target cities, RECITEX will deliver the following direct, measurable environmental outcomes by project end (month 42): the separate collection rate for post-consumer textiles raised to at least 45% in all three cities, corresponding to approximately 12,600 t/year diverted from landfill and incineration; avoided CO₂-equivalent emissions of at least 18,900 tCO₂e/year (calculated at 1.5 tCO₂e per tonne of textile waste diverted, applying a PEF-based LCA and verified against the landfill/incineration counterfactual); recycled secondary fibre output of 1,800 t/year entering certified fibre-to-fibre recycling value chains; and 300,000 citizens actively engaged through structured awareness campaigns. These outcomes represent a 3.75-fold increase in separate collection and a transformational shift - from negligible to industrially significant - in recycled fibre output across the three pilot cities.

The immediate pathway to these outcomes runs through the four intervention layers described in Section 1.3: SCP deployment drives collection volume; NIR facility upgrade enables quality-sorted fibre supply; offtake agreements convert sorted supply into verified recycled fibre output; and the citizen campaign generates the household behaviour change necessary to reach the 45% collection target. Each layer is designed to be mutually reinforcing: higher collection volumes improve sorting economics; higher sorting quality strengthens offtake agreement terms; and confirmed market demand for sorted fibre provides a positive feedback signal that can be communicated back to citizens.

The indirect and long-term pathway to impact operates through replication. The MTRGM will be validated with at least ten EU cities through formal Letters of Intent secured by month 36, demonstrating concrete systemic uptake beyond the project boundary. Extrapolating the RECITEX model to ten comparable cities would deliver an additional 126,000 t/year diverted from landfill and an additional 189,000 tCO₂e/year avoided - a multiplier of ten on direct project impact. RECITEX thus contributes measurably to EU Member State compliance with WFD Article 11(1)(e) and to the EU 2030 textile circularity targets across a significantly wider geographic footprint than the three pilot cities alone.

The project further strengthens the EU secondary fibre market by providing certified, consistently sorted material streams at a scale that individual municipal initiatives cannot achieve. This directly addresses the documented demand-side barrier - the absence of reliable, characterised secondary fibre supply - that currently limits fibre-to-fibre recycling scale-up across Europe. By combining supply-side demonstration with market-development activity in WP3, RECITEX is designed to catalyse private investment in recycling infrastructure that will persist independently of EU public funding.

2.2 Dissemination, Exploitation and Communication

Dissemination and communication activities will be coordinated through a dedicated Work Package (WP5), budgeted at EUR 180,000 and active from month 1 of the project. The strategy addresses three distinct target audiences with tailored channels and formats.

For citizens in the three target cities, the primary channels are social media (localised accounts in Italian, Spanish and Greek), local press and radio, school curriculum programmes, and community events. Campaign materials will be co-designed with local organisations (WP4) to ensure authenticity and cultural relevance, with the objective of generating genuine behavioural change rather than passive awareness.

For municipal waste managers and policymakers across the EU, RECITEX will disseminate through the European Circular Cities and Regions Initiative (CCRI), the Eurocities network, national waste management associations in Italy, Spain and Greece, and the CINEA LIFE project database. Three policy briefs - published at months 18, 30 and 38 - will translate project evidence into actionable policy recommendations, each targeted at a specific decision-making audience (municipal operational managers, national regulators, and EU-level policymakers respectively).

For the textile and recycling industry, dissemination will occur via sector events (including Texworld and Textile Recycling Association conferences), targeted bilateral engagement with potential replication-city partners, and a dedicated industry stakeholder workshop in month 30 to present sorted fibre quality data and offtake agreement structures to potential secondary buyers.

Key communication outputs include a project website live by month 3, a quarterly newsletter, three policy briefs, a documentary video (month 36) and the MTRGM published in six EU languages by month 38. A dedicated replication workshop will be held in Brussels in month 38, targeting municipal waste managers from at least 20 EU cities, with the explicit aim of securing ten Letters of Intent by month 36.

The project will register as a LIFE Best Practice project and submit results to the European Environment Agency's waste data flows, ensuring integration into authoritative EU-level evidence repositories. With regard to long-term sustainability, EcoTessile Srl will continue operating the NIR sorting facility on a commercially self-sustaining basis after project closure, underwritten by the offtake agreements formalised during the project. The Municipality of Valencia and the Hellenic Recycling Agency will maintain SCP collection systems within their respective regular municipal waste management budgets. These commitments are formalised in letters of intent from each partner, ensuring that all direct environmental benefits - diverted tonnages, avoided emissions and recycled fibre output - continue and grow beyond the LIFE funding period without dependency on continued EU grant support.

