lifeSMART

Support small Municipalities towARds energy Transition

Co-funded by the European Union

D4.1 Operational models to activate and maintain IMTS and foster energy transition of small municipalities

Task 4.1 – IMTS Consolidation

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Abstract

This document describes the operational models for activating and maintaining the functions provided on an experimental basis by the Inter-Municipal Technical Structures (IMTS) during the project. It also outlines strategies for continuing to promote the energy transition in the five target areas beyond the project's conclusion.

The first part defines the objectives of the IMTS within the LIFE-SMART project, recapping its main characteristics and briefly introducing the five pilot areas.

The second part analyses how the IMTSs were implemented in the target areas according to local needs and institutional frameworks. It highlights similarities and differences in their composition, roles, and functioning, while explaining how the assistance provided by the IMTSs was restructured to ensure sustainability after the project ends.

Building on the strengths and weaknesses of the LIFE-SMART experience, the third part outlines key recommendations for establishing technical structures that provide small municipalities with assistance in their energy transition.

The final part contains annexes providing detailed information on the IMTS implemented in the five pilot areas. This includes a questionnaire for each area, collected by task leader, describing local experiences and lessons learned, as well as documents in the local languages concerning the consolidation phase.

INTRODUCTION

Municipalities are key players in climate action, but, in particular small ones, face major barriers:

- **Limited technical staff**: Municipal Technical Departments are often composed by few human resources, some of them not entirely specialised in energy-related topics, sometimes employed by more than one Municipality and generally burdened with the usual bureaucracy. Even when supra-local bodies offer them assistance programmes and training actions, their ability to put the lessons learnt into practice is weak. This lack of knowledge and skills can be a substantial obstacle to taking effective action.
- **Lack of energy planning expertise**: local policymakers in small towns are often not aware of local potential/abilities in terms of energy saving and production, as well as best practices that could be considered close and replicable. Even when they are provided with a SEAP, they do not have a repository of well-designed proposals to present in case of funding opportunities arise. A clear and comprehensive vision is a key to guide the transition to clean energy. The lack of a clear vision can result in fragmented and uncoordinated actions.
- **Low citizen awareness**: in small towns, both citizens and local decision-makers often have inadequate information on energy issues. Furthermore, in the peripheral context, there is a certain tendency to consider the environmental consequences of high energy consumption as something that is generated elsewhere (particularly in big cities) and therefore cannot be solved locally. These are all common "cultural factors" that limit the initiative of private actors and community stakeholders in the field of renewable energies and energy modernisation. Mobilising initiatives at all levels of the community is essential for the success of the energy transition.
- **Difficulty in accessing funding and designing projects**: funding programmes are usually implemented through calls for proposals, but small municipalities are often unable to apply or develop competitive proposals. Their peripheral location, as well as their limited size, reduce the possibility of getting in touch with relevant market players and make it difficult for small municipalities to participate in significant investment projects. At the same time, when involved with ESCOs in renewable energy or energy modernisation plans, they are unable to negotiate the most favourable conditions.

In order to overcome these barriers Life SMART project tested in five regional clusters (in France, Greece, Italy, Portugal and Spain) an innovative solution: the creation of **Inter-Municipal Technical Structures, IMTSs**, to help municipalities to design, manage and implement energy transition actions together.

This document explains in details what an IMTS is, it analyses the experience of the IMTSs within Life SMART project and it gives some key recommendations for the constitution of similar structures to foster energy transition of small municipalities.

The annexes present a deeper analysis of the experience of each pilot area.

PART 1 – What is an IMTS and description of the pilots

1.1 What is an IMTS

Life SMART project proposed the IMTS as a tool to support small municipalities in overcoming the most common barriers they face in becoming active subjects in energy transition.

An IMTS does not represent a new legal entity, but a **cooperative technical structure**, activated in a specific target area and formalized on a voluntary base, which operates in support of the local administrations involved, accompanying them towards the energy transition process.

Its main function is the promotion of renewable energy, energy efficiency and more generally the energy transition of the territories and communities in the target area. Its main goal is to act as an agent of change and facilitator in the target areas where it is clear the need for skills, vision, resources and initiative in the transition to more sustainable energies.

