



CiViTAS
Cleaner and better transport in cities

CAPITAL



Catalogue of Pioneer Cities and measures

Second edition, linked to the
CIVITAS Activity Fund Call
September 2014

Polis
September 2014

This document is one of three documents supporting the 2nd call for proposals of the CIVITAS Activity Fund. The two other documents are:

- The Terms of Reference;
- The Frequently Asked Questions document.

The Application Form is available [online](#).



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION

Table of contents

- PART 1. MEASURES AND THEIR TRANSFERABILITY POTENTIAL 3**
- 1.1. Collective passenger transport..... 3
- 1.2. Mobility Management 4
- 1.3. Less car intensive lifestyles..... 5
- 1.4. Public participation 7
- 1.5. Summary table 8

- PART 2. CITIES’ OFFER 10**
- 2.1 Activity Fund offer “at a glance” 11
- 2.2 City fact sheets 11
 - Bologna (IT) 12
 - Bremen (DE)..... 16
 - Bristol (UK)..... 19
 - Donostia-San Sebastian (ES) 23
 - Funchal (PT)..... 27
 - Graz (AT) 30
 - Koprivnica (HR) 33
 - Ljubljana (SI)..... 35
 - Madrid (ES) 38
 - Nantes (FR) 40
 - Utrecht (NL) 43
 - Vitoria-Gasteiz (ES) 47
 - Other case references within the CIVITAS Community 51

This document has been produced by Polis. In case you have any questions or comments please email or call Ivo Cré (activityfund@civitas.eu , Tel. +32 2 5005676).

Part 1. Measures and their transferability potential

The CIVITAS initiative has developed a typology of 8 thematic categories of measures, combined with two horizontal categories (public involvement and Sustainable Urban Mobility Planning). For the second call of the Activity Fund, the focus is put on measures that have not been addressed by the first Activity Fund call, namely:

1.1. Collective passenger transport

Measure description¹

Many European cities face increasing problems of congestion. A high-quality, modern and energy-efficient public transport system that is well integrated with other modes is key to reducing car traffic and creating an appealing urban environment.

CIVITAS cities are working on innovative ways to maximise the potential for local public transport through an accessible service that is a fast and convenient alternative to the private car.

Efforts include for instance improving security and safety, and making it accessible to people with reduced mobility. There is also a focus on building up clean and energy-efficient public transport fleets.

Moreover, integrated ticketing is crucial to make public transport and intermodal travel attractive options. Examples include smart cards that allow users to travel on different modes of public transport, or Park and Ride services that integrate parking fees and public transport fares.

Fields of activity taken into account are:

- Accessibility
- Ticketing and information
- Service improvements
- Intermodality
- Design of urban hubs
- Clean vehicles for public transport

Transferability potential

¹ www.civitas.eu

CIVITAS POINTER² provides the following insights about transferability of collective transport measures undertaken in CIVITAS Plus cities, depending on the nature of the measures:

- Public Transport Information and Ticketing and Fleet Management: There is a transferability potential of this kind of measures. However, the main condition is that the technique functions well and that, if needed, systems can be integrated. This implies well conducted research, cooperation between the stakeholders, and a realistic financial planning and time schedule within a stable organization.
- Public Transport Infrastructure, Network and Accessibility: If these measures need spatial adjustments, they might be not very easy to transfer: all kind of institutional, organizational and financial hurdles will have to be taken. Political support is actually a prerequisite for success.
- Safety and Security of Public Transport. Many of this kind of measures are relying on camera technology and are transferable. However, it is to a large extent depending on local / national circumstances related to juridical aspects, like privacy legislation regarding the use of cameras and data. Even the European legislation has to be taken in account at this point. Safety measures are often also targeting specific groups like school children, elderly, disabled, etc. These measures have a large transferability potential, when they really use the right triggers for the target groups.

1.2. Mobility Management

Measure description³

CIVITAS cities try to influence travel behaviour through mobility management, which includes marketing, communication, education and information campaigns.

The aim of mobility management is to change attitudes and travel behaviour with the ultimate goal to create a new mobility culture.

Initiatives include for instance mobility management plans for companies to get employees to travel to work using sustainable modes of transport, and awareness-raising campaigns and educational programmes at schools.

Fields of activity taken into account are:

- Mobility marketing and awareness raising
- Mobility agencies
- Personalised travel planning
- Company and school travel plans
- Campaigns aiming at influencing modal choice.