2.3 Summary of Impact Indicators

Indicator	Target	Measurement
Post-consumer textiles separately collected (t/year)	12,600 t/year by month 42 (baseline: 3,360 t/year; +275%)	Quarterly weighing records at SCP collection points and NIR sorting facility intake logs; audited annually by independent verifier
CO2e emissions avoided (tCO2e/year)	18,900 tCO2e/year by month 42 (baseline: 0; calculated against landfill/incineration counterfactual using PEF LCA)	LCA calculations updated semi-annually using actual diverted tonnage and verified emission factors; reported in LIFE LPI database
Secondary recycled fibre output (t/year)	1,800 t/year by month 42 (baseline: <200 t/year combined)	Offtake agreement delivery records and recycler certification reports; verified quarterly
Citizens engaged in textile collection awareness	300,000 unique citizens reached by month 42 (baseline: 0 targeted engagement)	Campaign analytics, event attendance records, school programme enrolment data; reported semi-annually
EU cities committing to replicate the MTRGM	10 cities with signed Letters of Intent by month 36 (baseline: 0)	Signed LoI documents archived and submitted to CINEA; verified at milestone review
Separate collection rate (% of generated textile waste)	45% by month 42 (baseline: 12%)	Ratio of separately collected tonnes to estimated total textile waste generation per city, using Eurostat waste statistics methodology

SECTION 3 - IMPLEMENTATION, WORK PLAN AND RESOURCES

3.1 Work Plan and Work Packages

WP	Title	Lead	PM	Duration
WP1	Preparatory Actions and Baseline Assessment	EcoTessile Srl	18	M1-M8
WP2	Infrastructure Deployment and Sorting Facility Upgrade	Municipality of Valencia	42	M6-M30
WP3	Fibre-to-Fibre Recycling Chain Integration	EcoTessile Srl	24	M12-M42
WP4	Citizen Awareness and Behavioural Change	Hellenic Recycling Agency	30	M3-M42
WP5	Dissemination, Communication and Replication	EcoTessile Srl	20	M1-M42
WP6	Environmental Impact Monitoring and LCA	EcoTessile Srl	15	M1-M42
WP7	Project Management and Coordination	EcoTessile Srl	25	M1-M42

WP1: Preparatory Actions and Baseline Assessment

Lead: EcoTessile Srl | **Person-months:** 18 | **Duration:** M1 - M8

WP1 establishes the evidence base and operational preconditions for all subsequent project activities. It delivers detailed characterisation of textile waste streams in each of the three cities using a standardised audit methodology, providing the verified quantitative baselines against which all six impact indicators will be measured throughout the project. In parallel, GIS-based mapping of SCP locations will be completed applying pedestrian accessibility, demographic density and logistics efficiency criteria, and all necessary municipal permits will be obtained. WP1 also commissions the engineering design for the NIR sorting facility upgrade and executes binding framework offtake agreements with three certified EU fibre recyclers, ensuring that downstream value-chain partners are formally committed before infrastructure investment is finalised. Completion of WP1 is the critical precondition for the procurement and installation activities in WP2.

T1.1: Textile Waste Stream Characterisation - Conduct standardised waste composition audits in all three cities, covering generation volumes, current separate collection rates, co-mingling levels and fibre composition of the collected stream. Results will establish per-city baselines for all six KPIs and inform NIR calibration requirements in WP2.

T1.2: SCP Site Selection and Permitting - Apply GIS-based multi-criteria analysis - incorporating pedestrian catchment areas, population density, proximity to existing waste infrastructure, and collection vehicle routing efficiency - to identify and rank the 150 optimal SCP locations across three cities. Consortium public authority partners will initiate and complete permitting processes in parallel, targeting full permit clearance by month 7 to avoid deployment delays in WP2.

T1.3: NIR Facility Upgrade Design and Recycler Agreements - Commission detailed engineering design for the NIR sorting line upgrade, including throughput specifications, eight-category calibration requirements and quality assurance protocols. Concurrently, negotiate and execute framework offtake agreements with at least three certified EU fibre recyclers, specifying minimum annual volumes, fibre category specifications, pricing mechanisms and quality audit arrangements.