The IMTS aims to represent not as a temporary solution, but a permanent, self-sustaining long-term entity.

It is composed by three key elements with different [but complementary] roles in successfully driving the transition to more sustainable energies in target areas:

IMTS Coordinator

The IMTS Coordinator is a representative of the partner organisation responsible for the activation of the IMTS. As the central figure in the structure, the Coordinator takes responsibility for the overall supervision of the IMTS and ensures effective coordination between all of the staff involved in the structure. The Coordinator plays a crucial role in ensuring that the project's objectives are met and that all the parties involved work in harmony in order to achieve these objectives. In addition, he facilitates ongoing communication and effective collaboration between the hired external experts, municipal technicians and other relevant stakeholders.

Technical External Experts hired

The hired External Experts are specialists with proved qualifications and competences in the key areas of sustainable energy. They work closely with municipal technicians and the IMTS Coordinator, providing specialised knowledge to guide the target areas in the transition to more sustainable energy. These experts play a key role in identifying energy solutions suited to the specific needs of each pilot area, ensuring that best practices and sustainability standards are applied. Their technical and/or scientific expertise is a valuable resource for the success of local energy initiatives.

Municipal Technicians from the Municipalities involved in the target areas

The Municipal Technicians belonging to the Municipalities involved in the target areas are responsible for the practical implementation of sustainable energy strategies in their communities. Selected taking into account their practical skills and specific knowledge of the target areas, they play a central role in coordinating and implementing local activities. They work closely with the hired external experts and the IMTS Coordinator, in order to ensure that the strategies are implemented effectively on the ground, monitoring progress and reporting regularly. Their ability to adapt and solve problems is very important to overcome obstacles encountered during the implementation of sustainable energy initiatives.

Each element plays a key role in the IMTS: the IMTS Coordinator provides overall supervision and coordination, the hired External Experts contribute with specialised knowledge and the Municipal Technicians lead the practical implementation of sustainable energy initiatives in the pilot areas.

1.2 Life SMART five pilot areas

Life SMART project implemented an IMTS in five pilot areas in France, Greece, Italy, Portugal and Spain.

In **France** the pilot area covered four rural municipalities in the Alpes Maritimes department in the southeaster France: **Biot, Saint-Martin-Vésubie, Saint-Vallier-de-Thiey, and Tende.**

FRANCE	4 municipalities	17.000 inhabitants	Area: 340 km^2
Characteristics of the area	The municipalites vary widely in size, population and geography. Ranging from Biot, a relatively dense and dynamic commune close to the Sophia Antipolis technology hub, to highly rural and mountainous territories such as Tende and Saint-Martin-Vésubie, located partly within the Mercantour National Park		
Stage of energy transition at the project start	The municipalities face unequal challenges and capacities, particularly in terms of administrative resources, technical expertise, and financial means, which directly influence their level of advancement in the energy transition. Some are already active in energy transition initiatives, like Saint-Vallier-de-Thiey, while others lack capacity or an overall strategy		
Composition of the IMTS and roles	The IMTS was composed by representatives of the municipalities and CCI-NCA staff, plus as external expert a technical engineering agency (Bureau d'études) directly hired by CCI-NCA on the basis of a professional intellectual services contract. The activation process was formally concluded with the official signature of a collaboration charter.		

The pilot area in **Greece** included two neighbouring municipalities of Central Macedonia: **Volvi and Aristotelis**.

GREECE	2 Municipalities 9 municipal units	40.300 permanent inhabitants, increased in summer	Area: 1.530 km^2
Characteristics of the area	Both municipalities are touristic destinations and have protected areas.		
Stage of energy transition at the project start	The two neighbouring municipalities have a shared strategic vision for climate neutrality: they have comparable energy profiles and the significant seasonal variation in energy demand due to tourism.		
Composition of the IMTS and roles	The IMTS was composed by the two Deputy Mayors responsible for energy-related portfolios and Anatoliki's staff, which initially appointed senior internal staff with extensive experience in energy planning in the role of the external expert. Later a mechanical engineer, hired on the basis of a Service Provider Agreement, joined the IMTS. The collaboration was defined by a Mutual Agreement signed by all parties.		

