

Corso di formazione “Valutare la rigenerazione urbana”



Quale rigenerazione ?



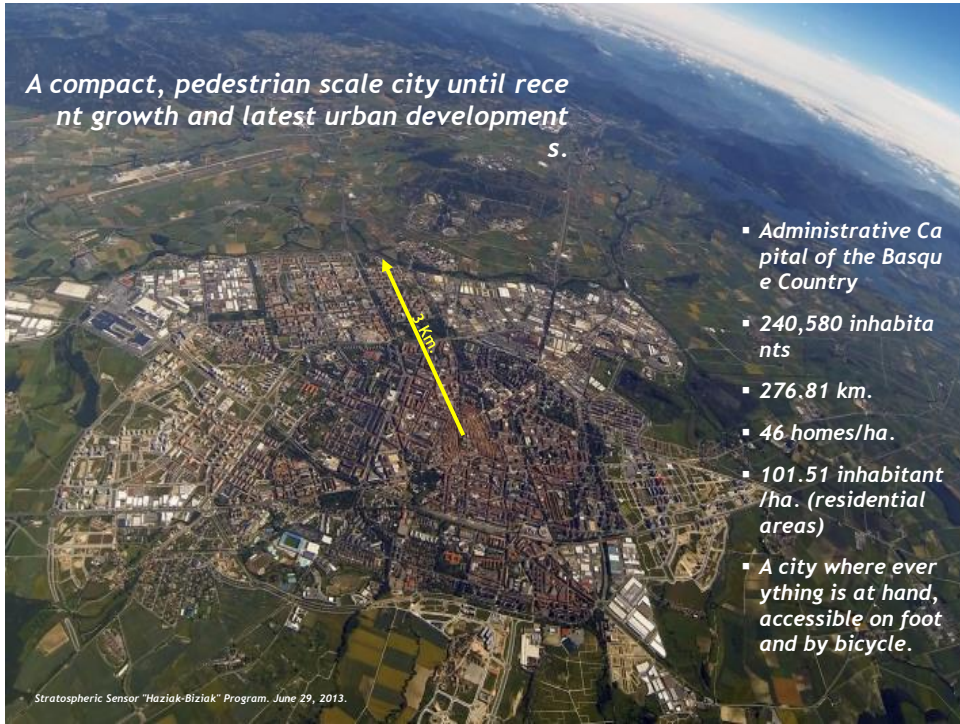
Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab



Il percorso

1980 – Crisi economica: il Sindaco Cuerda crea il CEA, Centro di Studi Ambientali

1990 - Il CEA lancia il Piano per realizzare un Piano del Sistema del verde periurbano, inteso come soluzione generale per risolvere il problema delle aree degradate tra la città e la campagna. In realtà la greenbelt è stata una strategia multifunzionale per introdurre la landscape ecology nelle scelte di Pianificazione.

1995 - Carta di Aalborg: Vitoria-Gasteiz è la prima città Spagnola che firma la Carta e la prima a definire l'Agenda 21 locale. Temi chiave: idrologia, inquinamento e rumore trattati in modo integrato

1995 – Prima proposta di Greenbelt, definita a partire dai sistemi naturali principali

1998 – la Greenbelt entra nelle strategie alla base della revisione del Piano Urbanistico Generale

1998 - 2005 – Costruzione della Greenbelt contemporaneamente al boom edilizio

2005 – da Vitoria parte l'idea della rete ecologica provinciale

2007 - Il conflitto tra urbanizzazione e natura induce il Sindaco Alfonso Alonso a prendere una decisione forte: "La parte sud della città sarà un grande parco naturale."

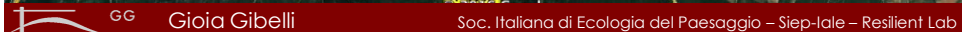
2012 - European Green Capital

Oggi - L'area sud (più di 15.000 ettari) sta per essere dichiarata ufficialmente Parco naturale dal Governo Basco.



Minacce e temi

La città ha uno dei redditi pro-capite più alti di Spagna, e la percentuale di disoccupati è più bassa della media nazionale.



Minacce e temi

Dal 1998 al 2009
 ettari edificati da 1800 a 3300
 nuove case 40.000
 Incremento demografico 8%



Figure 7.7 Fierce battles have been fought against urbanization processes during the most speculative decade in Spain's history. The greenbelt has been subjected to multiple pressures along its thirty-five-kilometer perimeter. (CEA).

GG Gioia Gibelli

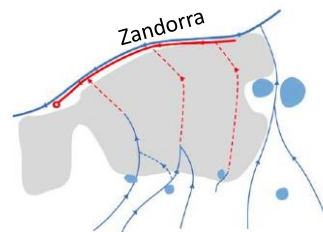
Minacce e temi

Acquiferi, fiumi e zone umide

Vitoria poggia su un acquifero di circa 450.000.000 di litri

Oggi usato quasi solo per agricoltura e irrigazione e contaminato da nitrati

Problemi: 5 rii tombinati e usati come fogne
 alluvioni urbane
 sovraccarico dei depuratori
 sfiori nello Zadorra



Salburua wetlands



Channelling of floodwaters from the river Zadorra



Balsas wetlands

River Zadorra



GG Gioia Gibelli

L'inizio – Gli studi del CEA

conclusioni:

1. Vitoria-Gasteiz ha un grande territorio di ottima qualità ecologica, di cui una buona parte pubblica, e ha una grande attitudine alla conservazione del paesaggio e della biodiversità: la prima proposta è di proteggere 1000 ettari come greenbelt.
2. Vitoria-Gasteiz è una città compatta il cui centro è ben curato, a differenza delle frange urbane degradate e con rischio ambientale elevato, specialmente nei contesti dei laghi e dei fiumi.
3. Una volta recuperati, i paesaggi di frangia, possono giocare un ruolo straordinario nei confronti delle reti ecologica a scala regionale. Possono anche definire un nuovo modello urbano con effetti positivi sulla qualità della vita di tutti i cittadini.



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

Caratteristiche e temi

La qualità urbana

Le green infrastructures urbane

La mobilità sostenibile



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

Caratteristiche e temi

Rivalutare l'Agricoltura e i paesaggi rurali

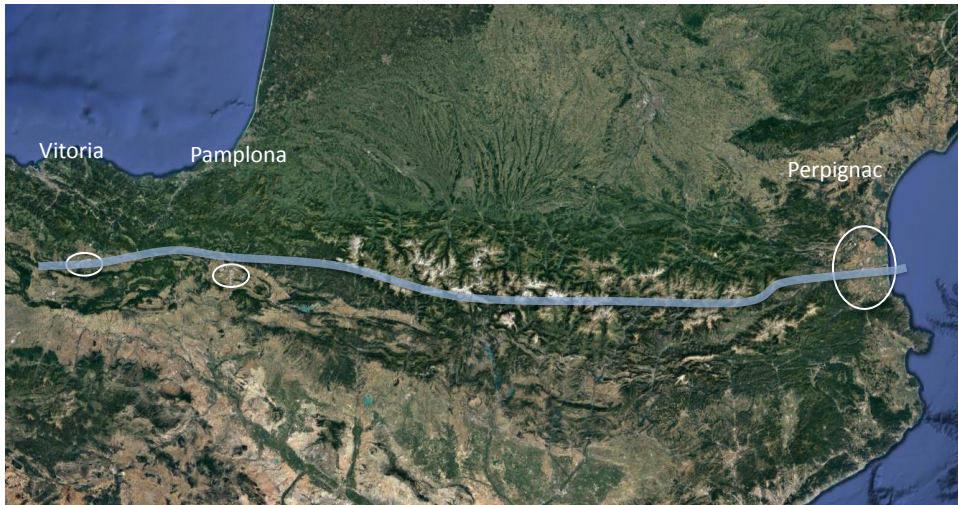


- educational activities
- ecological horticulture
- place for people over fiftyfive years old

in 1997 the Olarizu meadows and prairies were added to the greenbelt

Caratteristiche e temi

Il fiume principale, lo Zadorra collega la pianura di Alava con la valle del fiume Ebro e con il Mediterraneo



1995 - 35 Km di perimetro

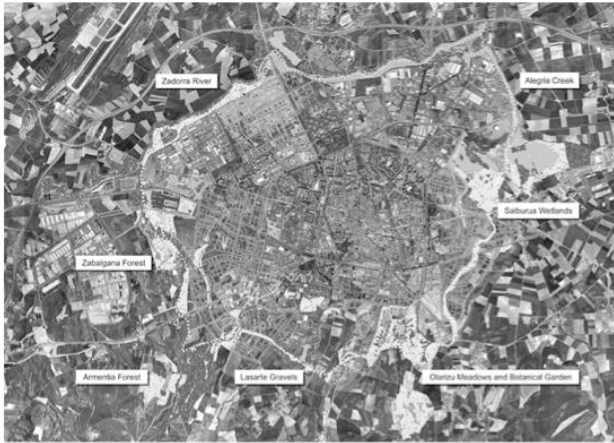


Figure 7.2 Greenbelt of Vitoria-Gasteiz. Credit: CEA.