WP2: Infrastructure Deployment and Sorting Facility Upgrade

Lead: Municipality of Valencia | **Person-months:** 42 | **Duration:** M6 - M30

WP2 delivers the core physical infrastructure of the RECITEX system. It covers the procurement, installation and commissioning of all 150 SCPs across the three cities (50 per city) and the full

upgrade of EcoTessile's NIR sorting facility to 3,000 t/year capacity. SCP installation is sequenced across cities from month 6 to month 24, allowing operational learning from early deployments to inform subsequent city rollouts. The IoT sensor network will be integrated with the centralised cloud-based logistics management platform, enabling dynamic route optimisation from the point of first deployment. The NIR facility upgrade will be completed and validated by month 20, ensuring that sorting capacity is fully operational before peak collection volumes are reached. WP2 includes comprehensive staff training for municipal collection operatives and facility staff, and the development of documented standard operating procedures for all operational activities.

T2.1: Smart Collection Point Installation - Procure and install 50 SCPs per city at GIS-selected locations, integrating IoT fill-level sensors with the centralised logistics management platform. Each unit will undergo operational acceptance testing confirming sensor connectivity, deposit mechanism function and multilingual interface operation before being declared live. A phased city-by-city rollout will allow operational lessons to be incorporated into subsequent deployments.

T2.2: NIR Sorting Facility Upgrade - Install the upgraded NIR sorting line at EcoTessile's facility, calibrate classification algorithms for the eight target fibre categories, and validate throughput and classification accuracy against contracted quality standards through a structured commissioning test programme. Independent verification of throughput capacity will be conducted at commissioning to confirm milestone MS2.

T2.3: Operational Launch and Staff Training - Deliver structured training programmes for municipal collection staff in all three cities and for NIR facility operators, covering standard operating procedures, IoT platform use, quality assurance protocols and occupational health requirements. A documented operational launch event will be organised in each city upon SCP commissioning, supporting both operational readiness and the citizen awareness campaign activities in WP4.

WP3: Fibre-to-Fibre Recycling Chain Integration

Lead: EcoTessile Srl | Person-months: 24 | Duration: M12 - M42

WP3 converts the sorted fibre output of WP2 into verified closed-loop recycled fibre flows. It operationalises the framework offtake agreements established in WP1 through regular certified deliveries of quality-assured sorted fibre batches to recycling partners, maintains full traceability documentation for each delivery batch, and conducts quarterly quality audits to ensure continued compliance with contractual fibre specifications. WP3 also addresses the long-term economic sustainability of the recycling value chain by developing a secondary fibre price-risk mechanism and actively engaging additional secondary buyers to broaden and deepen market access. By project end, WP3 will have established a commercially self-sustaining fibre supply chain that continues to operate independently of EU co-funding, underpinning the permanence of project environmental benefits.

T3.1: Sorted Fibre Delivery and Quality Assurance - Organise regular certified deliveries of sorted fibre batches to contracted recycling partners in accordance with offtake agreement schedules. Implement a quarterly independent quality audit programme covering fibre category accuracy, contamination levels and delivery volume verification. Maintain a complete chain-of-custody traceability record for all fibre flows from SCP collection through NIR sorting to recycler receipt.

T3.2: Secondary Fibre Market Development - Design, test and document a price-risk hedging mechanism suitable for use by municipalities in secondary textile fibre markets, addressing the price volatility that represents the principal commercial risk to long-term system sustainability. Conduct targeted engagement with fashion brands and textile manufacturers to identify and onboard additional secondary fibre buyers, diversifying the offtake base beyond the three initial recycler partners and strengthening market resilience.

WP4: Citizen Awareness and Behavioural Change

Lead: Hellenic Recycling Agency | Person-months: 30 | Duration: M3 - M42

WP4 delivers the citizen engagement component that is essential for achieving the 45% separate collection target. Behavioural change in household textile disposal habits cannot be driven by infrastructure provision alone; structured, culturally adapted communication is required to shift ingrained disposal behaviours at scale. WP4 designs and delivers multilingual awareness campaigns in all three cities, co-created with local community organisations to ensure cultural authenticity. It operates a dedicated schools programme covering at least one full academic year in each city, and delivers community events timed to coincide with SCP operational launches. Gender-disaggregated participation data will be collected throughout to identify differential engagement patterns and inform targeted adjustments. Campaign effectiveness will be monitored monthly through defined

behavioural indicators and adapted in response to interim performance data.