The **Italian** target area corresponded to the Valle Ustica Union and included 5 small municipalities, **Vicovaro, Mandela, Roccagiovine, Licenza and Percile**, in the North East of the metropolitan area of Rome.

ITALY	5 Municipalities, united in a Union of Municipalities	6.000 inhabitants	Area: 75 km²
Characteristics of the area	The territory is characterised by an ageing population and a depopulation phenomenon. The municipalities are in the protected area of the Lucretili Mountains, which sets a number of constraints for the use and management of the territory. They are also subject to various restrictions related to landscape systems and areas, for example in historic centres.		
Stage of energy transition at the project start	The Valle Ustica Union of municipalities adhered in 2015 to the Covenant of Mayors for Energy, and in 2022 to the new Covenant of Mayors for Climate and Energy. At the beginning of the project the Union was developing a joint SECAP.		
Composition of the IMTS and roles	The IMTS was composed of a representative from CMRC in the role of coordinator, the responsible of the Union technical department, and two engineers, hired by CMRC on the basis of a consultancy contract, with experience respectively on technical and administrative aspects. The functioning of the IMTS was regulated by a Memorandum of Understanding (MoU) between CMRC and the Union.		

The **Portuguese** pilot area of the LIFE-SMART Project was located in the Alto Alentejo region and included six small and medium-sized municipalities: **Alter do Chão, Avis, Castelo de Vide, Marvão, Monforte and Sousel**.

PORTUGAL	6 municipalities	27.150 inhabitants	Area: 2.087 km²
Characteristics of the area	This is a predominantly rural territory, characterised by low population density and geographic dispersion.		
Stage of energy transition at the project start	The municipalities have limited internal technical capacity, particularly in the fields of energy, climate and strategic planning. At the same time, the territory presents a high potential for the implementation of energy efficiency measures and renewable energy solutions, especially in public buildings.		
Composition of the IMTS and roles	The IMTS was composed by AREANATejo, as promoter, coordinator and entity responsible for technical articulation, the six pilot municipalities, represented by formally appointed technical focal points, External experts from the Polytechnic Institute of Portalegre, providing specialised technical support. The IMTS was formally activated through the signing of a Cooperation Protocol.		

The **Spanish** pilot area was the region of La Loma Occidental, located in the centre of the province of Jaén, within the region of Andalusia. It included eight municipalities: **Baeza, Begíjar, Canena, Ibros, Lupión, Rus, Torreblascopedro and Villatorres**.

SPAIN	8 municipalities	34.031 inhabitants	Area: 511 km²
Characteristics of the areas	This region occupies a strategic location between two larger cities (Úbeda and Linares) and is characterised by a rural environment and agricultural landscape.		
Stage of energy transition at the project start	All the municipalities of La Loma Occidental demonstrate a strong institutional commitment to environmental sustainability and the fight against climate change. All of these municipalities are signatories to the Covenant of Mayors, and Baeza is also a member of the Spanish Network of Cities for Climate. In the area of strategic planning, the municipalities of Baeza, Canena, Ibros, Rus, and Villatorres have developed in 2020 a Master Plan aimed at defining a common Smart Territory model, which incorporates specific actions for the improvement and protection of the environment.		
Composition of the IMTS and roles	The IMTS was composed by the staff of FAMP, as the coordinating entity, and of U-SPACE ESPAÑA S.L., as a support entity, two representatives from each of the town councils within La Loma Occidental, the		

	Autonomous Local Authority of El Mármol (included in the municipal district of Rus) and the Provincial Council of Jaén, plus in the role of technical external assistance, contracted by FAMP, EUROVÉRTICE CONSULTORES S.L. The IMTS was formally activated by signing a collaborative agreement between the above-mentioned entities.

Part 2 – Analysis of the experiences of IMTSs within Life SMART project

2.1 Activation and functioning of the IMTS

Although some form of technical assistance to local authorities was already part of the beneficiaries' ordinary mandates, the specific budget allocation within the SMART project allowed for the launch of a structured and continuous path, fostering the direct and active engagement of the selected municipalities.

In all cases, the collaboration between beneficiaries and municipalities was formalized through a Memorandum of Understanding (MoU). Despite these formal agreements did not involve financial burdens for the municipalities, they helped give substance and solidity to the commitments undertaken.

