



# Refined transition strategy Austria

Status: Final Version  
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Date: 25.9.2009  
Filename: BIOSIRE\_D2.3\_FGM-AMOR\_Austria\_final.doc

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# 1. Introduction (1 page)

## 1.1. The BIOSIRE project

BIOSIRE aims to establish a shift towards bio-diesel and electric propulsion for fleets, ships and special vehicles in tourist areas in Spain, France, Greece, Italy, Croatia and Austria. The consortium is composed of regional authorities of tourist areas, energy agencies and research and consultancy organisations specialised in energy, agriculture and transport.

BIOSIRE local actions are directed at market transformation and changing the behaviour of fleet operators, tourists and residents, farmers and the potential suppliers of used cooking oils. These actions cover the full production and distribution chain.

During the first project year, on the regional level, the stakeholders have been identified and local working group meetings and a local workshop have been organised to prepare the market transformation.

This Refined Transition Strategy focuses on the country of Austria. A similar strategy is produced for the other five regions in the BIOSIRE project.

All deliverables of the BIOSIRE project and other information on the BIOSIRE project can be found at [www.biosire.eu](http://www.biosire.eu).

## 1.2. Goal of this document

The goal of this document is to refine the transition strategy towards cleaner transport in regions in Austria. The refinement of the transition strategy towards cleaner transport is based on the lessons learned during the first year of the BIOSIRE project.

There are two main sources for these lessons.

The **first source** is formed by the lessons from previous projects and implementations in tourist areas that have been studied in Workpackage 2 and are included in two deliverables:

D2.1 Database of Case Studies

D2.2 Draft Implementation Handbook

Within BIOSIRE the implementation of the transition towards biofuel and electric vehicles in tourist regions is divided into three phases:

3.1 Activating Enabling Strategies

3.2 Market Transformation

3.3 Change Behaviour

The **second source** of lessons is provided by the conclusions from the work on Activating Enabling Strategies in our region that was finalised in summer of 2009.

The lessons from the two sources are used to refine the planning for the BIOSIRE implementation for the period September 2009 – February 2011.

## 1.3. Structure of document

The original plan for the regional implementation is presented in chapter 2 of this document. This is the plan as it was formulated in the contract of the BIOSIRE project with the Intelligent Energy Europe Programme.

In chapter 3 of this document we present the lessons learned for our region from the first year of working in the BIOSIRE project.

Finally the lessons are used to prepare the refined strategy for the next two phases of the BIOSIRE project in chapter 4.

## 2. Initial regional plan

### 2.1. Demonstrator description

Austria has long been a leader in biofuel development in Europe, with the realisation of the first biodiesel production plant in the world in 1991. The public transport operator in Graz (Grazer Verkehrsbetriebe GVB) converted its entire municipal fleet of 130 busses to run with biodiesel.

Currently, Klima:aktiv funding from the Kommunalkredit Public Consulting GmbH is funding conversion of vehicles to biofuels or measures saving CO<sub>2</sub>. Using this programme as a stimulus, FGM-AMOR will open up a new focus for the Klima:aktiv programme searching for demonstrators in the non road sector and supporting them more on a technical level using knowledge acquired in the SUGRE project, which was ending in 2008. Through the experience from the past years, where FGM-AMOR was involved in the administrative Klima:aktiv process supporting companies asking for funding, the defined transition rate may be defined on the expense of investment in active marketing and dissemination of information which will be done in BIOSIRE.

The collection of used cooking oil and used fats is a unique selling proposition for the biodiesel production in Styria. By using waste oil as raw material for biofuel, discussions about land and water use are avoided, and thus this provides for maximum CO<sub>2</sub>-reduction. The system in Graz is up and running and may be used as reference for other regions, inviting them for site visits or providing a short promotional video.

