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Intelligent energy for integrated urban and mobility planning

Intelligent Energy Europe

PROJECT MEETING snowball

Ludwigsburg, Germany

2008 November 27, 28 & 29

Final conference



SAN SEBASTIÁN- DONOSTIA

What has been done within Snowball project?

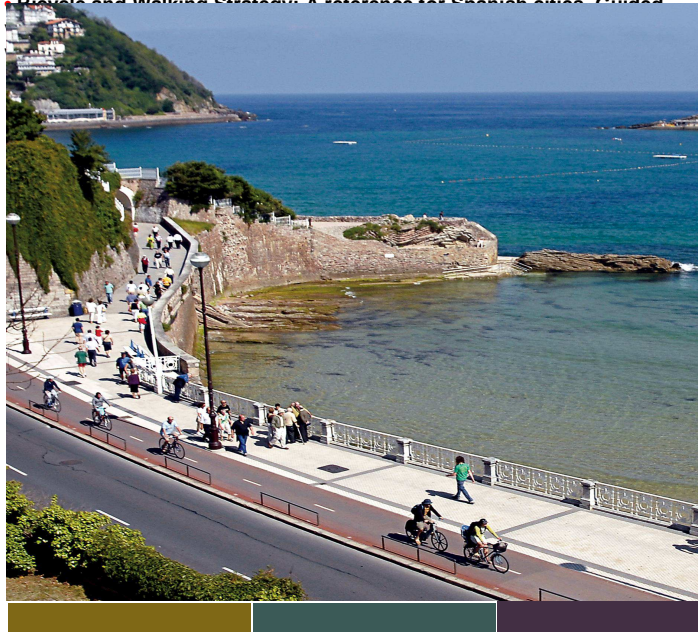
❖ A participative plan for the implementation of the **Vertical Transport Strategy** (VTS local project) which extends the Walking and Cycling Strategy from the central and flat area to the periphery, a hilly territory. There are 4 vertical links in Mundaiz, Larratxo, Eguía and San Roque.

❖ A comprehensive **Sustainable Mobility Plan** has been defined and approved, integrating all the projects and sustainable policies implemented all along the last 12 years and also approaching a wider scope of metropolitan mobility, origin of some of the remaining predominance of car use in urban area.

And some Snowball events organized in San Sebastian:

- Vertical Transport Strategy city participative workshop (01.04.2006)
- Guided visit, Train the Trainers 2 and national workshop (28, 29 30.09.2006)

• Bicycles and Walking Strategy. A reference for Spanish cities. Guided



Partner cities:



Partner organizations



Donostiako Udala
Ayuntamiento de San Sebastián



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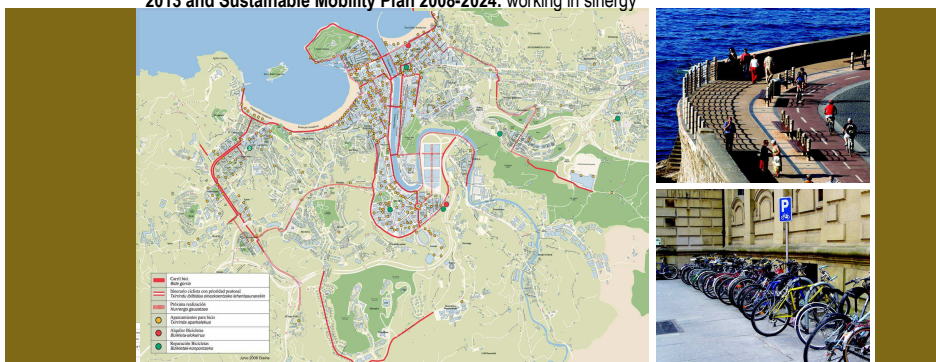
CYCLING AND WALKING

» A SUCCESSFUL STRATEGY

San Sebastian has been the first Spanish city to introduce cycling and walking as transport modes for urban trips. The implemented cycling and walking strategy combines infrastructure, networking, intermodality with Public Transport, calming traffic and pedestrian areas, improvement of urban public spaces, by-laws changes and citizen awareness campaigns. The Civic Commitment for the Mobility, the Bicycle Observatory and the Mobility Civic Board are tools for effective citizen participation in the process.

