

# Bio-fuels and Electric Propulsion Creating Sustainable Transport in Tourism Resorts

BIOSIRE

Clean Fuels, Clean Vehicles, Cleaner Cities  
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## Project summary

BIOSIRE aims to establish a shift towards bio-fuels and electric propulsion for fleets, ships and special vehicles in tourist areas:



Croatia



Mallorca



Veneto Region



Austria



La Rochelle



Crete

# Objectives

Reach a shift towards bio-fuels and electric propulsion in tourist areas based on close co-operation among regional stakeholders

Disseminate and transfer outputs and lessons to other tourist areas



# BIOSIRE Consortium

## Coordinator:

CINESI Transport Consultants, Spain

## Project partners:

- Balearic Islands Government, Ministry for Transport & Planning, Spain
- Grupo Ecológico Natural SL, Spain
- Region of Crete - Regional Energy Agency of Crete, Greece
- FGM-AMOR, Austrian Mobility Research, Austria
- Energy Solutions North West London, United Kingdom
- Communauté d'Agglomération de La Rochelle, France
- NET Engineering S.p.A., Italy
- Regione del Veneto, Italy
- IFEU - Institute for Energy and Environmental Research Heidelberg, Germany
- University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture, Croatia
- Institute of Technology and Life Sciences, Poland



*BIOSIRE consortium partners*



*BIOSIRE partner countries*

# BIOSIRE regional approach

- Creation of local working groups with main actors
- Organisation of local workshops to involve all stakeholders
- Common process steps to establish changes:
  - Activating enabling strategies
  - Market transformation
  - Changing behaviour
- Process documented in regional reports available on the project website



# Local implementations: Mallorca and La Rochelle



## Mallorca

- Collection of used cooking oils from hotels and restaurants
- Campaigns with collection of used cooking oils at schools
- Promotion of biodiesel and electric vehicles in tourist related fleets



## La Rochelle

- Collecting used cooking oil from restaurants
- Demo of electric vessels
- Pure plant oil as fuel in public fleets
- Promotion of biofuels and electric propulsion
- Introduction of electric vehicles

# Local implementations: Austria and Crete



## Austria

- Supporting tourist areas in preparing, implementing and evaluating the introduction of electric vehicles and biofuels



## Crete

- Activating the local market for the collection of used cooking oils
- Pilot project with high blends of biodiesel
- Promote the take up of electric vehicles in tourist related companies

# Local implementations: Croatia and Veneto Region



## Dubrovnik, Mljet, Losinj (Croatia)

- Campaigning Biofuels and electric propulsion, Dubrovnik
- Biodiesel in tourist boats and other vehicles on the island of Losinj
- Introduction of electric propelled ferry boats and SUVs using biodiesel in the national park of Mijet



## Veneto Region

- Feasibility study of introducing biofuels, based on local crops and used cooking oils, for the water transport in Venice

# Regional SWOT analyses on biofuels

## - **Common Strengths:**

- Tourist regions have a high amount of Used Cooking Oils
- Interest to use biofuels as part of Sustainable Tourism Strategy

## - **Common Weaknesses:**

- Reluctance of fleet operators to change to biofuels

## - **Common Opportunities:**

- National strategies, EU 2020 objectives

## - **Common Threats:**

- Food for fuel discussion
- Unfavourable legal conditions

# Impacts in the BIOSIRE regions

- Evaluation currently underway. Evaluation report expected this summer
- Status of performance indicators:
  - Over 700.000 residents, tourists and fleet operators reached by campaigns
  - Over 2,200 restaurants and hotels participating in oil collection schemes
  - 850 vehicles shifted to alternative propulsion

# BIOSIRE workshops

- International workshops held (proceedings available [on BIOSIRE website](#)):
  - Used cooking oil collection, Heraklion, Sept 2009
  - Technical aspects of biofuels use, Zagreb, Feb 2010
  - Electric vehicles in tourist areas, Poznan, 5 October 2010
  - Sustainable transport as marketing element for tourist destinations, Venice, 23-24 February 2011
- National workshops:
  - Croatia, Zagreb, Spring 2010
  - Poland, beginning of 2011



# Project level outputs for practitioners in other regions

- Implementation handbook for starting with biodiesel and electric propulsion
- Show case directory on sustainable transport in tourist areas (linked to ELTIS)
- Free database for companies with products and services for biofuels and electric vehicles
- Workshop reports
- Evaluation report and Lessons & Recommendations

All tools are available on [www.biosire.eu](http://www.biosire.eu)

## Show case directory

**BIOSIRE** Creating Sustainable Transport In Tourism Regions

**Austria, Natural Park of Almenland pilot project for alternative propelled vehicels in tourism**

*Almenland (Austria)*



Within the so called "Almenland-Freizeitwelt" project, the region of Almenland in Styria consisting of 12 municipalities around the Teichalm and Sommeralm will implement ambitious projects within the next seven years.

**Background & Objectives**

Due to the geographic situation of the nature park sustainable parking management measures and mobility concepts are required to reduce the CO2 emissions in the region.

Additionally new leisure-time facilities will be offered (e.g. picnic areas). Furthermore marketing of activities during the winter season will be increased which will contribute to a higher publicity of the whole region.

**Implementation**

In cooperation between local farmers, tourism associations, local economy, municipalities and private households, measures to reduce CO2 are planned. The project plans to use electric vehicles for tourist applications e.g. at the Teichalm and Sommeralm.

**Conclusions**

As the project is still running no conclusions can be drawn yet.

## Example of product database



**Alké**  
**ATX200E AR**  
Electric vehicle for waste collection designed for use in cities and towns, sport centres, railway stations, airports, camping sites and tourist villages.  
Maximum speed: 30 km/h / 12 km/h (reduced mode) Range: 70 km  
Engine brake with energy recovery optional:  
automatic bin lifting system for 120 and 240 litre bins...  
[Product details...](#)

Delivery Area: worldwide  
Category: Electrical  
Type: Product  
28.09.2009

# Learn more about BIOSIRE experience during this event

- Thursday 16 June 9.00 hours:
  - Alternative propulsion for ships
  - Electromobility in BIOSIRE regions
  - Evaluation of BIOSIRE project
  
- Thursday 16 June 11.15 hours:
  - Crete: Activating local market of UCO-collection and biodiesel use
  - Mallorca: Biodiesel production and UCO collection at schools
  - Sustainable mobility as element of tourist promotion