A rate of 0.5 kg oil collected per year and person is achieved in some towns in Styria. In Graz the gastronomy contributes with 200,000 litres per year from 230 facilities. The estimated potential lies at 1.3 Mio litre waste oil per year from gastronomy and 0.5 Mio kg from households, but the feedstock has to be suited to the transesterification plant.

Local actions:

Because of the available national funding the demonstrators have not to be included here in the budget. FGM-AMOR will work in entire Austria setting up new demonstrators and will achieve the following results:

Fleet Type related to tourism	Envisaged vehicles converted in 3 years
Private bus companies	-
Public transport companies	20 vehicles
Fleets of tourist municipalities	10 vehicles

Car rental companies	10 car-sharing vehicles
Ferry and tourist boat operators	2 boats
Boat rental companies	
Others, tourist trains, etc. (taxis)	2 vehicles
Total	44

Other special vehicles are of particular interest in BIOSIRE and the Austrian demonstration will relate to ships but also to:

- off-road competition (motor bike, enduro,...)
- four wheeled vehicles supply for huts
- vehicles to be used in construction work
- agro forestal vehicles

Despite the fact that the final location of the demonstrator has not been determined, discussions are ongoing with various operators.

Attersee-Schiffahrt has requested to partake in the BIOSIRE activities by letter of intent. Attersee Schiffahrt is part of the transport operator Stern-Verkehr, who is running passenger (regular lines and tourism) and freight services covering roads, rail and lakes with around 300 employees in the transport sector. Attersee-Schiffahrt operates three vessels on one of Austria's largest lake. Stern-Verkehr is servicing 143 km of secondary rail network in upper Austria with in total 120 vehicles. Additionally 35 buses and 7 trucks are operated by Stern-Verkehr. Their participation regards the demonstration of boats on Attersee Lake propelled by biodiesel which is currently not planned any more as they fear about failure in their boat. Nevertheless, FGM-AMOR will keep them informed about the project results and will support Attersee-Schiffahrt in a potential future demonstration. The co-operation will comprise bilateral information flows allowing the project BIOSIRE to obtain additional input on the real world problems of these private operator transitions and, therefore, propose valid answers.

Attersee Schiffahrt will therefore act as valuator of the projects materials which should help fleet owners to transit to alternative fuels in the non road sector. In case they will start using bio-fuels the experiences will flow back into the project contributing to the BIOSIRE quality ensuring process. Attersee-Schiffahrt will also be presented as show case in the BIOSIRE dissemination allowing interested stakeholders to gather hands-on experience visiting the site and travelling with the biofuel powered vessel. Being part of the Stern-Verkehr operating also other non road vehicles contact to the staff responsible will be facilitated.

The actions in BIOSIRE will be complementary to other projects like STREAM and CIVITAS\_TRENDSETTER, because BIOSIRE has a specific focus on the use of biodiesel and electric propulsion on lakes (boats) and for off-road vehicles.

FGM-AMOR will use the case study of the Klima:Aktiv programme participants as the demonstrator in Austria, emphasising the role of special vehicles. Furthermore, Attersee Schifffahrt will participate in the project through FGM-AMOR providing their experiences on transition to bio-diesel with regards to special vehicles.

## 2.2. Regional objectives

Result indicators	Quantification of success
Price of alternative fuel compared to diesel	Price equal or lower than conventional diesel
Total number of fleet operators reached by promotion actions	Austria: 50
Total number of fleet operators that participated in workshops/events	Austria: 42
Total number of individual meetings with fleet operators	Austria: 20
Annual use of biodiesel in litres by tourist related fleets (shift from diesel to biodiesel)	Austria: 125.000
Number of fleet operators that shift (part of) their fuel-use to biodiesel/ or electric propulsion	Austria: + 7
Number of vehicles shifted to biodiesel	Austrian regions: +44
Annual reduction of MJ primary energy use	Austria: 4.000.000
Annual reduction of CO <sub>2</sub> emissions in kg	Austria: 225.000

## 3. Lessons from first year

### 3.1. Tools for implementation

Within workpackage 2 of the BIOSIRE project, a database of case studies and an Implementation Handbook have been prepared (both available on [www.biosire.eu](http://www.biosire.eu)). In this section we describe the lessons from these deliverables for the implementation in our region.

