

2020  
CIVITAS

DESTINATIONS



## Measure Evaluation Results

### ELB 5.2 - Sustainable ELBA Logistics Plan

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Cleaner and better transport in cities  
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# Executive Summary

The logistics optimisation plan for the overall island is of particular importance for an island like Elba, which bases its economy heavily on tourism. The main result of the optimisation of transport and distribution processes of goods on the island of Elba is the reduction in the circulation of commercial vehicles, with the consequent improvement of mobility on the island and reduction of emissions with significant environmental benefits.

The need to optimise the freight transport processes on Elba island is strongly felt by the transport operators, as a consequence of the additional costs (such as that of the ferry, and of time lost in waiting, boarding, and for the crossing) which weigh on the cost of deliveries and on the final cost of the products sold to consumers on the island.

The Sustainable Urban Logistics Plan (SULP) was created as part of the DESTINATIONS project and aimed to address these logistics issues. The main objectives of the plan were the identification of policies, strategies, and solutions/measures for the consolidation and optimised delivery of goods.

As a result, the outlined SULP included a detailed analysis of the various aspects and needs of the distribution of goods over the entire island and proposes solutions and new initiatives.

The plan was considered favourably by the two municipalities of Portoferraio and Rio, who contributed to the drafting of the plan. However, unfortunately, the need for all Elba municipalities to cope with the various needs caused by the COVID-19 emergency delayed the formal approval of the SULP by the other Elba municipalities. The plan is expected to be discussed and approved at the end of the year 2021 or 2022.

Therefore, despite the positive evaluation towards the plan from Portoferraio and Rio, it was not possible to carry out evaluation of the SULP with the other municipalities, even though the plan has been published on the Elba website.

By January 2021, almost all the actions included in the SULP were yet not implemented, as COVID-19 delayed the formal approval and, therefore, the implementation of the actions. The evaluation of the planned actions will be possible in the future after their implementation.

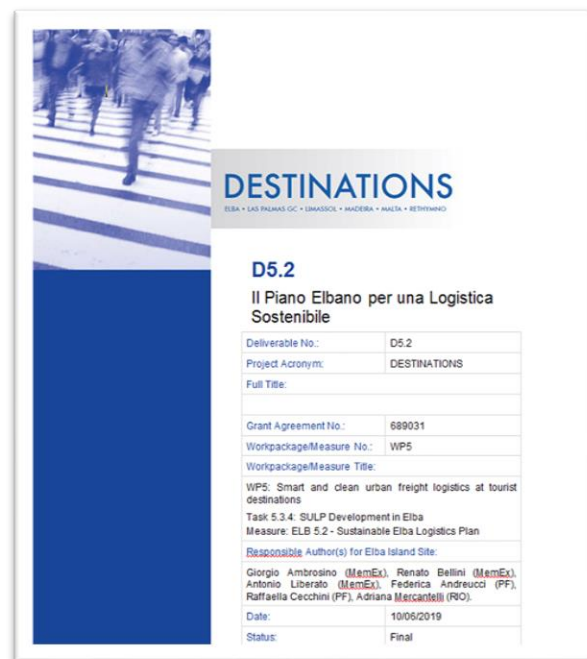


Figure 1: Elba SULP

## A Description

The Sulp for the island of Elba concerned the analysis of the distribution of goods on the island and the indications for rational and sustainable logistics. The drafted plan was based on the consolidated methodology developed by the ENCLOSE Project (IEE Program 2012-2014).

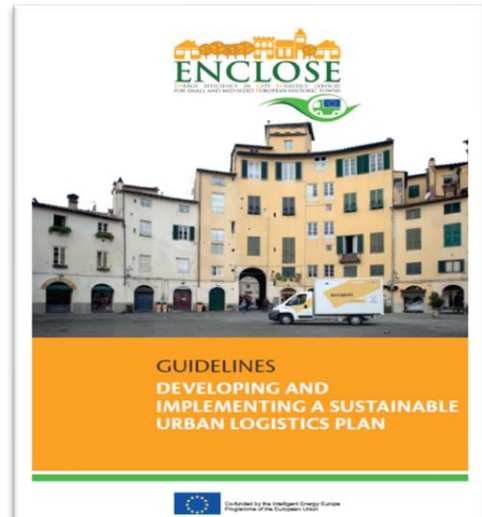
The Sulp objectives were the identification of policies, strategies, and solutions/measures for the consolidation and optimised delivery of goods, in order to obtain:

- The reduction of commercial vehicles that reach the island from the mainland
- The reduction of commercial vehicles circulating on the island's road network
- The overall improvement in efficiency of the logistics processes of transport and delivery of goods
- The mitigation of the consequent impacts in environmental, economic, and social terms
- And a better quality of life for residents and tourists

The Elba Sulp examined the existing situation of the distribution of goods on the island and from a series of indications and guidelines for more optimised and sustainable distribution of goods on the island.