The first proposal for the greenbelt in 1995 was defined by the main natural systems: a river that marks the boundary of the city to the north (**Zadorra**), a **mountain system to the south**, and a **drainage system with small rivers and streams to the east and west** of the city. Moreover, there were a number of small "island woods" (**Armentia and Zabalgana**) and a consolidated peri-urban park with its traditional procession and popular festivities (**Olarizu**). A few decades ago, a number of drained wetlands (**Sabarua**), before being occupied by farming land, had provided habitats for communities of plants and animals, and played a regulatory role by helping to control flooding, so there was considerable support for their recovery. Despite the fact that many of these spaces were degraded, there was huge potential for their recovery.



GG

Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

2013: la CE pubblica la Strategia Europea delle Infrastrutture Verdi (*Green Infrastructure-Enhancing Europe's Natural Capital*, Commissione Europea, Bruxelles, 6.5.2013) con l'obiettivo di spingere lo sviluppo delle Infrastrutture Verdi in tutti gli ambiti territoriali, nazionali, regionali e locali) enfatizzandone l'importanza per l'organizzazione del territorio

Vitoria-Gasteiz, : un SISTEMA DE INFRAESTRUCTURA VERDE URBANA, basado en funciones ecosistémicas, que permitan al sistema urbano evolucionar hacia mayores cotas de sostenibilidad



GG

Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab



Strategie

1.3 GREEN INFRASTRUCTURE FUNCTIONS AND BENEFITS

The green infrastructure helps us to maintain the valuable services provided by ecosystems.



Retaining and filtering rainwater, Portland



Network of bicycle lanes and public transport, Vitoria-Gasteiz



Salburua Ramsar Wetland, Vitoria-Gasteiz



Urban paths and wooded walkways, Vitoria-Gasteiz



Separation of floodwaters from the river Zadora, Vitoria-Gasteiz



Floodwater channels in the river Zadora, multifunction spaces, Vitoria-Gasteiz



Rain garden, Wissahickon Charter School, Philadelphia

ADAPTING TO CLIMATE CHANGE

1. Flood prevention, regulating rainwater run-off.
2. Reducing risks deriving from flooding, floodwater regulation.
3. Increasing aquifer recharge water.
4. Thermal regulation and reduction of urban heat islands.
5. Improving ecological permeability - movement and refuge of species - in the case of extreme weather conditions by creating ecological networks.

MITIGATING CLIMATE CHANGE

6. Increasing carbon sequestration (sink effect).
7. Reducing carbon emissions from motor vehicles by increasing public transport infrastructures and sustainable mobility (pathways, bicycle lanes, etc.).
8. Generating renewable energy sources ("green buildings").
9. Reducing energy consumption (climatic heating by means of urban forest, green facades, bioclimatic construction).

IMPROVING BIODIVERSITY

10. Maintenance, protection and enhancement of natural habitats, wildlife and biodiversity.
11. Increasing biocapacity.

IMPROVING ENVIRONMENTAL QUALITY

12. Improving air quality.
13. Improving water quality (water treatment).
14. Reducing noise levels.
15. Improving and maintaining agricultural land values (increasing soil fertility).
16. Controlling soil erosion.

IMPROVING HEALTH AND WELL-BEING

17. Improving aesthetic values.
18. Increasing resources for sports and leisure pursuits.
19. Increasing resources for contemplation and spiritual well-being.
20. Generating resources for training and education.
21. Generating community resources (involving citizens).
22. Increasing the feeling of belonging and identity.
23. Urban agriculture and locally produced food.

Strategie

	Woods	Meadows and uncultivated land	Wetland Areas	River connectors: rivers and streams	Hedgerows and meadows	Agricultural areas	Greenways, eco-ducts and eco-bridges	Peri-urban parks	Urban forest	Public parks and green areas	Private green areas and inner courtyards	Green sport areas	Flood ponds and lakes	Rivers, streams and urban drainage systems	Community gardens and vegetable plots	Cemeteries	Green roofs, walls and facades	Public transport infrastructure	Pedestrian and cycle paths	Open squares and public areas	Green buildings
1	***	*	***	***	***			*	*	*	*	*	***	***							
2			***	***				*	*	*	*	*	***	***							
3	***	*	***	***	***	*		*	*	*	*	*	***	***							
4	*				*			*	***	*	*	*			*	*	*	*	*	*	
5			***	***		*		*	*	*	*	*			*	*	*	*	*	*	
6	***	*	*	*	***	*		***	***	***	*	*			*	*	*	*	*	*	
7																		***	***		
8																					***
9									*	*	*	*					*	*	*	*	
10	***	*	***	***	***	*		***	*	*	*	*	*	*	*	*	*	*	*	*	*
11	***	***	***	***	***	*		***	*	*	*	*	*	*	*	*	*	*	*	*	*
12	***	*	*	*	*	*		***	***	***	***	*	*	*	*	*	*	*	*	*	*
13	***	*	***	***	*	*		*	*	*	*	*	***	***	*	*	*	*	*	*	*
14	***	*	*	*	*	*		***	***	***	*	*	*	*	*	*	*	*	*	*	*
15	***	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	***	*	*	*	***	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	***	*	***	***	***	*		***	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*					*		***	***	***	*	*	*	*	*	*	*	*	*	*	*
19	***	*	***	***	***	*		***	*	*	*	*	*	*	*	*	*	*	*	*	*
20	***	*	***	***	***	*		***	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*					*		***	*	*	*	*	*	*	*	*	*	*	*	*	*
22	***	***	***	***	***	***		***	*	*	*	*	*	*	*	*	*	*	*	*	*
23						***									***	*	*	*	*	*	*

CEA

CONTRIBUTION TO THE FUNCTION *** HIGH * AVERAGE

Strategie

1.4 GREEN INFRASTRUCTURE PLANNING AT DIFFERENT SPATIAL SCALES

Structuring a Green Infrastructure system or network requires regional planning and management strategies at different spatial scales.

INTERNATIONAL SCALE

A number of transnational strategies work in order to recover ecological connectivity processes through the definition of large ecological corridors.

At a European level, the Pan-European Ecological Network attempts to advance towards spatial ecological connectivity at different scales and in different ambits (not only terrestrial) in regional and sector planning policies.



Large Biodiversity Corridors Planning Strategies
European Natura 2000 Network
Large mountain ranges
Pan-European Ecological Network

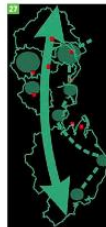


"Basque Threshold" in the Great Mountain Corridor of the Cantabria - Pyrenees - French Massif Central - Western Alps, Mountain Corridors Initiative of IUCN.

REGIONAL SCALE

At a regional scale, the network of protected spaces does not guarantee the necessary ecological connectivity of the region as a whole. For this reason, the landscape scale is advocated more and more for the design of functional ecological networks.

At this scale, the Green infrastructure is conceived as a regional system that includes spaces with environmental, landscape and heritage values, as well as the necessary connections to maintain the basic ecological processes of the region.