The information obtained from the previous deliverables produced in the BIOSIRE project (D2.1. best practices and D2.2. implementation handbook) influences the local work and provides valuable input for further steps in the project.

Some of the case studies (D2.1.) will be presented at the local workshop to provide information to regions interested in alternative and sustainable vehicles for tourism purposes.

The implementation handbook (D2.2.) provides basic facts and figures and an argumentation guideline (benefits and disadvantages) that will be used while talking to interested fleet operators and regions. The electric vehicles will be included in the product database on the website and can also – besides national/local offer – be used as good examples for the supply side.

### 3.2. Activating enabling strategies

During the first year of the BIOSIRE project FGM-AMOR has worked on creating the basis for the local implementation in Austria. This has been done through the development of networks, getting to know the needs of the target groups, providing information about the project and success stories and by the spreading of information about the benefits of biodiesel and electric vehicles. A detailed description of the outcomes from this project phase is included in a separate document called „Market Transformation Plan“. In the present document we provide summarized content from that larger document.

#### 3.2.1. Market Framework

This paragraph summarizes the conclusions from the market analysis of the existing market for alternative fuelled vehicles within the Demonstrator's region.

In Austria the production of biodiesel from used cooking oils has been set up already in the nineties, therefore the collection and distribution is established and seen as a common part of the normal waste disposal.

Biodiesel is mainly used for commercial fleets, in agriculture and in vehicles of private pioneers. Due to the European fuel-blending directive, biodiesel is needed to be added to fossil diesel, and thus biodiesel production has increased substantially within the last years.

Nevertheless an increasing market trend demanding electric vehicles can be observed. This might be due to the fact that the legally required emission standards (EURO 4 for passenger cars) cannot be reached when using B100, and additionally the usage of particle filters in vehicles does not allow the usage of B100<sup>1</sup>. Also financial incentives from the Austrian government show a specific interest in the support of electric vehicles, and utility providers think about setting up recharging stations. For example the zoo in Herberstein (province of Styria) has recently implemented an electric vehicle for the transport of visitors within the area.

### 3.2.2. Consultation with stakeholders

The consultation process with relevant stakeholders (e.g. tourism associations, municipalities, fleet operators, vehicle manufacturers) shows increasing interest in saving CO<sub>2</sub> in transport, and in the implementation of sustainable transport means in their regions. Currently or recently created local policies and energy strategies also contribute to this trend. Also concrete measures are often proposed – mostly starting with the implementation in the municipality fleet.

During the first Local Workshop (LWS) held in Graz, the following barriers have been identified as limiting factors for the implementation of alternative propulsion technology:

- Lack of cooperation between national initiatives
- Political courageousness for implementations is missing
- Legal framework conditions need to be improved (e.g. restricted zones for vehicles with combustion engines)
- No mass-production electric vehicle on the market available
- No overall concepts for a whole implementation strategy for a region are available
- Image of alternative fuels (e.g. electric vehicles) in the general public is bad
- Not enough (financial) support / incentives are available for the public users / manufacturers

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<sup>1</sup> UFOP <http://www.ufop.de/1137.php>

- Infrastructure (e.g. re-charging points) for implementation is not available

Potential successful measures to encourage greater demand:

- Awareness raising to increase / better the image of alternative propulsion
- More (financial) incentives/support for manufacturers / users
- More networking platforms / facilities are required
- Improvement of land space planning directives (e.g. building licenses for rural homes should be tightened)
- Innovative intermodal concepts to combine the usage of alternatively propelled vehicles and e.g. public transport.
- More lobbying necessary
- Development and testing of vehicles that are soon mass produced is necessary
- Trust building actions in technology and vehicles are required

### 3.2.3. Local policy options

The policy options identified during the consultation process in the various targeted regions range from the creation of financial incentive for local citizens to the implementation of sustainable mobility policies for a whole region.