The Sulp has been received favourably by the municipalities of Portoferraio and Rio and is also fully available to the other municipalities of Elba for consultation.

The evaluation of the validity of the many actions suggested in the plan will be possible only after their implementation.



**Figure 2:** Sulp methodology

### A1 Objectives and outputs

#### City policy level objectives

- Reduction in the number of commercial vehicles trips
- Improvement of the efficiency of freight delivery processes
- Reduction of freight transport environment impacts
- Improvement of overall Elba Island accessibility and quality for residents and tourists with the reduction of commercial vehicle congestion and pollution emissions

#### Specific measure objectives

- Sustainable Urban Logistic Plan (Sulp) indicating guidelines for the optimisation of a sustainable distribution of goods on Elba island

#### Outputs

- Sustainable Urban Logistic Plan (Sulp) for all the island completely drafted

## Supporting activities

A freight operator with a consolidation centre on the mainland and on the island collaborated with their ideas in drafting the plan.

## A2 Inter-relationship with other measures

This measure is linked with:

- **ELB 2.1 - Common ELBA SUMP for residents and tourists** - The strategic plan for the distribution of goods (SULP) is part of the strategic plan for mobility (SUMP) which deals with all vehicles traveling on the island's road network.
- **ELB 5.1 - Island freight logistics for tourist services** - The optimisation of some logistics services dedicated to tourists, as in the case of those dedicated to refuelling at Ho.Re.Ca. (Hotels, Restaurants, Cafes), are part of the strategy of optimised distribution of goods on the island treated by the SULP.
- **“LIFE ELBA” Project (LIFE 09 ENV/IT/000111) - "Integrated eco-friendly mobility services for people and goods in small islands"** - The project, in addition to the experimentation of public transport services with electric vehicles, also dealt with the distribution of "last mile" goods with optimisation of loads and with sustainable vehicles (FEV and PHEV).

## A3 Target groups and/or affected part of the city or region

The groups interested by this measure are transport operators, both resident on the island and coming from the mainland, and commercial operators (shops, bars, restaurants, etc.).

## A4 Stakeholders involvement

Stakeholder name	Activities description
Municipality of Portoferraio	Collaboration in the drafting of the SULP with the provision of statistical data regarding the population, businesses, tourist flows and the regulation of access and parking of commercial vehicles
Municipality of Rio	
Municipality of Porto Azzurro	
Municipality of Capoliveri	
Municipality of Marciana	
Municipality of Marciana Marina	
Municipality of Campo nell'Elba	
Confcommercio	Collaboration in the provision of data related to users' needs for the SULP elaboration
Confesercenti	Collaboration in the provision of data related to users' needs for the SULP elaboration

**Table 1:** Stakeholder involvement

## B Measure implementation

### B1 Situation before CIVITAS

Before DESTINATIONS, Elba had the Elba SEAP (Sustainable Energy Action Plan - 2013), in which some logistics measures, although only identified at a macro level, were defined. Each Municipality had its specific rules for goods delivery (i.e., time windows, rules for the commercial vehicles access, etc.).

During the LIFE project (2010-2014), some logistics services were tested such as optimised "last mile" distribution and the management of freight consolidation centres on land and on the island.

Despite these attempts to rationalise logistics on the island, the distribution of goods takes place according to the regulations of the various municipalities. There are different times for entering urban centres or purely tourist areas, different parking methods with or without provision for stalls dedicated to loading and unloading goods. There has always been a lack of uniformity of rules, such as the limiting of the circulation of the most polluting vehicles or vehicles with a low load percentage. The lack of common rules is also dictated by the characteristics of the seven municipalities on the island, which often have different needs and hardly wish to subject to common rules for the whole island.

### B2 Innovative aspects

**Organisational relationships.** In drafting the strategic plan, contacts were made with trade associations and with freight transport operators who already use consolidation centres to learn about their problems and design future development plans.