T4.1: Campaign Design and Localisation - Co-design culturally adapted awareness materials and messaging frameworks with local community organisations in Naples, Valencia and Athens. Produce a full suite of campaign assets in Italian, Spanish and Greek - including social media content, printed materials, school curriculum modules and community event formats - applying social marketing principles to maximise behavioural impact. All materials will be reviewed for gender inclusivity and cultural appropriateness before deployment.

T4.2: Campaign Delivery and Schools Programme - Deliver city-wide multimedia campaigns through social media, local press, community events and SCP launch activations across all three cities. Implement dedicated school curriculum modules in partnership with municipal education departments, targeting a minimum of 50 schools across the three cities. Monitor monthly participation indicators - including SCP deposit frequency per unit, campaign reach analytics and event attendance - and implement evidence-based campaign adjustments if interim targets are not met at month 12 review.

WP5: Dissemination, Communication and Replication

Lead: EcoTessile Srl | Person-months: 20 | Duration: M1 - M42

WP5 manages all external project communications and drives the replication pathway that multiplies RECITEX's impact beyond the three pilot cities. It produces and maintains the project website, publishes quarterly newsletters, and develops three policy briefs targeting EU municipal waste managers, national regulators and EU-level policymakers respectively. The centrepiece of WP5 is the development and publication of the Municipal Textile Recovery Governance Model (MTRGM), which codifies all governance decisions, procurement templates, inter-municipal agreement structures, citizen-engagement toolkits and technical specifications into a practical replication resource. The MTRGM will be published in six EU languages under a Creative Commons licence and actively disseminated through CCRI, Eurocities and national waste management association networks. WP5 culminates in a dedicated replication workshop in Brussels in month 38 and the registration of RECITEX results in the LIFE Best Practice database and European Environment Agency waste data flows.

T5.1: Project Website, Newsletter and Policy Briefs - Launch and maintain the project website from month 3, ensuring regular content updates, open-access publication of all public deliverables, and integration with CINEA's LIFE project database. Publish quarterly newsletters targeting EU municipal waste managers, policymakers and the textile industry. Produce three policy briefs at months 18, 30 and 38 respectively, each translating current project evidence into actionable recommendations for a defined policy audience.

T5.2: MTRGM Development and Replication Outreach - Compile, validate and publish the MTRGM in six EU languages by month 38, incorporating all operational, governance and market-development learnings from the project. Conduct structured replication outreach to at least 20 EU cities through CCRI and Eurocities networks, providing tailored technical assistance to interested municipalities. Secure a minimum of ten formal Letters of Intent from EU cities committing to MTRGM replication by month 36. Organise and host the Brussels replication workshop in month 38, targeting municipal waste managers from at least 20 cities.

WP6: Environmental Impact Monitoring and LCA

Lead: EcoTessile Srl | Person-months: 15 | Duration: M1 - M42

WP6 provides the rigorous, independent monitoring and environmental assessment framework that underpins all project impact claims and CINEA reporting obligations. It operates a dedicated project monitoring system collecting quarterly data against all six KPIs, compiles semi-annual monitoring reports, and produces semi-annual LCA updates using the EU PEF methodology to ensure that diverted textile waste genuinely reduces net environmental burden across the full product system. WP6 also delivers the GIS mapping of all intervention areas required in the LIFE final report. All monitoring data will be managed in accordance with FAIR data principles and deposited in an open-access repository, supporting both CINEA reporting and the broader open science objectives of the project. An independent external verifier will audit annual tonnage data to ensure the credibility of reported impact figures.

T6.1: Monitoring Data Collection and Reporting - Operate the project monitoring system from month 1, collecting quarterly operational data on all six KPIs from SCP weighing records, NIR facility intake logs, offtake delivery records, campaign analytics and partner administrative data. Compile and submit semi-annual monitoring reports to CINEA in the LIFE Monitoring Progress Indicator (LPI) format. Engage an independent external auditor to verify annual tonnage data and confirm impact claims.