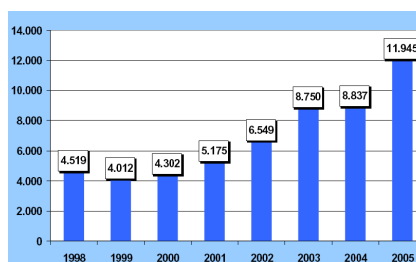
» A 13 YEAR PROCESS TOWARDS A MORE SUSTAINABLE MOBILITY

- 1995 | Urban Master Plan approval, whit measures for cycling and walking accessibility and better PT.
- 2001 | Plan enhancing bicycle use in city: Cycle paths network (main project La Concha_2002).
- 2002 | Donostia Camina: Plan and campaign on pedestrians facilities and public space alternatives.
- 2004 | Parking demand in central areas
- 2005 | Accessibility Master Plan and Acoustic City map: implementation of new national legislation.
- 2006 | Vertical Transport Strategy: soft modes extended to upper town via vertical links.
- 2005 | Road Safety Plan 2006-2009: addresses velocity thresholds in urban areas
- 2006 | Public Transport demand report
- 2007- 2008 | New Urban Master Plan, Agenda21 2nd phase, Climate Change Local Plan 2008-2013 and Sustainable Mobility Plan 2008-2024: working in sinergy



» RESULTS ACHIEVED 2008

- 28 km bikeways and 5.000 bike parkings
- Bicycle users tripled between 1999-2005
- 42.5% urban mobility by foot
- 142 trips/inh/year in PT
- 27,360.000 city bus users in 2007
- 100.000 m2 traffic-free streets and squares



Evolution of cyclists per day 1998-

2005

Evolution internal modal split

» CHALLENGES

- ¹⁹⁹⁹⁻²⁰⁰⁷ Impact of the metropolitanisation (1 of 4 urban journeys has an metropolitan origin in 2007)
- Inductive effect of new infrastructures
- Margin for growing motorisation and more intense car use
- Non competitive PT (train+bus) response to metropolitan demand
- The lack of a public road safety culture.

	1999	2003	2007
walking	47.3	48.2	42.5
Collective transport	19.4	17.3	25.5
car	26.6	28.0	23.4
others	6.7	6.4	8.5

Recent evolution of intensity of income

traffic	2003	2004	2005
Daily average journey intensity	95,372	98,501	100,456
Average journey intensity on working days	104,376	108,158	111,155



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ENERGY AND CLIMATE CHANGE

» ENERGY SAVING THROUGH "LUTR"

Traffic is the main cause of pollution in cities, both on environment and human health. In San Sebastian, the mobility model described above involves a series of environmental, social and financial impacts that need to be taken into account when approaching a "sustainable" mobility plan.

Particularly worrying is the evolution of CO2 emissions, with the growing amount generated by transport (currently 20% of the total). Transport generates a 36% of GHG emissions, so being the main polluter of diffuse sectors. The recent Plan Against Climate Change establishes measures for reducing use of energy and pollution in urban transport.

In San Sebastian the European Strategy LUTR has a perfect ground to be implemented, due to the coincidence in time of a new City Master Plan and a Mobility Plan, both with sustainability as a framework.

» EMISSIONS

The concentrations of pollutants recorded in the Donostia-San Sebastián measurement stations are largely linked to motor vehicle traffic. About a third of days throughout the year are not rated as good, especially due to the presence of particles of less than 10 microns (PM10) and, to a lesser degree, to ozone and nitrogen dioxide levels, according to 2007 Agenda 21 Local.

Mobility is also the primary source of noise, which affects more than a third (37.3%) of the population during the day and over two fifths (43.4%) during the night.

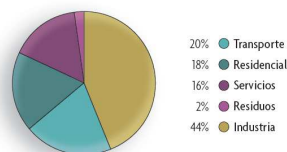


Gráfico 1: Reparto sectorial del total emisiones de CO₂
Fuente: Inventario de Emisiones de San Sebastián (2005)

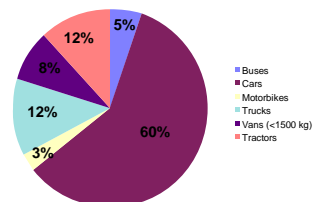
» PLAN AGAINST CLIMATE CHANGE

▪ Objectives in transport sector

- Improve the quality of pedestrian spaces
- Promote the use of bicycle as a usual transport mode
- Support the use of public and collective transport

▪ Other specific measures

- Awareness and education campaigns directed to target groups (tourists, scholars, workers, city officials...)
- Monitoring and direct reduction of GHGs in the running of Public Transport (biodiesel, hydrogen pilot project,...)