Technological solutions have been proposed for the control of parking stalls, in order to reduce the number and increase the quality of commercial vehicles in circulation. Reward policies have also been proposed in the presence of virtuous behaviours of logistics operators, and incentives for the use of new commercial vehicles with low emissions have been established. As part of this strategy, the plan suggested the promotion of incentive measures for the use of low / zero emission vehicles (e.g., Euro 6, Bi-modal, PHEV, and FEV) such as an extension of the access times, reserved goods stalls, reduction of any costs for the issue of permits, etc. for such vehicles.

### B3 Research and technology development

The development of the Sulp for Elba Island overall was based on the consolidated methodology developed by ENCLOSE Project (IEE Programme 2012-2014), coordinated by MemEx.

This methodology foresees a cooperation among the different actors and policy level involvement with a bottom-up approach based on user needs, operators/associations requirements, and cities objectives.

## B4 Actual implementation of the measure

The development of the Sulp was carried out through a dynamic process involving several stakeholders.

Firstly, an assessment of the main problems was carried out. Among the various issues, the environmental and energy issues due to the processes of the distribution of goods were strongly addressed. These issues were particularly addressed for the summer period, since the traffic generated by commercial vehicles was added to the already critical traffic level of private cars of tourists. The various problems were also related to the role of the stakeholders in this sector and their possible contribution was examined in a logistics rationalisation plan.

The actions necessary for achieving the objectives of the Sulp were described and examined. These included the need to establish a technical table between all the municipalities of the island to coordinate logistical interventions such as the harmonisation of access and parking regulations for commercial vehicles. These regulations, differentiated between summer and other seasons and also at the level of the different Elba municipalities, entail many difficulties for operators in the sector, especially for those who do not constantly operate on the island.

Finally, "last mile" goods distribution solutions were discussed in the Sulp, such as the sharing of resources between the various transport operators and the installation of pick-up points. While for the reduction of commercial vehicles from the continent, the possibility of installing freight consolidation centres both on land and on the island was examined and hoped to reduce the number of commercial vehicles circulating on the island.

As a result, the Sulp was completed in December 2017, was received favourably by the municipalities of Portoferraio and Rio, and published in full on the "Elba sharing" website. The strategic plan is at the complete disposal for consultation by all the communes of the island.

However, due to the COVID-19 pandemic and the need for all Elba municipalities to cope with the related emergency issues, this delayed the formal approval of the Sulp from the other Elba municipalities, which is foreseen to occur in 2021 or 2022.

By January 2021, most of the actions included in the Sulp had not yet been implemented, as COVID-19 delayed the formal approval and, therefore, the implementation of the actions. Only one additional freight consolidation centre was created in 2019 by a transport operator to add to the existing one. This realisation demonstrates the validity of the indications of the Sulp and contributes to the reduction of commercial vehicles circulating on the island. Other indications provided in the Sulp (such as standardisation of regulations, additional freight consolidation centres, actions to encourage the use of low or zero emission vehicles, etc.) will be implemented in future years. In sum, the plan listed the objectives to be achieved for the distribution of goods in an optimised and environmentally sustainable way. After a careful examination of the island's context, regarding the population, tourist flows, and mobility/traffic, the plan examined the logistical processes that took place on the island. In particular, the following was examined:

- The demand for transport and delivery of goods on the island
- Logistic processes and the offer of freight transport
- The policies for regulating goods flows on the island
- The infrastructure affected by logistics processes
- Port infrastructure and the road network



# C Impact evaluation

## C1 Evaluation approach

### Expected impacts and indicators

Impact category	Impact indicator	Unit of measure
Society	1- Create strong synergies among the involved actors with Authorities acceptance SULP level	%
Society	2- Improving the strategic and planning tools on short/medium/and long-term period with optimisation of the distribution of goods.	%
Transport System	3- Enhancing the effective and positive impacts of Elba SULP with commercial vehicle circulation reduction	N°

**Table 2:** Expected impact indicators

### Method of measurement

Impact indicator	Method*	Frequency			Target Group	Domain (demonstration area/city)
		Bef.	Dur.	Aft. <sup>(1)</sup>		
1- Level of SULP acceptance by the authorities regarding the creation of strong synergies between the actors involved	S	n.a.	n.a.	M49	Elba Municipality Authorities	Elba island
2-Improving the strategic and planning tools on short/ medium/and long-term period	S	n.a.	n.a.	M49	Survey among Authorities and freight transport operators	Elba island
3-Enhancing the effective and positive impacts of Elba SULP with commercial vehicle circulation reduction(1)	S – E	n.a.	n.a.	M71	Freight transport operators	Elba island

\*Data collection (DC), Estimation (E), Survey (S) - <sup>(1)</sup> After SULP measures implementation

**Table 3:** Method of measurement

### Detailed description of the indicator methodologies:

**1 - Level of SULP acceptance by the authorities regarding the creation of strong synergies between the actors involved** – The information was collected by Portoferraio and Rio staff through interviews carried out with the various municipal managers of the two municipalities in September 2020. The question was: “are you satisfied with synergies among the involved actors created by the SULP?”. The collected answers were evaluated for the following: Vs=Very satisfied, s=satisfied, n=not satisfied, NA not assessed.