The availability of external experts working on in-depth analyses, as well as strategic and planning documents centered on local resources and heritage, fostered an increased interest from the municipalities. This provided them with the opportunity to see themselves—at least potentially—as effective agents of change. Nevertheless, participation from the technical staff of the municipalities was often intermittent. This was due, on one hand, to the understaffing and overburdening of technicians, who often struggled with commitments outside of ordinary administrative activities; on the other hand, an uneven commitment among municipal leaders (mayors and directors) was observed, aggravated in cases of political turnover.

As planned in the proposal, external experts were contracted by the beneficiaries. In 3 out of 5 cases, beneficiaries preferred to involve companies or research institutes (CCI NCA - Bureau d’études, AREANATEJO – Polytechnic Institute of Portalegre, FAMP- Eurovertice), while individual professionals were selected in only 2 cases (ANATOLIKI, CMRC). In all instances, the contractual formula concerned the provision of consultancy/intellectual services defined in alignment with the project workplan.

The fact that the professional relationship was between the expert and the beneficiaries likely meant that consultants interacted with the municipalities primarily through the mediation of the beneficiaries, who generally maintained a strong coordination (pivotal) role.

Overall, the IMTS collaborated actively in the project activities in which they were involved and contributed to the production of deliverables. Regarding the training program (T2.3), being already highly trained individuals, they often participated as trainers rather than as trainees. A high level of satisfaction was also recorded by the municipalities regarding the activities for building the knowledge base, planning, and programming (T3.1, T3.2, T3.3).

Preparation work for implementation (T3.4) was likely weaker than expected. Within the project timeframe, it was not possible in any case to publish calls for tenders to concretely start either energy retrofitting of public buildings or the construction of new renewable energy plants. This occurred despite the development — and in some cases, the detailed design — of valid projects suitable for the implementation phase.

Indeed, the weak point remains financial: small municipalities lack spending autonomy and face significant difficulties in accessing credit, sometimes due to previous debts or poor financial guarantees, otherwise to low attractiveness of small projects for private investors.

2.2 Consolidation of the IMTS

Regarding the consolidation of the IMTS, it was possible in all cases to put forward a strategy to maintain the information, training, and technical assistance functions piloted during the project. Although implemented in different forms and with varying resources, the service offer was reformulated by project beneficiaries to take into account the lessons learned during the project in terms of operational and financial feasibility.

In the case of beneficiaries already equipped with internal technical expertise (EL-ANATOLIKI, PT-AREANATEJO, FR-CCI-NCA), the energy transition support services were **internalized** by the beneficiary, in line with their institutional mandate. Assistance will continue to be provided to the municipalities involved in life-SMART using internal staff, leveraging existing collaborations and synergies with other ongoing multi-year projects and initiatives.

This commitment is established through non-onerous agreements for the parties. Only in the case of Anatoliki is a contribution from the municipalities required to cover operating expenses—a circumstance generally considered positive as evidence of the **active engagement** of municipal staff in the projects developed during the project.

In the cases of Spain and Italy (ES-FAMP/USPACE and IT-CMRC/CRAS), the continuation of the service for the benefit of target area municipalities was pursued through the involvement of other entities: the **Provincial Council of Jaén** and the **Andalusian Energy Agency** in the Spanish case (already involved in training and multilevel governance activities); and **AESS** in the Italian case, which CMRC—continuing existing collaborations—involved using its own funds to carry on activities in the territory.

Regarding the target groups identified for the IMTS follow-up activities, in all five cases, **municipalities** were identified as the primary recipients of technical assistance, specifically with the goal of completing the measures identified within the project and outlined in the strategies (T3.3). In these instances, technical assistance takes the form of support for design and the sourcing of necessary economic resources to carry out the works, for example, through the preparation of applications for national funding programs.

In the Italian pilot area—the least populated among those involved—the strategy centered on the development of a **Renewable Energy Community (REC)**. This highlighted the need to target all the municipalities of the metropolitan area, as well as **private citizens**, seen as potentially "more agile" than public bodies in mobilizing the investments in RES plants needed to increase the amount of shared energy, which forms the basis for public incentives.