Natural Protected Spaces Network
Connecting ecological corridors
Protected Landscapes
Major routes providing access to natural spaces
Networks of Greenways

Functional ecological network around the Upland Ring, Bioregion of Central Alava.

The greenbelt is indeed a physical reality today, but it is also “a way of doing things.” This fragile peri-urban system and the city are still two different realities that do indeed coexist and should be directly integrated.

the principles that inspired the strategy of the greenbelt: landscape ecology, social integration, balanced land use distribution, and, above all, full awareness and respect for our region, the rural landscape where we all come from and which we all need, today perhaps more than ever.

Infrastruttura verde urbana

Mobilità sostenibile

Riequilibrio idrologico e rete ecologica

Agricoltura e paesaggio rurale



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

Infrastruttura verde urbana



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

La Greenbelt: dalla scala urbana alla scala regionale

Primi passi

The first steps have been taken in Vitoria-Gasteiz by extending the marketplaces of the greenbelt to community gardens in different neighborhoods,

P I
A O
R N
T E
E
C
I
P
A
Z



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

La Greenbelt: dalla scala urbana alla scala regionale

Primi passi : mobilità sostenibile

Pedonalizzazione e ciclabilità.
2003 il Piano Urbano per la pedonalizzazione

P I
A O
R N
T E
E
C
I
P
A
Z



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab



Market Day, 1955
Source: Municipal Archives of Vitoria-Gasteiz



A commitment by tradition

Celebration of "Day of Pedal", 1959
Source: Municipal Archives of Vitoria-Gasteiz

A commitment by tradition...



Old bicycle lane Portal de Gamarra (1964)
ARQUE. Municipal Archives of Vitoria-Gasteiz.



Dato Street, 1966
Source: Municipal Archives of Vitoria-Gasteiz



Infrastruttura verde urbana



GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

RENOVATION AND REFURBISHMENT OF BUILDINGS	WATER MANAGEMENT	URBAN GREEN DESIGN AND MANAGEMENT	RENOVATION OF THE PUBLIC SPACE	MOBILITY IN THE CITY
 <p>Planted facade which favours heat installation, raises temperatures due to evapotranspiration, filters and retains contaminants and generates an attractive visual element. Musée du quai Branly, Paris.</p>	 <p>Drainage of run-off water facilitating the infiltration of rainwater. Glencoe School, Dwr Cymru Welsh Water, Cardiff.</p>	 <p>Integration of art, culture and education that facilitates a greater knowledge of and relationship with nature. National Gallery, London.</p>	 <p>Improving biodiversity and biocapacity in public green spaces. Cemetery on Boston Common.</p>	 <p>Converting railway infrastructures into green corridors associated with pedestrian mobility. Promenade Planteé, Paris.</p>
 <p>Solar and wind power microgeneration systems on green roofs. United Kingdom.</p>	 <p>Rainwater reception systems. Portland.</p>	 <p>Vertical gardens that increase the green space surface area and the biotic index of the soil. London.</p>	 <p>Increasing spaces for play, learning and discovery through landscape and contact with nature. School courtyard in Philadelphia.</p>	 <p>Placing underground of metropolitan railway infrastructures and the generation of green corridors and community spaces on the surface, favouring social cohesion and identity and increasing quality of life. South West Corridor, Boston.</p>
 <p>Design of community green spaces for the production of local food on the roofs of buildings, favour leisure and education activities and promote social cohesion. Eagle Street Rooftop Farm, Brooklyn.</p>	 <p>Rain gardens act as run-off water filters, reducing the contaminants that enter the sewage systems.</p>	 <p>Integration of playing and biodiversity spaces in small spaces. Gardens and vertical walls in Bordeaux.</p>	 <p>Creation of green areas in stations and intermodal public transport spaces. Planting at the main train station in central Boston.</p>	

GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

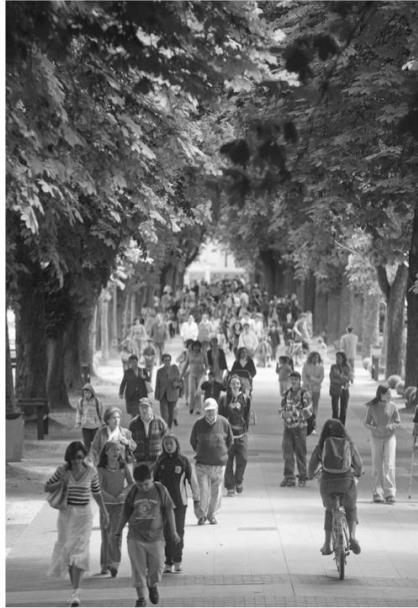


Figure 7.5 The success of the Paseo de la Senda in connecting the city center with the countryside—today's greenbelt—has been a great reference for the new Plan for Sustainable Mobility. Credit: Quintas.



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

La Greenbelt

Passi seguenti

Research and proposals for an inner greenbelt are currently under way, directly promoted by the present mayor, Javier Maroto.



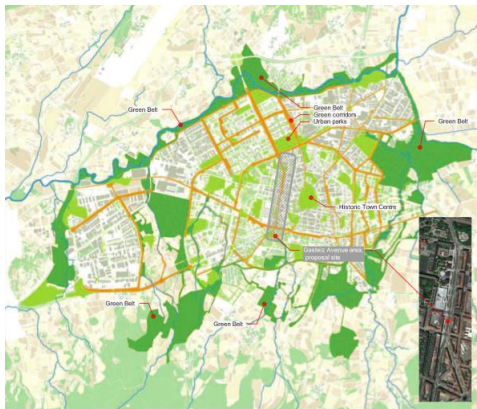
Figure 7.8 The greenbelt starts to enter the consolidated city in order to impregnate it with its values. There is great potential to increase urban biodiversity and biocapacity rates. Credit: Quintas.

P I
A O
R N
T E
E C
I P
A Z



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab



AIM OF THE INTERVENTION

THE PUBLIC SPACE PERCEPTION (AND USE) IS ENHANCED BY ADDRESSING THE ASSOCIATED ENVIRONMENTAL ISSUES (MOBILITY, DRAINAGE, CONNECTIVITY...) IN AN INTEGRATIVE WAY.

Objectives and intervention guidelines:

- Reduce the space available for the private car whilst enhancing pedestrian areas and both bicycle and public transport related infrastructures.
- Transform Gasteiz Avenue into a more energy-efficient urban corridor with a greater presence of vegetation and more space for pedestrians.
- Improve urban water management through natural systems of purification and use.
- Increase the environmental, sensorial, contextual quality of the area.
- Promote ecological connectivity and public use between the natural spaces of the south and north of the city, following the old course of the River Bidasoa to the River Zadorra.
- To socially revitalize the neighbourhood and to foster commercial dynamism.

BEFORE	ROAD AREA	AREA OF PARKS	BIKE LANE	TRAM	TRAMWAY LANE	BIKEWAY LANE
AFTER	ROAD AREA	AREA OF PARKS	BIKE LANE	TRAM	TRAMWAY LANE	BIKEWAY LANE

INITIAL STATE AND PROPOSED SOLUTION


PRE-INTERVENTION STATE


The Gasteiz Avenue is a large urban path created in the 70s. Given access to the new urban districts in the North and the new bus station. The axis of Avenida Gasteiz is a river connector, associated with the old riverbed of the river Bidasoa, along which it used to flow as far as the river Zadorra, until it was placed underground and converted into a sewerage collector.

BEFORE THE INTERVENTION, Gasteiz Avenue suffered from a series of environmental, sociological and urban issues derived from the large surface devoted to the private car. Urbanisation was highly degraded, showing high levels of noise and atmospheric pollution and the neighbourhood was immersed in a severe commercial decline.

AFTER EXECUTION

The transformation of the Avenue following a green infrastructure approach represents an excellent example of harmonic integration of the different mobility modes of the city (pedestrian, bicycle, motorised vehicles and tram) that, furthermore, creates a large space to stay, meet with others and, enjoy both the water and green spaces within the city.





Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Slep-lale – Resilient Lab

J173-1/3

URBAN TRANSFORMATION OF THE GASTEIZ AVENUE
FOLLOWING A GREEN INFRASTRUCTURE APPROACH

VITORIA GASTEIZ
green future

Infrastruttura verde urbana

Avenida Gasteiz

From a private car oriented public space



na di Ecologia del Paesaggio – Slep-lale – Resilient Lab

Infrastruttura verde urbana

Avenida Gasteiz

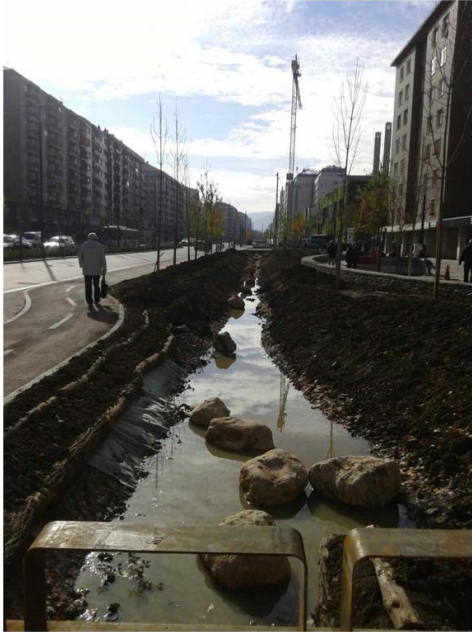
to a people and nature oriented public space



Avenida Gasteiz



Avenida Gasteiz

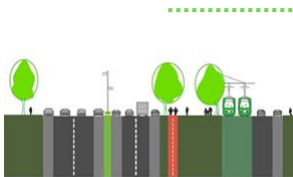


Fiume Batan

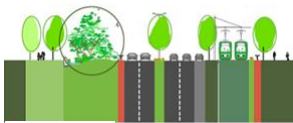


Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab



Before



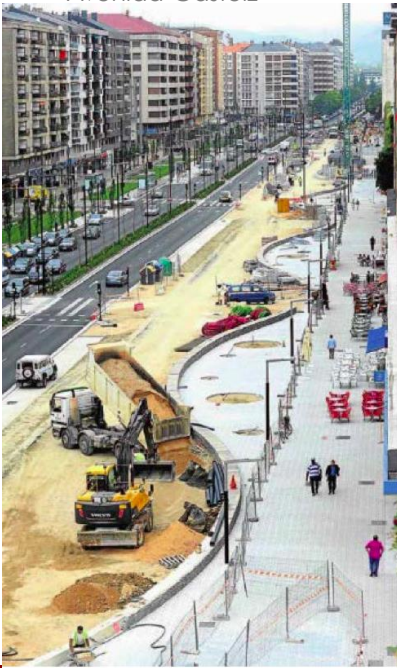
After



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

Avenida Gasteiz



GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab





La Senda walkway



Green Belt walkway

Circa 90 km di percorsi pedonali e ciclabili



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab

MOBILITA'

A commitment by tradition...



EL REINO DEL PEATON
SE AMPLIA LA ZONA CERRADA AL TRAFICO HASTA 40.000 M² Y MAS DE 20 CALLES

La pedestrianización de la calle. Siervos de... que ofrece a los conductores en la parte tra... de la Plaza de la Promoción con el... de la Plaza de la Promoción o al tráfico de...

The Kingdom of Walking.

The car free area started in 1976, and in 1993 reached up to 40,000 square meters and up to more than 20 streets. In this period, the number of cars grew by 50%

Some of the pedestrianized streets registered up to 25,400 vehicles a day before to free them from the cars.

A commitment by tradition...



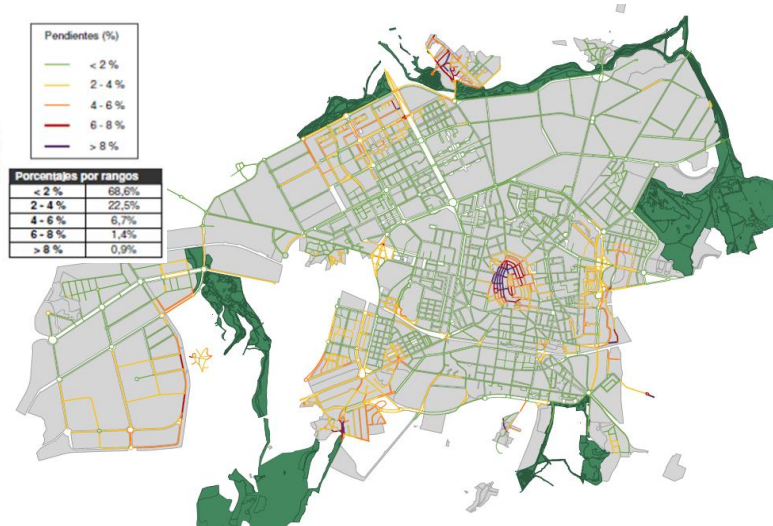
A shopping street in the heart of the medieval quarter.

Renovation of the Plaza de la Virgen Blanca, the real heart of the city, has made it a paradise for pedestrians.



Nowadays the pedestrian zones reach up to 500,000 square meters.

A commitment by opportunity...



Slope map.

Source: Sustainable Mobility and Public Space Plan of Vitoria-Gasteiz



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

A commitment by opportunity...

Adequate accessibility

- Width > 2.5 m and Slope < 5%
- Moving walkway

Inadequate accessibility

- Width < 2.5 m and Slope > 5%
- Slope > 5%
- Width < 2.5 m



Accessibility map.

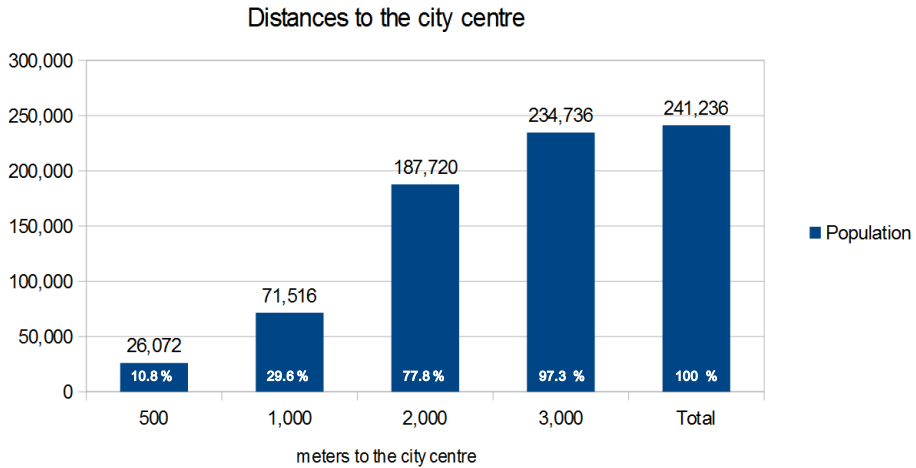
Source: Sustainable Mobility and Public Space Plan of Vitoria-Gasteiz



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

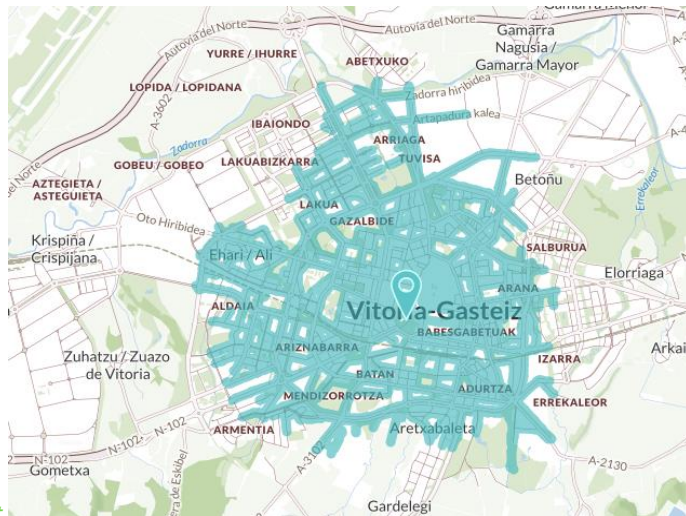
A commitment by opportunity...



