



WASTE-LESS in Chianti Project

Waste Prevention and Reduction in the Chianti Territory

Compost

waste management

packaging

Waste sorting

WEEE

recovery of waste

organic waste

PROJECT DESCRIPTION

The **province of Florence**, with an average of 669 kg of per capita waste per year (2007 data), had one of the highest productions of waste in Europe. In the same period the EU-27 average was 546 kg/inhabitant. The **WASTE LESS IN CHIANTI** project aimed to contribute to the implementation of EU and national **waste prevention policies** through the implementation and monitoring of an **integrated program of waste reduction actions and optimization of the collection systems** combined with targeted information campaigns for citizens, as well as mobilization of local actors.

The target area was the territory of *Chianti Fiorentino*, a territory of about 400Km² which includes the municipalities of Barberino Val d'Elsa, Greve in Chianti, San Casciano Val di Pesa and Tavarnelle Val di Pesa.



OBJECTIVES

The project set a reduction target of 100 kg of waste/ inhabitant/ year (approximately 15% of the 2007 data) by 2020. The steps envisaged for the achievement of this goal and, ultimately, for the reduction of CO₂ in the Chianti, were:

- reduction of the final municipal waste sent to landfill or incineration by 15% in 5 years;
- reduction of the generated waste by 30 kg/ inhabitant/ year in 2 years (5% reduction during the implementation of the project by the end of 2013) and an additional 30 kg/ inhabitant/ year in 5 years, up to achieve a total reduction of 100 kg/ inhabitant /year by 2020.

To achieve the objectives, the project moved on two fronts. On the one hand fostered the creation of a new "waste culture" by promoting more recycling-oriented behaviors among citizens and, on the other, introduced modifications in the organization of the collection systems in line with the EU principle of waste management hierarchy which places at the top of the pyramid the prevention followed, in order, by reuse, recycling and disposal.

The interventions put in place fulfilled the project's expectations by proving to be a valid tool for promoting waste prevention and reduction.

PROJECT PHASES

To achieve a significant impact on the containment of local waste production, it was necessary to act on several levels, starting from **citizens' behavior**, through reconsideration of the **offered services**, up to the **waste collection system**. Therefore, the implemented actions were of different nature:



Waste prevention and reduction actions:

- Development of the **"Waste-less"** brand assignable to public and private entities (shops, accommodation facilities, bars and restaurants, offices, schools and festivals) who have undertaken to carry out a series of actions to reduce waste (e.g. reusable bags, less packaging, tap water instead of the bottle, etc.) and to distribute, at their places, the communication tools and messages developed within the project, obtaining in this manner a discount proportional to the effectiveness of the actions realized. Starting in November 2011, the brand has been gradually applied to all categories of operators in the pilot area;
- **promotion of tap water consumption** to reduce the use of plastic bottles through the installation of 13 public drinking fountains and tap water dispensers in all schools and at many of the structures belonging to the "Waste-less" brand, and through the distribution of waterbags to pupils;
- **promotion of home composting** and the use of compost through the supply of compost bins to citizens, discounts on the waste rate, periodic meetings and management of information stands with free distribution of quality compost;
- **promotion of washable nappies** with the distribution of free kits to families;
- **"empty the attic", periodic initiatives of free trade markets** of second-hand goods among citizens residing in the municipalities of the pilot area, organized in the town squares;
- establishment of a **reuse center** at the municipal waste collection facility of Canciulle, in the Municipality of San Casciano Val di Pesa;
- promotion of green public procurement in the municipalities;
- environmental education initiatives in the schools.

Optimization of the collection systems

- progressive extension of "door to door" collection systems for recyclable waste;
- introduction of new **collection systems with volumetric control** for the residual waste: the lid of the bins are equipped with a cup openable using a personalized electronic memory stick, which allows to reduce the residual waste not separately collected. Overall, the experimentation involved about 19 thousand inhabitants (almost 50% of the total population of the pilot area). The transfer of differentiated waste into the containers remained not controlled;
- revision of the regulations on waste assimilation.

Communication and actions aimed to involve the local players

- information meetings for local operators and citizens, organization of information stands at the weekly markets, seminars for the exchange of the best practices, communication campaigns.

PROJECT RESULTS

The project achieved in advance the expected results, scheduled for 2013, 2016 and 2020. Compared to 2007, year of reference for the evaluation of the achieved results, at the end of 2013 there was a reduction in municipal waste production of 17% equal to **121 kg/ inhabitant/ year**, much higher than the 100 kg target set for 2020. Taking as reference 2010, year of start of the project, the total waste production decreased by **9%**.

This also includes the results deriving from the new waste collection systems which were introduced in Greve in Chianti in May 2013, in San Casciano Val di Pesa in June 2013 and in Tavarnelle Val di Pesa in August 2013, and led to a significant increase in the share of separate collection in all municipalities.

The main results of the single actions were:

- **adherence to the "Waste-Less" brand** of 28 shops, 21 accommodation facilities, 20 bars and restaurants, 21 offices, 38 schools, 10 festivals;
- **publication of guidelines** for the implementation of the Action Plan for the prevention and reduction of waste in *Chianti Fiorentino*;
- publication of the **Financial scheme for precise pricing based on the transferred volumes** ;
- **Guidelines for the prevention and reduction of waste in events such as festivals and fairs**;
- **increase of the tap water consumption** by almost 3.5 million liters per year supplied by public drinking fountains in the



four municipalities involved in the project, corresponding to an estimate of **469 t/ year of plastic and glass waste avoided**);

- **50%** of the public calls in pilot municipalities becoming green;
- **home composting**, carried out by 16,7% of the population in Greve in Chianti, by 14,4% in San Casciano Val di Pesa, by 18,5% in Tavarnelle Val di Pesa, by 7,9% in Barberino Val d'Elsa, with a reduction of organic waste to approx. **600 t/ year**;
- **reuse markets** with 10 editions of the **"Empty the Attic"** initiative; participation of about 400 citizens of the pilot area to the events bringing their used goods; construction of the Reuse Center;
- **reusable nappies**, 58 washable kits distributed to families in 2013, which was estimated to equal to 136,9 t/ year of undifferentiated waste avoided;
- **environmental education initiatives** with the participation of 57 schools and around 1.300 pupils;

The effectiveness of the actions carried out was monitored by a system developed for **detection and evaluation of the achieved results**. The acquisition and re-processing of data was carried out through a specific **online portal** onto which registered users (project partners and brand members) uploaded their input data necessary for the calculation of the monitoring parameters, and public could view the results.



The project has been awarded the **Best LIFE Environment**.



Acronym

WASTE-LESS in Chianti

Number of reference

LIFE09 ENV/IT/000068

Reference Programme



LIFE

Beneficiary Coordinator

Provincia di Firenze (Città Metropolitana di Firenze)

Contacts

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EU contribution

504.671,00

Call Year

2009

Start Year

2010

End Year

2013

Beneficiary headquarters

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Region

Toscana

Description

Comuni di Barberino Val d'Elsa, Greve in Chianti, San Casciano Val di Pesa, Tavarnelle Val di Pesa; Provincia di Firenze; Regione Toscana