1995 CITY MASTERPLAN

▪ Transport objectives

- City bet for the public transport
- Polycentric development
- Limits to the use of private car in urban areas through parking policies

2006 NEW CITY MASTERPLAN

▪ To be approved

- Controlled growth: it gives importance to urban renewal without land over-use
- Proximity and mix of uses criteria for new developments.
- Reverted hierarchy for transport: soft modes, PT and private traffic
- Transformation of the first ring road in a civic street





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SUSTAINABLE MOBILITY PLAN (PMUS 2007)

A Sustainable Mobility Plan has been completed in 2007 by the City of San Sebastian. It is aimed to offer a diagnosis on the current accessibility and mobility situation, to foresee the impacts of planned future and to drive the change towards a more sustainable mobility, with a social and environmental better modal share.

» MAIN GOALS

- A. To structure the diverse policies and initiatives successfully implemented in San Sebastian and to get further in their development.**
- B. To address the real challenges of the sustainable mobility: impact of metropolitan journeys, mainly solved by car trips**
- C. To design a set of programs to be developed in the next years consolidating the experience of the last decade.**
- D. To be a second generation Sustainable Urban Mobility Plan, aimed to be a reference for similar Plans in other Spanish cities.**

» TASKS

- 1. Diagnosis:** A revision of the mobility strategies within the framework of the new Urban Master Plan, the new strategic urban projects, the public transport system and new road infrastructures to be built.
- 2. Project for a sustainable mobility from a metropolitan point of view,** addressing the dual trend of moderation of motorised traffic in the city and the explosion of car mobility in the surrounding area reflect the two contradictory faces of mobility.
- 3. Design of a set of programs** with capacity to transform the mobility in the main sectors: enhancement of PT, cycling and walking network, new road management system, parking plan, intermodality and awareness campaigns.

» RESULTS

- ✓ A medium and long term new Strategy for the next sixteen years, including new programs for the sectoral policies in course
- ✓ Solutions for the remaining problems: continuous increase of car, impact of new infrastructures.
- ✓ Analysis of metropolitan mobility and non urban trips.
- ✓ Environmental and energy evaluation of the whole set of programs



» CITIZEN INFORMATION AND PARTICIPATION

1. Sustainable mobility Plan includes a parallel participation process, through involvement of the existing participative structures.
2. It intends to address specific target groups (tourists, children, workers,...) within the European method of 'mobility management'.



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SUSTAINABLE MOBILITY PLAN (PMUS 2007)

The Donostia Mobility Plan has a double set of targets regarding internal mobility and mobility outside the municipality with the same root: The emphasis on internal journeys is placed on pedestrians and cyclists, while for external mobility the focus is on collective transport combined with non-motorised accesses to bus stops and stations.

» GENERAL TARGETS

A. Contribute towards a better quality of life for residents of Donostia-San Sebastian.

B. Contribute towards a noticeable reduction in the environmental impact of mobility.

C. Contribute towards reducing the dependence of the automobile in new developments

This blend of qualitative targets also reflected has its more quantitative, and therefore more committed, reflection in the Donostia Mobility Plan.

» QUANTITATIVE TARGETS

	2013	2024
Increase non-motorised journeys per person	5%	10%
Increase bicycle journeys	50%	100%
Adapt pedestrian routes, including accessibility measures for those with reduced mobility	45 kilometres	70 kilometres
Enlarge the coverage of public transport (population and employment in a radius of less than 150 metres)	97%	99%
Increase the relative weight of collective transport in motorised urban transport	35% of the total	50% of the total
Increase the relative weight of collective transport in the motorised regional mobility accessing the city.	28% of the total	35% of the total
Reduce the average journey times on public transport compared with the automobile: reduction in the Public Transport Time/Automobile Time ratio	10%	20%
Reduce the CO ² emissions of urban mobility	10%	25%
Increase road safety, reducing urban accidents	15%	30%
Reduce the consumption of energy based on automotive petrol.	10%	25%

» PROGRAMS TO BE DEVELOPED

- ✓ Pedestrian mobility (Donostia Camina + accessibility +VTS)
- ✓ Bicycle mobility
- ✓ Collective transport, with reserved metropolitan platforms and bus+rail interchanges
- ✓ Movement and parking of private motorised vehicles (network 80/50/30).
- ✓ Managing the demand for mobility



» CREATING A NEW CULTURE OF MOBILITY

The creation of a **Municipal Centre for Mobility Information and Management** will help to boost a cultural change as regards mobility, with the assistance of several Donostia Mobility Plan programmes with a social and educational focus.