



Project ELBA

Integrated Eco-friendly Mobility Services for People and Goods in Small Islands

air pollution

integrated mobility

sustainable mobility

PROJECT DESCRIPTION

The **ELBA** project represents a first experiment of sustainable transport of passengers and goods implemented on a small island. The initiative has addressed all the possible mobility-related problems of this tourism-oriented island with particular attention to the environmental and landscape protection of a territory that is, by its nature, delicate and exposed to risks.



OBJECTIVES

The main objectives of ELBA were the study, implementation, demonstration and evaluation of different advanced, **eco-compatible and integrated services for the transport of passengers and goods adapted to the specific features and territorial context of the Elba island**. The initiative was conceived on the basis of an in-depth analysis of needs, infrastructural and landscape features as well as related mobility demand; this latter resulted very variable depending on the tourist flows. The project area included the port of Piombino and its main ports of call on Elba (Portoferraio, Rio Marina and Cavo).

PROJECT PHASES

The ELBA project has developed an integrated and systemic approach for promoting on the field **sustainable and flexible mobility services**. A total of 28 actions, structured according to a complex work plan, were carried out.

The main actions were:

- creation of transport services for passengers (**residents and tourists**) in different areas of the island;
- identification of innovative **integrated logistics** systems for the transport of goods between Piombino and the island of Elba and for their distribution on the island's territory;
- development of technological solutions (ICT) to support the operation of the services developed within ELBA;
- use of eco-friendly vehicles - electric and bimodal (electric and Euro4 diesel) vans, electric and bimodal minibuses - for passengers and goods.

Main interventions realized in the field of sustainable and flexible mobility services:

- "**ELBA Spiagge**" and "**ELBA Est**" bus services, with eco-friendly bimodal and electric minibuses for the transport of



residents and tourists during summer. "ELBA Spiagge" provides connection between the beaches of the vast area of the North coast around Portoferraio, while "ELBA Est" connects the ports of the North-Eastern part of the island, Cavo and Rio Marina, with the centers of the hinterland. The two services, during the demonstration period of the project, were used by around **13.000** tourists and residents.

- Specific services for freight transport, among which:

- 1 "ELBA Freight" operating electric and bimodal ecological vans for the distribution of goods coming from the mainland. During the demonstration period about **9 thousand deliveries of products were performed for a total of over 250 tons of goods**. Prior to it the "ELBA Consolidamento" had been activated, a service for optimizing the loading of goods in the port of Piombino, which collaborated in the experimentation making available its logistic base. The consolidation of the load allowed a better grouping of the shipments between the mainland and the ports of Elba with a consequent reduction of the number of vehicles reaching the island;
- 2 "ELBA Laundry" dedicated to HO.RE.CA (hotels, restaurants, catering) sector operators developed in collaboration with the island's main industrial laundry. For this service bimodal ecological vehicles were used. During the experimentation, about **600 deliveries were made for a total of 56 tons of laundry delivered**;
- 3 "ELBA Electronics" for the internal distribution of electronic products and household appliances made in collaboration with the most important commercial group on the island. For this service bimodal ecological vans were used. During the demonstration period **135 rides were made for a total of 675 deliveries**;
- 4 "ELBA Bread" for the delivery of bread by the largest industrial oven on the island, using the latest generation of ecological diesel vehicles. During the demonstration around **2.800 deliveries were made for a total of over 120 tons of bread**.

In the frame of the project also innovative IC (Information & Communication) technologies and solutions have been developed for the integrated management of the new services tested within ELBA. Among these the "ELBA Shuttle" ICT platform for the organization of passenger transfer services to the beaches of Portoferraio and to the North-Eastern part of the island (Rio Marina - Ortano - Cavo); "[ELBA Freight](#)" ICT platform for the optimization of the freight transport services including also satellite monitoring of the vehicle fleets involved in the test. The two platforms were installed in the premises of the local public transport operators (ATL / CTT-Nord, Fulceri express courier, Nocentini logistics operator). A *mobile app* for smartphones and tablets has also been developed which is operable through QR-Quick Response Code (two-dimensional bar code used for storing information generally intended to be read via mobile devices) positioned at the bus stops to inform users on timetables and stops of the new transport services offered within the ELBA project. QRs were also placed in several hotels, at the ATL / CTT-Nord information points and different public places of interest.

PROJECT RESULTS

Evaluation of the results obtained within the experimentation of the new eco-sustainable ELBA services for passengers and goods has shown significant benefits in terms of **reducing environmental impacts and energy consumption**. These advantages derive from:

- rationalization of the freight transport and distribution,
- use of zero- or low-emission commercial vehicles,
- introduction of passenger transport services performed with hybrid and electric vehicles, that – owing to their high quality and attractiveness - led to reductions in the use of private cars, as well as in emissions and consumptions, especially during the periods of major tourist flows.

Assessments of the project results, carried out on an annual basis, showed a reduction in emissions of **94,3 tons of CO₂ eq.** The forecasts for 2020 realized within the project announce a reduction in emissions of **220,7 tons of CO₂ eq.** ELBA was also configured as a project with a **high replicability potential** in similar geographical and environmental contexts. Its services have also been tested on the **Greek island of Corfu** by the Corfu Port Authority, partner of the project, adapting them to the Greek context. Finally, the province of Livorno decided to fully implement the measures promoted by LIFE + ELBA in the [SEAP - Sustainable Energy Action Plan](#) of the Tuscan island, ensuring its adoption beyond the experimental period. In this territorial planning act, officially signed by all 8 mayors of the municipalities of Elba within the "Covenant of Mayors for Climate and Energy", a commitment was taken to make Elba the first "oil free" island of the Mediterranean through the adoption of territorial strategies to connote the island as a privileged destination for sustainable tourism with low environmental impact, to promote the energy qualification of the territory and to facilitate its economic development by stimulating the attraction of investments in eco-



friendly interventions.



Acronym

ELBA

Number of reference

LIFE 09 ENV IT 000111

Reference Programme

LIFE

Beneficiary Coordinator

Autorità Portuale di Piombino

Contacts

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EU contribution

781.814,00

Call Year

2009

Start Year

2010

End Year

2014

Beneficiary headquarters

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Italy

Region

Toscana

Description

L'intervento è stato realizzato tra l'isola d'Elba e il porto di Piombino.