**2 - Improving the strategic and planning tools on short/medium/and long-term period –**

The analysis was carried out both through evaluations by the municipal authorities of Rio and Portoferraio, and interviews with some of the major freight operators in Portoferraio. The question was: “Do you think that some indications of the Sulp such as freight consolidation centres or load optimization could be strategic indications in the medium / long term?”. The collected answers were evaluated for the following: Vs=Very satisfied, s=satisfied, n=not satisfied, NA not assessed.

**3 - Enhancing the effective and positive impacts of Elba Sulp with commercial vehicle circulation reduction –** This data was calculated by Portoferraio staff considering the registered number of commercial vehicles in Elba, plus the medium number of vehicles landing by ferries in one average day of July 2018.

This is the baseline estimation:

- 2,854 registered commercial vehicles in Elba in 2018. Estimated 1/3 (950) circulating in one day
- Number of commercial vehicles landing by ferries in July 2018 are 8,042. Medium landing in one day: 8,042/26 = 309
- Total circulating in a day = 950+309 = 1,259 vehicles

**The Business-as-Usual scenario**

Without a plan (Sulp) that pushes the different municipalities of the island to harmonise the distribution of goods within the entire territory, the different municipalities of the island would hardly find an agreement to apply common rules and measures to reduce the number of commercial vehicles, ensuring the timely supply of goods. BAU analysis is not applicable, as the Sulp deals with the analysis of the logistical situation of Elba, examining data that has not evolved over the years, except that they have changed mainly linked to the presence of tourists.

**C2 Measure results**

Impact category	Impact indicator	Unit of measure	Baseline	Ex-Ante	Ex-post
Society	1- Level of Sulp acceptance by the authorities regarding the creation of strong synergies between the actors involved	%	NA	60% Vs 10% s 30% n	90% Vs 10% s
Society	2- Improving the strategic and planning tools on short/medium/and long-term period	%	NA	80% Vs 10% s 10% n	90% Vs 10% s
Transport System	3- Enhancing the effective and positive impacts of Elba Sulp with commercial vehicle circulation reduction	Nº	1,260	1,130	n.a.

Vs=Very satisfied s=satisfied n=not satisfied NA not assessed

**Table 4:** Measure results



## C2.1 Society

**1 - Level of Sulp acceptance by the authorities regarding the creation of strong synergies between the actors involved** – The interviews carried out between the municipal authorities of Portoferraio and Rio confirmed that almost all agree (90%) that the Sulp is a tool that creates synergies between the various municipalities of Elba to solve the problems of goods distribution on the island. It could also be the basis for initiatives to be taken in agreement with sector operators.

**2 - Improving the strategic and planning tools on short/medium/and long-term period** – The plan was illustrated, in broad terms, to some of the main freight transport operators in Portoferraio. These agree with what emerged from the interviews carried out with the municipal authorities of Portoferraio and Rio regarding the Sulp. In their opinion, the Sulp represents a tool for improving strategic planning for the medium-term (such as load optimisation) and long-term strategies (such as freight consolidation centres) which are very useful for improving logistics on the island.

## C2.2 Transport System

**3 - Enhancing the effective and positive impacts of Elba Sulp with commercial vehicle circulation reduction** – This data can be obtained by analysing the average number of commercial vehicles landing on an average day in July 2022 when Sulp is assumed to be approved and many of its measures implemented. In the ex-ante estimate, a reduction of at least 10% compared to 2018 was assumed, which is in line with the benefits deriving from the construction of freight consolidation centres indicated in the Sulp.