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

A commitment by opportunity...



bikecitizens.net

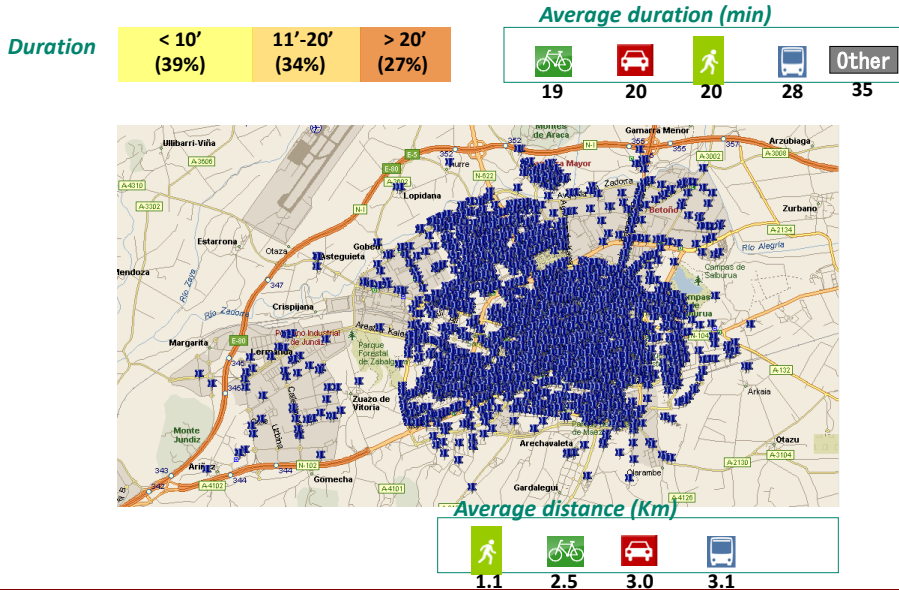
after a 10 minutes ride by bike ...



Gioia Gibelli

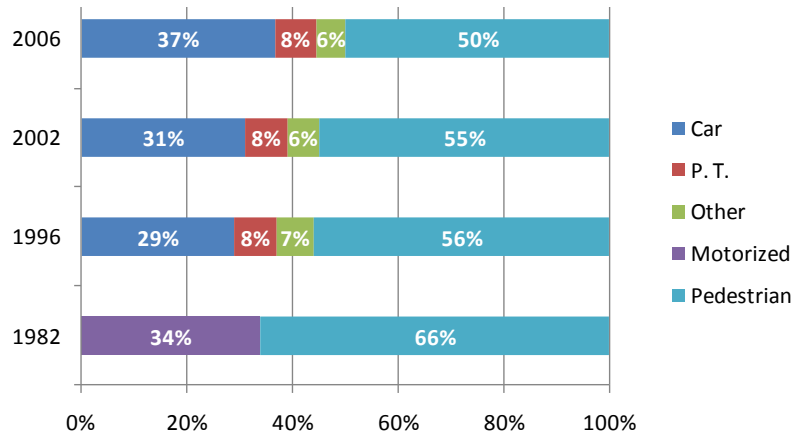
Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

A commitment by opportunity...

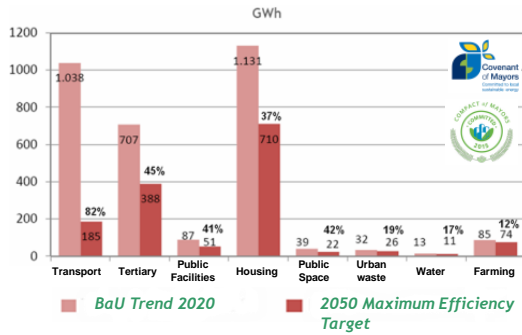


A commitment by convenience ...

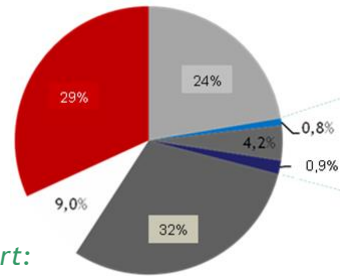
*Modal Split trend.
Changes in urban scale forces a quick motorisation in the daily mobility*



A commitment by convenience ...



Hot to become a Carbon Ne
utral City by 2050?



Private transport:
29% of CO₂ Emissions in 2006

The social consensus ...

Towards a successful Plan through citizen engagement.



October 2006
1st participatory workshop.
Mobility and sustainability in Vitoria-Gasteiz Report

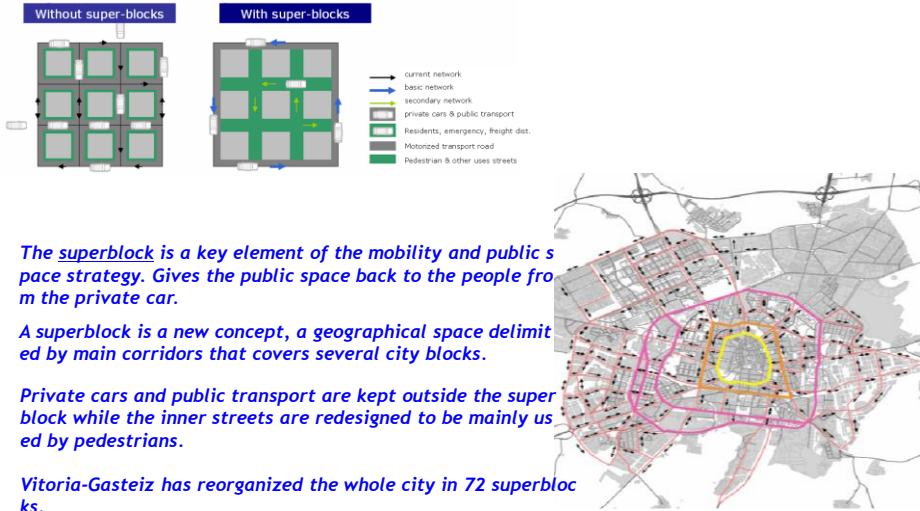
November 2006
2nd participatory workshop.
Mobility in Vitoria-Gasteiz in 2010???

January 2007
3rd participatory workshop
Citizens' Pact for Sustainable Mobility



- Citizens' Pact for Sustainable Mobility Signature. April 2007
- Plenary approval. September 2007
- Social Council approval. July 2008

A new urban cell: Superblocks and main roads.



The superblock is a key element of the mobility and public space strategy. Gives the public space back to the people from the private car.

A superblock is a new concept, a geographical space delimited by main corridors that covers several city blocks.

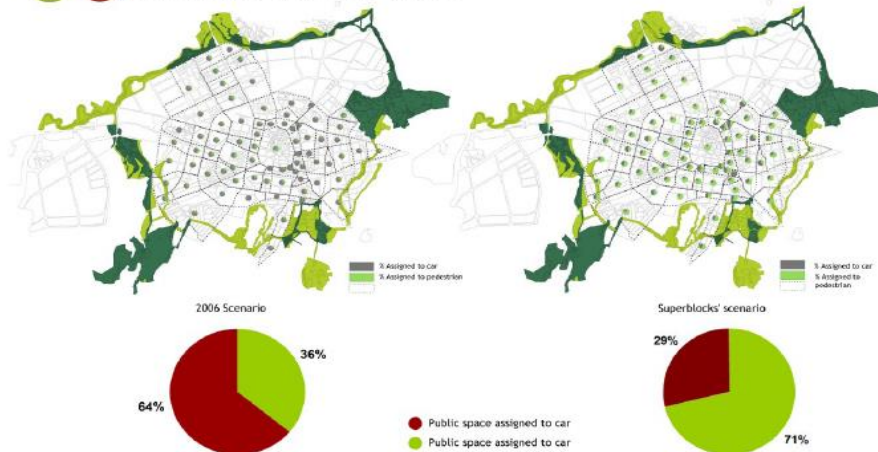
Private cars and public transport are kept outside the superblock while the inner streets are redesigned to be mainly used by pedestrians.