T6.2: LCA and GIS Deliverables - Conduct semi-annual LCA updates using PEF methodology, incorporating actual

diverted tonnage data and verified emission factors to calculate avoided CO2e emissions and other environmental impact categories. Produce the final comprehensive LCA report (D6.2) for submission with the final project report. Compile and quality-assure the GIS file of all intervention areas (D6.3) for submission as a public deliverable.

WP7: Project Management and Coordination

Lead: EcoTessile Srl | Person-months: 25 | Duration: M1 - M42

WP7 provides overall project coordination, financial management, consortium governance, risk monitoring and formal liaison with CINEA throughout the 42-month project duration. EcoTessile Srl, as coordinator, operates the Project Steering Committee with quarterly in-person meetings rotating across the three partner cities, manages all financial flows and cost reporting in accordance with LIFE Grant Agreement requirements, maintains the shared project management platform, and coordinates risk monitoring and escalation in accordance with the procedures defined in the Consortium Agreement. WP7 also prepares and submits all mandatory progress, mid-term and final reports, and manages audit preparation. Effective WP7 execution is the operational precondition for all other work packages delivering on schedule and within budget.

T7.1: Consortium Governance and Financial Management - Convene and chair quarterly Project Steering Committee meetings, maintaining formal minutes and decision logs. Manage all financial flows between CINEA and consortium partners, maintain complete financial records in audit-ready format, and coordinate the designation of a dedicated project manager at each partner organisation to ensure operational continuity and clear accountability throughout the project lifecycle.

T7.2: Reporting and CINEA Liaison - Prepare and submit all mandatory project reports - including the mid-term progress report (D7.1, month 21) and the final report (D7.2, month 42) - in full compliance with LIFE Grant Agreement reporting requirements and CINEA templates. Maintain regular proactive communication with the assigned CINEA Project Officer, flag emerging risks or deviations promptly, and coordinate responses to any monitoring queries.

3.2 Consortium Composition

Organisation	Country	Type	Role	Description
EcoTessile Srl	Italy	Private company (SME)	Coordinator	Project coordinator; leads NIR sorting facility upgrade and operation, fibre recycler partnerships, environmental monitoring, dissemination and overall project management.
Municipality of Valencia	Spain	Public authority (municipal government)	Partner	Leads SCP deployment in Valencia; manages citizen engagement campaigns; co-leads WP2 infrastructure deployment; contributes to governance model development.
Hellenic Recycling Agency	Greece	Public body (national agency)	Partner	Leads citizen awareness and behavioural change campaigns across all three cities (WP4); oversees SCP deployment in Athens; contributes expertise in national waste governance and regulatory

				compliance.
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The RECITEX consortium has been assembled to provide precisely the combination of complementary, non-overlapping competencies required to deliver a fully integrated textile recovery system - from collection infrastructure to fibre market integration - and to do so in a transnational context that maximises the replicability and EU relevance of project results.

EcoTessile Srl brings proven industrial-scale textile sorting technology, established relationships with EU fibre recyclers, and experience in LCA and environmental monitoring. As a private SME operating in the recycling sector, EcoTessile also embodies the commercial sustainability model that the project is designed to demonstrate: a private operator capable of running the sorting facility on a commercially viable basis after public funding ends. The Municipality of Valencia provides direct municipal operational capacity, public administration expertise in waste governance and service procurement, and the institutional credibility essential for developing governance frameworks that other municipalities will trust and adopt. The Hellenic Recycling Agency contributes national-level regulatory expertise in waste governance, established citizen engagement infrastructure and experience of operating extended producer responsibility schemes - directly relevant to the behavioural change campaigns in WP4 and the governance model development in WP5.

The transnational character of the consortium - spanning three Mediterranean Member States with distinct regulatory contexts, administrative cultures and urban morphologies - is not incidental but essential. Developing a governance model validated across Italian, Spanish and Greek municipal contexts produces a replication resource of far greater credibility and applicability than any single-country demonstration could generate. The consortium's collective experience of operating within different national waste regulatory frameworks means that the MTRGM will be explicitly designed to accommodate regulatory variation, making it genuinely usable by the full range of Mediterranean and southern European cities for which it is intended. No single national partner could produce this outcome independently.