## C3 Quantifiable targets

No	Target	Rating
1	Create strong synergies among the involved actors	***
2	Improves the strategic and planning tools on short/medium/and long-term period	***
3	Enhances the effectiveness and positive impacts of Elba Sump (Sulp as part of Sump)	NA
4	*Reduction of 10% commercial vehicle during one day in the peak season	NA
NA = Not Assessed    O = Not Achieved * = Substantially achieved (at least 50%)    ** = Achieved in full    *** = Exceeded		

\*New target, not in GA

**Table 5:** Assessment of quantifiable targets

Target 1 was Exceeded. The Sulp has been favourably evaluated by the municipal authorities of Portoferraio and Rio and will certainly contribute to creating synergies between the various municipalities to take common initiatives in the field of goods distribution. Following the results

of the interviews carried out between the municipal authorities of Portoferraio and Rio, it was possible to understand that 90% were very satisfied, with the other 10% being satisfied with the synergies among the involved actors created by the Sulp. The values achieved were superior to the originally defined targets (60% very satisfied, 30% satisfied and 10% not satisfied).

Target 2 was Exceeded. Most (90%) of the freight transport and distribution operators on the island surveyed declared their interest in the Sulp, indicating they were Very Satisfied. Although they were informed in broad terms of the plan, they confirmed the positive opinion of the municipal authorities for the development of logistics on the island in the medium- and long-term. Furthermore, they considered the Sulp a very important tool for also planning their activities in future years. The values achieved were slightly higher than the planned targets (80% very satisfied, 10% satisfied and 10% not satisfied).

Target 3 was Not Assessed. However, it is understood that the plan, once adopted by all the municipalities of Elba, will certainly create common strategies and synergies in the implementation of logistics actions on the island. The rationalisation of the distribution of goods envisaged in the Sulp will reduce the presence of commercial vehicles in line with the provisions of the Sump. Some indicators were taken into consideration which reflect the main results coming from the implementation of the Sulp.

Target 4 was Not Assessed, as the indicator is related with the implementation of actions that were not carried out during the project. The data will be found once most of the indications reported in the Sulp are implemented. In particular, the creation, by the major freight transport operators, of freight consolidation centres. These will prevent many transporters, often with limited loads, from going to the island, creating problems for mobility and emissions.

## C4 Up-scaling of results

Not applicable.

# D Process Evaluation Findings

The Sulp has been received favourably by the cities of Portoferraio and Rio, but has yet to be officially adopted by all the cities on the island.

Therefore, the evaluation from what is reported – the indications and strategic guidelines to obtain an optimised and sustainable distribution of goods on the island – will only be possible after the realisation of all or part of what is indicated.

## D1 Drivers

At a political level, there was considerable interest from the municipalities of Portoferraio and Rio in the implementation of a plan for the optimisation of logistics in Elba. The same interest has been shown by the transporters' trade associations for the purpose of equal access and parking regulations for commercial vehicles in the various municipalities of the island.

The experience gained from the LIFE project has helped to facilitate the drafting of the plan by "Integrated eco-friendly mobility services for people and goods in small islands", confirming those actions that had been successful in that project.

From the economic aspect, the increasing cost of ferry transport increasingly pushes transporters not to go to the island for small loads but to use the consolidation centres which already exist on the mainland and on the island to which they can entrust their cargo.

At the level of Sulp development methodology, a great help was being able to take advantage of the clear methodology developed by the ENCLOSE project.

## D2 Barriers

At a political level, it is often difficult to get all the municipalities on the island to agree to a common strategic plan.

At the commercial level, hauliers often come to the island to deliver small quantities of goods in order to keep their customers.

The COVID emergency will delay the analysis and implementation of even the simple actions indicated in the plan (for example the standardisation of the rules for access and parking in the cities of commercial vehicles).

## D3 Lessons Learned

The interviews carried out with freight transport operators are fundamental for the realisation of a realistic strategic plan which, in addition to indicating the guidelines for development, must also address the various practical problems that are encountered daily in the distribution of goods.

# E Evaluation Conclusion

The evaluation of the implementation of the Sulp is definitely positive as it addresses the fundamental lack of contributions for the development of a rational and optimised logistics plan on the island.

Processing the Sulp and its approval by the Elba municipalities will allow for the issue of the same regulations for the transport and distribution of goods on the island. This, with the same tourist presence, will bring an advantage for both transport operators (same rules for distribution in the various municipalities) and for citizens/tourists (lower number of vehicles with increased presence of electric vehicles).

## **F Additional information**

### **F1 Appraisal of evaluation approach**

The surveys for assessing the impacts of the Sulp, even if qualitative, are closely linked to the realisation of the indications reported in the study. These can be carried out in the medium- / long-term after the DESTINATIONS projects lifespan.

### **F2 Future activities relating to the measure**

The Sulp, presented to all the Elba municipalities, will be discussed and certainly approved by all the municipalities as guidelines for intelligent logistics. The different measures suggested can hopefully be carried out in the medium- / long-term.