Vitoria-Gasteiz has reorganized the whole city in 72 superblocks.

With the scheme of the superblock is possible to create different and efficient networks for pedestrians, cyclists and motorized modes

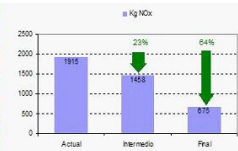
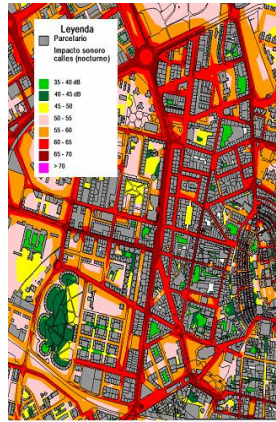
A new urban cell: Superblocks and main roads.

Allocation of public space

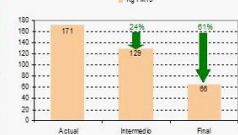


Super-block scheme allows ...

- To free public space for mobility activities, accommodation and respect for pedestrians.
- To ensure the diversity of activities in a re-qualified public space.
- To improve accessibility.
- To reduce noise and polluting gas emissions in the city.
- To not significantly affect traffic capacity, neither in the super-block district, nor in the rest of the city.



Emisiones de NOx, diarias (kg) debidas a la tráfico.
Fuente: Elaboración propia



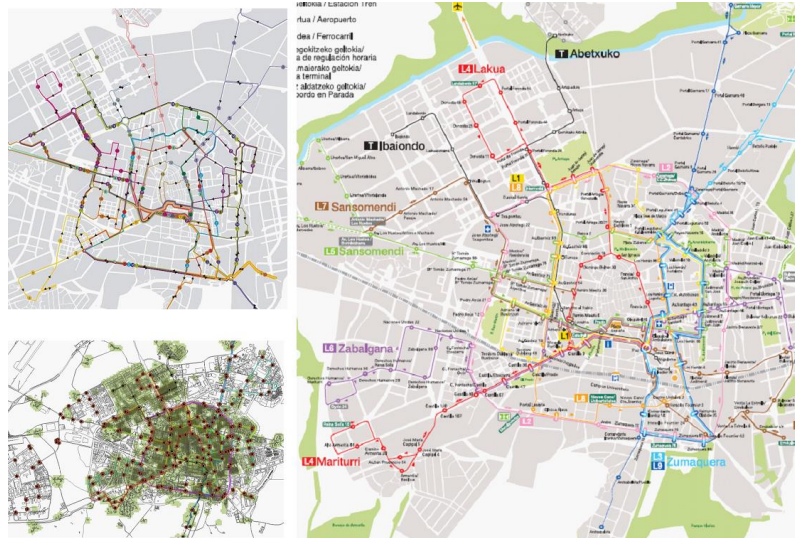
Emisiones de PM10, diarias (kg) debidas a la tráfico.
Fuente: Elaboración propia



GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab

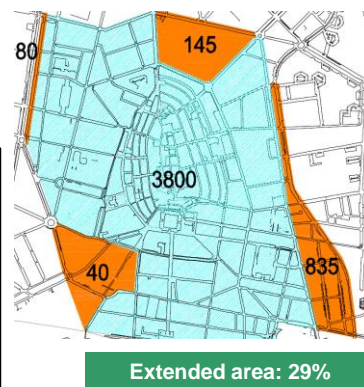
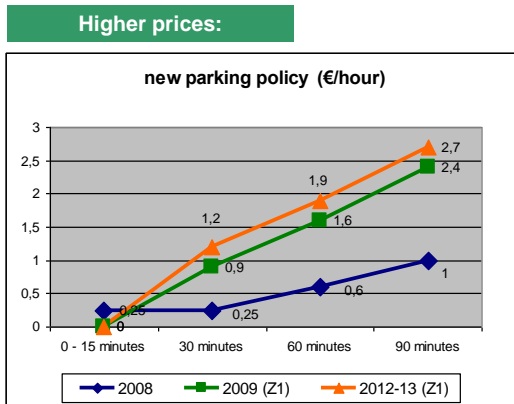


A new public transport network



GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab

A new on-street parking policy



GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab

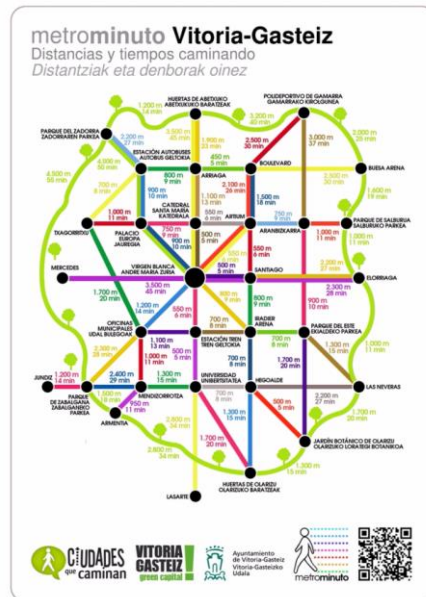
An improved pedestrian network



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Slep-lale – Resilient Lab

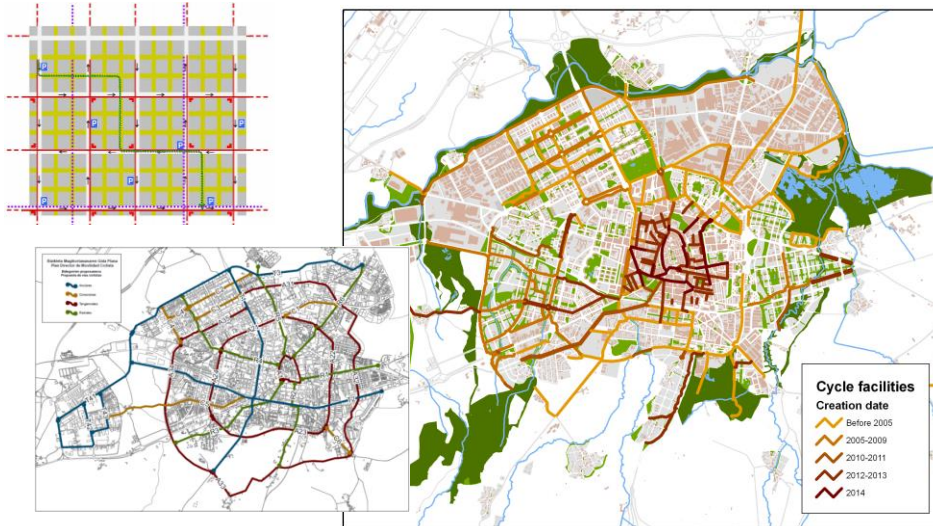
An improved pedestrian network



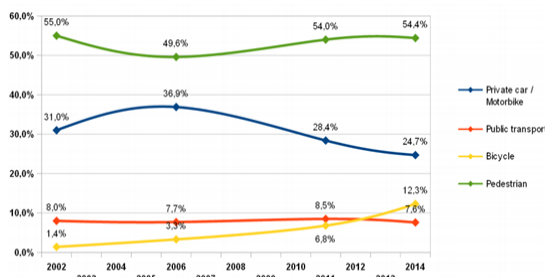
Gioia Gibelli

nt Lab

An improved bicycle network



Main figures after 8 years



We succeeded in reversing the rising trend in private car use, raising the pedestrian share to 2002 levels and increasing the use of bicycle.