Of course policies are seen as an important instrument to influence behaviour and attract potential new users.

## 4. Refined strategy

### 4.1. Market transformation

#### 4.1.1. Objectives of this phase

The Market Transformation phase (from September 2009 until February 2010) has the following objectives:

Further define and develop the local demonstration programme from a technical-economic-normative point of view in consideration of the entire value chain (tasks 3.2.1-3.2.5);

Conduct additional local consultation on the demonstration programme with regards to the articulation of the technical-economic aspects (3.2.6);

Promotion of the activities to the final users (including tourist operators as well as transient tourist population) (3.2.7); and

Development of the plans to change behaviour (3.2.8)

The activities to be conducted build upon the plans in 3.1.5 (Market Transformation Plan) and will result in the finalisation of the Plan for the changing behaviour.

#### 4.1.2. Detailed workplan in our region

This chapter provides an overview about the task to be carried out in Austria during the phase of market transformation.

As there is no dedicated demonstrator region for Austria and no budget is foreseen to support a single implementation / or a demonstrator region the tasks in the market transformation phase will be similar to the ones in the first phase.

In detail the following actions are planned for Austria:

- Local Working Group meetings will be done with municipalities requesting help in the field of sustainable and alternatively propelled transportation means and tourism. This will involve e.g. studies for regions about the CO<sub>2</sub> saving potential after retrofitting or changing to electric propulsion, information about available vehicles on the market etc.
- Local Workshops will be held to inform target groups about the topics of BIOSIRE – e.g. one topic could have a focus on concepts for passenger transportation in tourism regions or biodiesel in general.
- Promotion towards final users will be offered to regions as soon as a first implementation is achieved.

- A contribution to initialise behaviour changes will be achieved by suggesting different measures to target groups. This could be e.g. the installation of rental systems for citizens, tourists etc. or the invention of local role models.

## 4.2. Changing behaviour

### 4.2.1. Objectives of this phase

During this phase (March 2010 until February 2012) tangible “real life” behavioural changes are expected to be witnessed in the use of alternative fuels and clean vehicles.

The planned activities regard the launching of the demonstrator programme with the relevant distribution/recharge point network, special vehicle fleets using the different propulsion systems and participation of the final operators and users. Given that the IEE programme does not finance hardware investments for the conversion, the activities in this phase regard all the accompanying measures considered to be important to ensure successful operation of the local demonstrators.

As there is no specified region in Austria member of the BIOSIRE project the implementation of the measures in each region is not directly linked to the project and its time schedule. FGM-AMOR is anxious to support any region to implement the measures as soon as possible providing them with any know-how required and results from the BIOSIRE project.

### 4.2.2. Expected workplan in our region

Following up on the planned measures for the market transformation phase (chapter 4.1) and the special situation compared to other demonstrator regions, the actions for this phase will be similar to the ones performed in the previous phases.

If there are no major changes in the availability of the Austrian demonstrator the tasks would be nearly the same as in the previous phases. The difference will be that there will be more Local Workshops held (2).

### 4.3. Overview of time planning

	Market Transformation Phase																				
WP 3: Implementation	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
3.1 Activating Enabling Strategies	■	■	■																		
3.2 Market Transformation				■	■	■	■	■	■												
3.3 Changing Behaviour										■	■	■	■	■	■	■	■	■	■	■	■
Local consultation workshops (LWS)			x						x								x				
Local working group meetings				x				x					x				x				
Deliverables			2.3						3.1												3.2
Other outcomes			I										II								

I = Market transformation Plan (Month 12) (All regions); II = Local Information Campaigns (Month 22) (Four regions)

D2.3 Refined transition strategy (this document); D3.1 Roadmap for Changing Behaviour for first demonstrator group (Month 18)

D3.2 Planning for future broadcasting upscaling (Month 30)