In the French case, as a result of the institutional role of the beneficiary CCI-NCA, the most important target after local authorities is **businesses**. During the after-life project period, dedicated networking activities will be organized for them, along with training and awareness-raising events, enabling municipalities to connect with businesses, financing institutions and support organizations, which assist municipalities particularly in accessing finance.

In general, across all five pilot areas, **capacity building** and **awareness raising** activities are considered central elements of the SMART project follow-up.

Part 3 – Conclusions and key recommendations

On the basis of the experience of Life SMART project, the partners have identified various key recommendations for the activation and maintenance of Inter-Municipal Technical Structures and to foster energy transition of small municipalities.

3.1 Identification of the target area and activation of an IMTS:

- **Embed IMTS within existing supra-local organisations:** organisations that already have a role in supporting and working with municipalities are the most indicated actors to create and coordinate successfully an IMTS, to facilitate the interaction between municipalities and to know their needs and assets. It will also strengthen the institutional legitimacy of the structure.
- **Involve a sufficiently large number of municipalities**, so that the physical and economic effort can be directed towards a larger number of citizens and stakeholders, and so that common actions may have a sufficient critical mass to attract funding.
- **Maximise the geographical proximity of participating municipalities:** this facilitates more frequent in-person meetings, strengthen peer-to-peer exchanges, and create favourable conditions for the development of joint or collective actions among local authorities.
- **Identify a pilot area with more nascent energy initiatives,** so that the IMTS begins from a slightly more prepared and less basic foundation. The IMTS may involve municipalities at different levels of engagement in their energy transition, so that the more advanced ones may act as drivers for the entire pilot area.
- **Ensure an early alignment of political commitment:** to establish an informal political steering committee even before the signature of an Agreement further streamlines the transition from the planning phase to the operational functioning of the IMTS and ensures a stronger political commitment and a sense of ownership of the municipalities.
- **Formalise cooperation through clear agreements:** to establish clear roles, objectives and a precise timeline with different steps will facilitate the work of the IMTS.
- **Dedicate "Liaison Officers":** each municipality should appoint a specific staff member whose exclusive role (part-time) is to coordinate with the IMTS, reducing thus the friction caused by general bureaucracy.

3.2 Functioning of the IMTS

- **Invest early in internal and external capacity-building.** To ensure a detailed identification of municipalities' needs at an early stage of the project allows for better targeting of both content and audiences.

  In addition, the development of user-friendly, practical, and reusable materials and tools help ensure that training outcomes are sustained over time and that resources continue to be used beyond in-person sessions, thereby increasing the long-term impact of capacity-building actions.

- **Provide beneficiaries with structured opportunities to meet peers and exchange on concrete experiences**. These include other public actors facing similar issues, technical solution providers, and potential funding bodies. Such exchanges enable municipalities to draw inspiration, share lessons learned, and openly discuss implementation challenges, contributing to the identification and dissemination of best practices. Facilitating these encounters also supports networking, strengthens cooperation, and helps municipalities identify concrete solutions and resources to advance their energy transition projects.

- **Ensure that support for municipalities is always accompanied by engagement with citizens**, for example through the organization of energy literacy activities such as public meetings and workshops in schools. This facilitates consensus building, enabling municipalities to have an informed and aware community that can support their energy transition policies.

- **Maintain a strong beneficiary-centred and results-oriented approach** throughout the project lifecycle. Actions and outputs should be clearly tailored to municipalities' needs, and communication should consistently highlight concrete benefits and practical outcomes. This approach has proven effective in maximising participation, engagement, and overall impact.

- **Strengthen the relationship with supra-local (regional and national) institutions**, and establish a multilevel governance on the issue of energy transition, to ensure that these institutions are aware of the specific needs, challenges and opportunities that characterise small municipalities.

3.3 Consolidation of IMTS

- **Define sustainability mechanisms from the outset**. Having resources available to fund actions represent a boost to the IMTS's work. The sustainability of the structure and the funding of the identified actions is one of the most complicated challenges faced by the IMTS and the municipalities and solutions should be identified from the very beginning.

- **Design a mixed funding model**: Financial diversification from the beginning, combining municipal contributions, service fees, and regional grants, ensure the structure's financial autonomy and consolidation.

Part 4 – Annexes

Annex 1- Questionnaires from project partners

Annex 2 – Supporting documentation from project partners