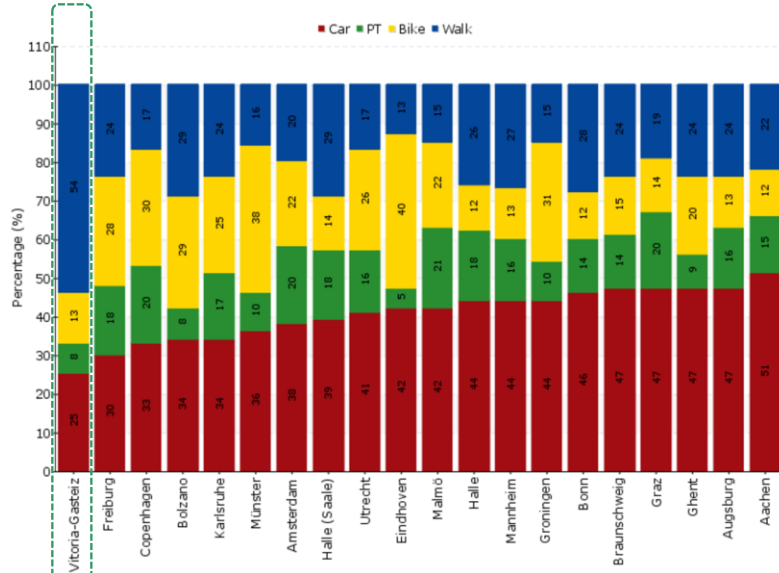
- Walking modal split has increased from 49.9 up to 54.4%
- Bicycle modal split has increased from 3.4 up to 12.3%
- Private cars modal split went from 36.6% down to 24.7%
- -9.5 % CO2 emissions in transport
- -8.9% energy consumption in transport

Trips		2006	2011	2014
GENERAL MODAL SHARE	Pedestrian	288,141	447,911	495,427
	Bicycle	19,051	56,400	111,851
	Public transport	45,045	70,854	69,491
	Car or motorbike	214,224	236,008	224,892
	Others	14,875	18,653	9,665

Number of Cars registered



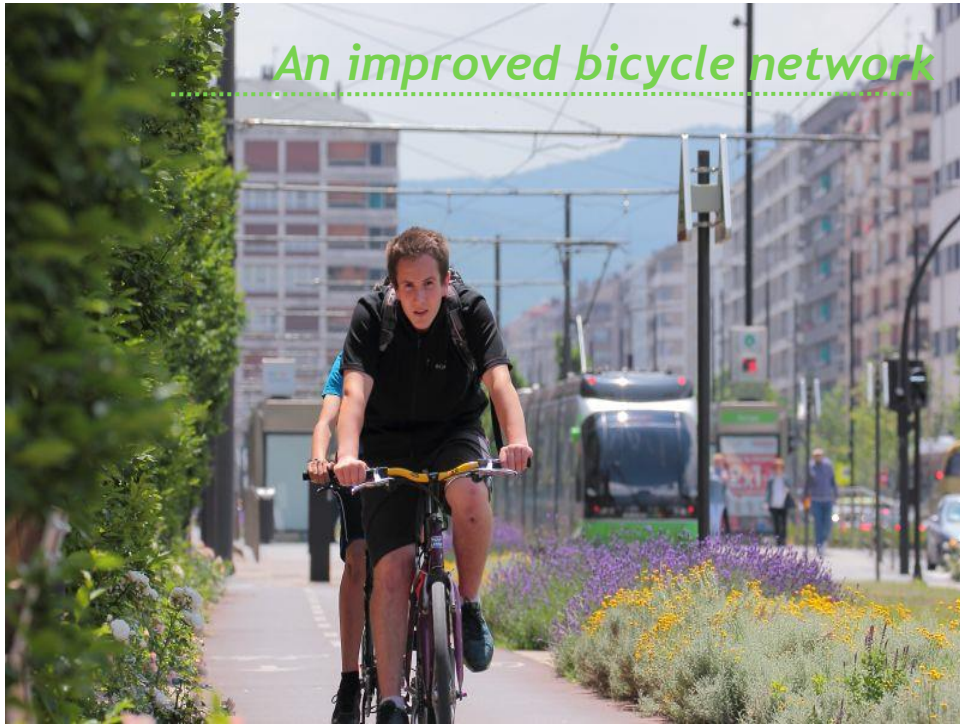
Active mobility in the focus: A value to preserve.



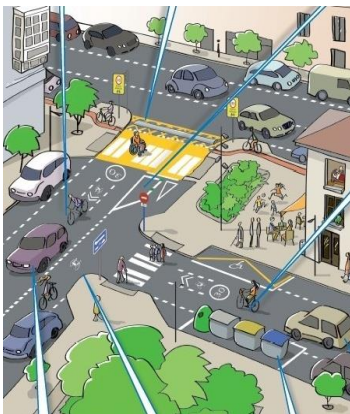
GG Gioia Gibelli Source: EPOMM Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab



An improved bicycle network



Area 30 Pilot scheme in the city centre.



The measure does not end here but extends to all city.

The increase in the number of cyclists on sidewalks and pedestrian areas has led to conflicts with pedestrians, so has been designed a traffic calming campaign in 47 streets of downtown with 3 objectives

- *Improving road safety for pedestrian and cyclists*
- *Reduce emissions of pollutants*
- *Reclaim the space for pedestrians*







Improved permeability for cyclists



Improved permeability for cyclists

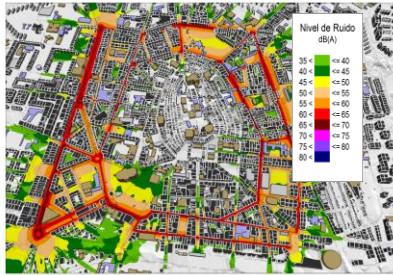


Road safety training at primary school

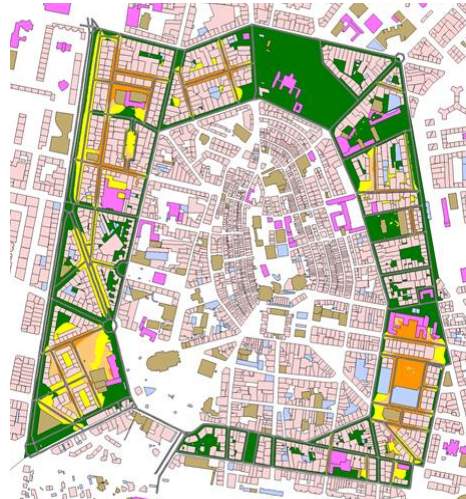
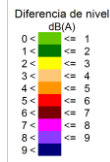


Access regulations with privileges for cargobikes

Traffic-calming assessment



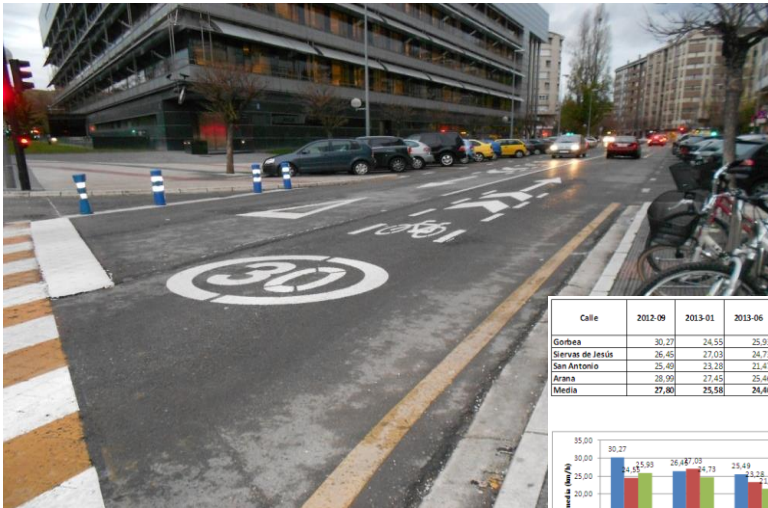
Reduction in the noise levels in the pilot area after the implementation of the measure



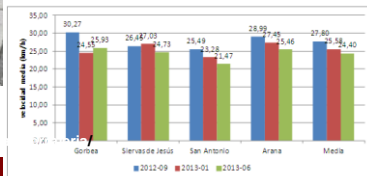
Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab

Traffic-calming assessment



Calle	2012-09	2013-01	2013-06	Variación 2012-09 2013-01	Variación 2013-01 2013-06	Variación 2012-09 2013-06
Gorbea	30,27	24,55	25,93	-18,9%	5,6%	-14,4%
Servas de Jesús	26,45	27,03	24,73	2,2%	-8,5%	-6,5%
San Antonio	25,49	23,38	21,67	-8,7%	-7,3%	-15,3%
Arana	28,99	27,45	25,46	-5,3%	-7,2%	-12,2%
Media	27,80	25,58	24,40	-8,0%	-4,6%	-12,2%



Gioia Gibelli

Soc. Italiana di

Regolare il sistema idrologico

two of the main industrial areas were laid out on the Zadorra floodplains during the 1970s, and they suffered greatly from regular flooding episodes.

