



## Project Short Title

CO2NeutrAlp



Priority 1  
Competitiveness and  
Attractiveness



Priority 2  
Accessibility and  
Connectivity



Priority 3  
Environment and  
Risk Prevention

## Project Long Title

CO2 Neutral Transport for the Alpine Space

## Lead Partner

B.A.U.M. Consult GmbH München D

## Project Partners

- 1) Holding Graz - Kommunale Dienstleistungen GmbH A
- 2) FGM AMOR gemeinnützige Gesellschaft m.b.H. A
- 3) Rhônalpénergie-Environnement F
- 4) Helmholtz Zentrum München - Deutsches Forschungszentrum für Gesundheit und Umwelt (GmbH), Institut für Ökologische Chemie D
- 5) Provincia di Belluno, Settore Tecnico – Servizio Mobilità e Trasporti I
- 6) Provincia di Brescia, Assessorato Trasporti I
- 7) Università Bocconi, CERTeT - Centro di Economia Regionale, dei Trasporti e del Turismo I
- 8) Dolomiti Bus Spa I
- 9) Comune di Padova, Ufficio Mobilità Ciclabile I
- 10) Parco Nazionale Cinque Terre I
- 11) Comune di Torino - Settore Sostenibilità Ambientale, Settore Relazioni Internazionali I
- 12) Center za razvoj Litija, d.o.o. SI
- 13) Univerza v Mariboru, Fakulteta za Gradbeništvo SI
- 14) AllgäuNetz GmbH & Co. KG D

## Project Website

www.co2neutralalp.eu

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09.2008 - 01.2012

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3.369.851EUR

## ERDF in EUR

2.561.079 EUR

## Abstract

Within the CO2NeuTrAlp project, alternative transport technologies and mobility management measures were tested in 13 pilot projects, covering various fields of transport. The main aim of the project was to find solutions for sustainable transport according to local conditions and to prove that it is possible to maintain quality of life whilst preserving a healthy alpine environment.

Project activities have contributed to increase the use of public transport services instead of motorised individual transport in the pilot areas. Studies on "User acceptance" and "Sustainable Development Effects" have shown that congestion in the experimentation area has been reduced. The use of (local) renewable energy sources was fostered through the implementation of e-mobility and vehicles running on biofuels. In some of the pilot regions, unnecessary trips could be saved through awareness raising activities and new mobility concepts. In terms of costs and benefits, the project has shown that higher investments costs for new technologies and their infrastructure can be compensated by lower energy, maintenance and external costs.

The pilot projects as well as the accompanying research have shown that there are feasible solutions based on e.g. e-mobility for sustainable transport and that it is possible to implement them if the framework conditions are set right. These include clear political targets, taxation fostering investment in sustainable transport and setting technical standards.

## Relevance

Climate change is recognised as one of the major challenges of the 21st century. Nowadays 98% of road transport in the EU depends on fossil oil. The transport sector is increasingly contributing to global warming and the steady growth in mobility demand jeopardises policies to reduce carbon emissions from transport. Current efforts to promote a modal shift in passenger and goods transport to increase the proportion of environmentally friendly means of transport have not led to satisfying results.

Further to that, in the light of declining fossil fuels, energy security has become a major issue with regards to safeguarding a smooth functioning of our transport depended economy. Promoting the development of transport technologies based on renewable energies and energy efficiency means fostering the competitiveness and innovation of the Alpine Space.

Especially with respect to electric mobility, the lack of experience in managing such new vehicle technology presented a huge challenge to the project partners. Also, the reluctance of decision makers posed obstacles to the implementation of novel solutions. The transnational cooperation proved to be a strong asset in promoting political support for innovative systems of transport. Transnational networking among partners and observers were beneficial to all involved by making each achievement more visible, and by allowing each to learn from the experiences and know-how of other innovative actors.



## Key Achievements

- 1) Sustainability guidelines for renewable energies in the Alpine Space that were used as guidance throughout the implementation of the pilot projects. They include environmental, technical, economical, social and spatial development criteria.
- 2) User acceptance studies showing under which conditions innovative technologies and methodologies for transportation are accepted by their users. Corresponding guidelines provide support for potential followers to carry out such a study and propose a methodology for the analysis of results.
- 3) Framework analysis of the pilot regions assessing local conditions such as geography, climate, environment and pollution and the potential for renewable energy production so as to ensure the best possible implementation of the project in environmental and economical terms and to calculate the potential environmental effects of the projects.
- 4) 13 pilot projects implemented demonstrating good practice examples for sustainable transport solutions.
- 5) Assessment tool to carry out a local socio-economic and ecological assessment of the sustainable development effects generated at pilot project level in form of a questionnaire.
- 6) Participative planning tool for introducing alternative vehicle technologies and services at the local level consisting of a 8 step procedure, transferable to other areas.
- 7) Guidelines for decision makers and for transport professionals summarising the results of the project, including policy recommendations for followers.

## Lessons Learnt

Project partners faced considerable challenges during the project implementation phase, as from 2008 onwards they have been pioneering new trends in vehicle technology and transport management, where no ready-made solutions existed. Additionally, in several cases the reluctance of public decision making bodies posed significant obstacles to the implementation of novel solutions. The main lesson learned, therefore, was that changing mobility patterns and using new propulsion systems requires cooperation and needs open-minded local authorities, visionary leaders of transport and energy utility companies and motivated people demonstrating that behavioural change in mobility habits can improve quality of life.

Creating a favourable framework, using the right technology at the right place, adopting innovative solutions for financing sustainable mobility in order to overcome the obstacle of high investment costs, providing appropriate training for the maintenance of new technological solutions (such as electric vehicles) and involving relevant stakeholders by creating a local implementation network are the most important elements for an effective implementation of sustainable transport solutions.

The impact of any good measure will remain limited as long as no intensive communication process is established which helps to spread knowledge and increase the motivation of all potential partners. Therefore, raising awareness among local user groups is a key factor for success.

## Replication / Roll out

The potential for CO2 reductions of the pilot activities was found to be high, which calls for further action in this field. The replication of the activities in a larger context would contribute to increase the use of public transport services, save unnecessary trips, reduce congestion and decrease traffic problems and to foster the use of (local) renewable energy sources through the implementation of e-mobility and vehicles running on biofuels. This does not only benefit the environmental but also fosters independency from energy imports, job creation in (rural) regions, and competitiveness of local small scale enterprises.

In order to maximise the environmental, social and economical benefits of the activities, it is important to adapt a holistic approach to transport issues. Tackling all sectors of the transport system from private mobility over local fleets and city logistics to urban public transport as well as using the right technology for each transport sectors are crucial for a large scale implementation. Innovative financing models help to overcome the barrier of high investment costs for new technologies and infrastructure.

Policy makers shall create favourable framework conditions. Next to setting clear political targets, taxation fostering investments in sustainable transport can help to overcome financial barriers. Technical standards have to be defined at the European level to ease transnational application.