3.3 Milestones

ID	Title	WP	Due	Verification
MS1	Baseline assessment and SCP site selection completed	WP1	M8	Baseline report and GIS site selection report approved by Project Steering Committee
MS2	NIR sorting facility upgrade commissioned and operational	WP2	M20	Commissioning test report demonstrating ≥3,000 t/year throughput and ≥8-category classification accuracy
MS3	All 150 SCPs installed and operational across three cities	WP2	M24	Operational acceptance certificates signed by each city; IoT platform data confirming active sensor connectivity for all units
MS4	First annual monitoring report confirming collection rate >25%	WP6	M24	Annual monitoring report submitted to CINEA with audited tonnage data
MS5	10 Letters of Intent from EU replication	WP5	M36	Signed LoI documents

	cities secured			submitted as project deliverable
MS6	Final collection rate $\geq 45\%$ and 1,800 t/year fibre output achieved	WP3, WP6	M42	Final monitoring report and LCA with independently verified tonnage and recycled fibre delivery records

3.4 Deliverables

ID	Title	WP	Due	Type	Dissemination
D1.1	Baseline Textile Waste Characterisation Report (3 cities)	WP1	M6	Report	Public
D1.2	GIS Site Selection and Permitting Report	WP1	M8	Report	Public
D2.1	NIR Sorting Facility Upgrade Technical Report	WP2	M20	Technical report	Public
D2.2	SCP Installation and Commissioning Report	WP2	M24	Report	Restricted
D3.1	Fibre Offtake Agreements and Quality Assurance Protocol	WP3	M14	Other (contractual)	Restricted
D4.1	Citizen Awareness Campaign Materials (multilingual)	WP4	M10	Dissemination material	Public
D5.1	Municipal Textile Recovery Governance Model (MTRGM) - 6 languages	WP5	M38	Guidance document	Public
D5.2	Brussels Replication Workshop - Proceedings Report	WP5	M40	Report	Public
D6.1	Semi-annual Monitoring Reports (x8)	WP6	M42	Report	Restricted
D6.2	Final LCA Report (PEF methodology)	WP6	M42	Technical report	Public
D6.3	GIS File of Intervention Areas	WP6	M42	Data	Public
D7.1	Mid-term Progress Report	WP7	M21	Report	Restricted
D7.2	Final Report	WP7	M42	Report	Restricted

3.5 Resources and Budget Summary

Cost Category	Amount (EUR)
Personnel Costs	1350000
Subcontracting	450000
Travel & Subsistence	90000
Equipment	620000
Other Direct Costs	180000
Indirect Costs (25%)	310000
TOTAL	3000000

3.6 Risk Management

ID	Risk	Likelihood	Impact	Mitigation
R1	Citizen participation below target: households may not adopt separate textile collection at the rate assumed, resulting in collection volumes below the 45% target.	Medium	High	Deploy intensive multilingual behavioural change campaigns from month 3; install SCPs in high-footfall locations identified by GIS analysis; introduce gamification and incentive schemes (e.g. discount vouchers from local retailers); monitor monthly and adjust campaign strategy if interim targets are missed at month 12.
R2	NIR sorting throughput underperformance: the upgraded sorting line may not achieve 3,000 t/year due to fibre composition variability or mechanical reliability issues.	Medium	High	Engineering design phase includes throughput stress-testing; maintenance contract with equipment supplier includes guaranteed uptime SLA; contingency subcontracting agreement with a secondary sorting facility in northern Italy to absorb overflow.
R3	Weak demand for recycled secondary fibres: market conditions may deteriorate, making offtake agreements difficult to maintain at agreed volumes and prices.	Medium	Medium	Diversify offtake agreements across at least three recyclers operating in different fibre segments; develop price-risk mechanism (T3.2); engage fashion-brand buyers directly to stimulate demand; MTRGM includes guidance on demand-side market development.
R4	Municipal permitting delays: installation of	Low	Medium	Site selection and permitting process

	SCPs may be delayed by slow permitting processes in one or more cities.			begins in month 1 (T1.2); consortium partners (Municipality of Valencia and Hellenic Recycling Agency) are public authorities with direct permitting authority in their respective cities; contingency buffer of two months built into WP2 schedule.
R5	Partner coordination difficulties: geographical distance and different administrative cultures across three countries may impede timely decision-making.	Low	Medium	Quarterly in-person Steering Committee meetings; shared project management platform with real-time document sharing; designated project manager at each partner organisation; escalation procedure defined in Consortium Agreement.