1990s when, in order to avoid the frequent economic consequences of the river overflowing, the Basque government and the Provincial Council of Alava proposed to transform the river into a large concrete channel.

rejected outright by the citizens

But the most important achievement was the decision not to develop the floodable areas on the right bank of the river (figure 7.3). This would allow the establishment of a boundary for urban growth and the preservation of agricultural areas, which would also serve as natural separation pools when needed.

Regolare il sistema idrologico

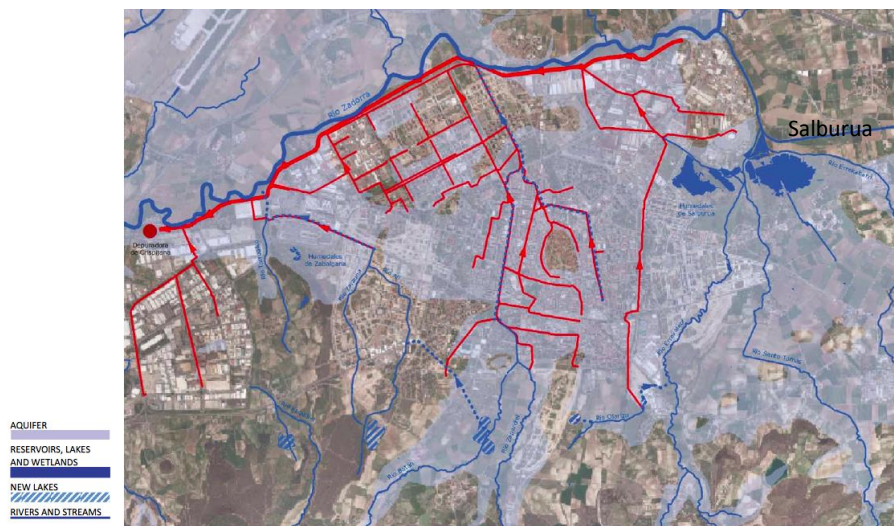




Figure 7.3 Multiple projects for ecological regeneration and hydraulic adaptation have been implemented over the last few years. The city of Vitoria-Gasteiz is situated over a huge underground aquifer, and the adequate management of the water has been of great importance for recognizing the “tangible” values of the greenbelt. Credit: CEA.



GG Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

Salburua



Figure 7.4 Only a twenty-minute walk from the city center, the Salburua wetlands have become a hotspot on bird migration routes, as several species choose this area to stop for shelter or even for breeding. Credit: Quintas.



GG Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

Le zone umide di Salburua



Gioia Gibelli

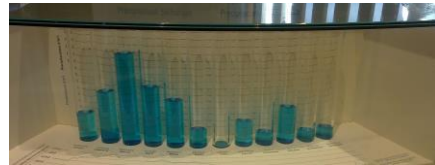
Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab







GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab



GG Gioia Gibelli Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

La green belt agricola



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

Work began in 2006 designing a system with a capacity for 250 gardens to promote ecological agriculture to farmers of all ages.

This project was 100% financed by the Izartu Program of the Basque government, with urban rehabilitation objectives and funds.

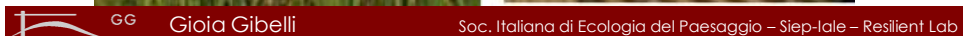
The project has played an important role in connecting socially neighboring districts.

fifteen hectares of ecological horticulture facilities were added at the north of the city in the z



the Environmental Park, known today as the Market Gardens

More than one hundred vegetable gardens
a community garden



La Greenbelt: dalla scala urbana alla scala regionale

Il Piano delle Greenways

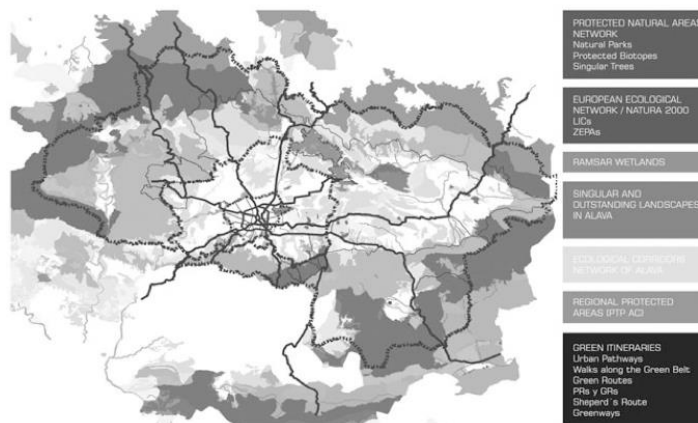


Figure 7.9 The Greenways Network constitutes an essential tool in the conservation strategy toward territorial defense and social valorization. Credit: CEA.



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-iale – Resilient Lab

La Greenbelt: dalla scala urbana alla scala regionale

La rete ecologica nella provincia di Alava

Table 7.1 Conservation strategy in Alava province

	1998	2011
Network of protected natural spaces	18,824 hectares	31,201 hectares
Natural parks	2	5
Protected biotopes	0	2
Singular trees	0	11
Ramsar wetlands	0	4
European Ecological Network Natura 2000	0 hectares	79,936 hectares
Special protected areas for birds	0	4
Sites of community importance	0	25
Catalogue of singular and outstanding landscapes	0 hectares	173,584 hectares
Singular landscapes	0	6
Outstanding landscapes	0	56
Ecological Corridors Network	0 hectares	88,000 hectares
Territorial protection areas in the regional plan	0 hectares	136,280 hectares
Green routes	36 km	1,100 km

La Greenbelt: dalla scala urbana alla scala regionale

La rete ecologica funzionale dell'Anello dell'Altopiano

La rete ecologica dell'Alava è stata selezionata come “Buona Pratica di Sostenibilità” e ha ricevuto il primo premio al concorso internazionale UN-HABITAT nel 2010



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab



Ora puoi prenotare hotel direttamente su TripAdvisor.




Anillo Verde

380 recensioni | N. 1 di 70 Cose da fare a Vitoria-Gasteiz | Certificato di Eccellenza

Riserve naturali, Parchi e natura

Panoramica
Recensioni (380)
Domande e risposte (2)


Salva
Scrivi una recensione

Tutte le foto dei visitatori (59)

L'accesso a questa attrazione è gratuito al pubblico?

Sì No Non so



Indirizzo: Vitoria-Gasteiz, Spagna
 Numero di telefono: 34945161100
[Sito web](#)

[Migliora questo profilo](#)

Aspetti migliori evidenziati dai contributori di TripAdvisor

[Leggi tutte le 380 recensioni](#)

Valutazione dei visitatori	Numero
Eccellente	9
Molto buono	2
Nella media	0
Scarso	0
Pessimo	0

“Green City”

Città nominata Green City 2013. Ottimo l'anello verde urbano e suburbano. Piste ciclabili eccellenti

Recensito il 5 settembre 2015
 Carlo P., Torino, Italia



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-Iale – Resilient Lab

http://www.vitoria-gasteiz.org/we001/was/we001Action.do?aplicacion=wb021&tabla=contenido&idioma=en&uid=u25e08f9d_14a56aaea69_7idf

GRAZIE A

Mr. Juan C. Escudero
Environmental Studies Centre (CEA)
jcescudero@vitoria-gasteiz.org

Velasco, Ane Itziar
avelasco@vitoria-gasteiz.org

Gianni Rondinella
gianni.rondinella@gmail.com



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab

GRAZIE A VOI PER L'ATTENZIONE



Gioia Gibelli

Soc. Italiana di Ecologia del Paesaggio – Siep-lale – Resilient Lab