Transferability potential

POINTER⁴ states some specific topics on transferability and / or process improvement relevant for different Mobility Management measures:

² CIVITAS POINTER, Cluster Report 7 – Public transport

³ www.civitas.eu

⁴ POINTER, Cluster Report 5 – Mobility Management.

- Mobility agencies. Theoretically mobility agencies can be established everywhere. However the measures showed that this is not always easy because of the need for investments in terms of money, people, time, awareness raising and technology. This seems only possible with political support and the support of the stakeholders involved.
- Mobility marketing. To a large extent these measures were aimed at changing travel behaviour by awareness rising and providing travel information. This can be transferred easily to other cities. However it has to be realized it will have to be 'sold to the public and other stakeholders'. Therefore, awareness campaigns, target group approaches, involvement of actors, etc. are closely linked to marketing and requires expertise. Also, information provision must be simple and understandable.

CIVITAS CATALIST⁵ describes the difficulty to sustain financing for mobility agencies in the long run.

1.3. Less car intensive lifestyles

Measure description⁶

A lot of CIVITAS measures aim to get people out of their cars and onto public transport or their bike. Modern information technology, safe and secure infrastructure, bike rentals and city bike solutions are some of the initiatives cities implement to attract more people to travel by bike or walk.

Additionally, CIVITAS cities also seek ways to make more sustainable use of the car through car pooling and car sharing.

Car pooling involves sharing rides among two or more travellers in the same vehicle headed for the same destination. It can be facilitated by organised "matching" services.

Car sharing, on the other hand, involves sharing cars among a group of people that do not necessarily need a car on a daily basis. It is usually based on a membership arrangement with the vehicle parked nearby and can avert purchases of second cars.

Sharing vehicles has several benefits. For travellers, it saves money, for employers, it reduces the need for on-site parking, and then there are the obvious benefits that come with fewer cars on the road.

Fields of activity taken into account are:

- Car sharing
- Car pooling
- Car free housing
- Public and shared bicycles
- Cycling and walking promotion
- Cycling network development

Transferability potential

POINTER⁷ concludes from its transferability assessment specifically political support is important with regards to this area of activities. Alternative car use implies a paradigm shift from car ownership to car use. Such a paradigm shift is not easy to accomplish and usually

⁵ CIVITAS Guide for The Urban Transport Professional

⁶ www.civitas.eu

⁷ POINTER; Cluster Report 1 – Alternative Car Use

requires profound changes. Not only in people's mind, but also in terms of organisation and legislation. Therefore, in theory, this type of measure is transferable to other cities (every city likes to come up with new ideas, new programs, etc.), but to initiate them and to conduct them properly is not easy and requires a number of important conditions to be taken into account. These conditions can be divided into three levels.

- The first level is the strategic one. This implies that political support is essential for this kind of measures aiming at a change of the dominant culture of 'having a car for my own'. A vision of sustainable mobility may act as an important financial and institutional framework for car sharing and carpooling as in the case of Perugia for example. Furthermore car sharing and carpooling are not to be seen as stand-alone initiatives, but have to be imbedded in an overall urban mobility system.
- At the tactical level it is important that impeding institutional regulations and legislations are adjusted. An example of this is found in Bath, where the process of getting permission for on-street parking has been speeded up. At this level it is also important that there is awareness of the alternative use of cars, by citizens and also of other possible stakeholders, such as businesses, parking companies, software developers.
- At the operational level it is important to clear spatial barriers. For example the availability of suitable parking lots with special services like recharging points for vehicles. Other important conditions are proper arrangements on the division of investments and revenues and well-functioning technology, like in Craiova where the software to support the car-poolers functioned well and acted as a driver for the measure.

CIVITAS CATALIST sees many benefits for less car-dependent lifestyle-related measures. However, there are some barriers.

Carsharing:

- Only a lack of financial means is often a true barrier for the achievement of significant local measures. Some constraining legislative barriers (especially in relation to the reservation of parking places) can be found in relation to car-sharing.
- Car-sharing has a high potential of success if both citizens/residents and businesses are targeted in a complementary manner. Business usage takes place more during the day, whereas citizens use it more outside working hours and on the weekends.
- Car-sharing schemes need to be set up on a sufficiently large scale in terms of vehicles and customer base in order to attain some economies of scale and to be able to realise a significant success.
- Collaboration with local or regional public transport organisations is necessary to increase the quality of service; the complementarity with public transport, carpooling and cycling allows car-sharing to become a true alternative to private car ownership.

Carpooling:

- Flexible working hours make coordination of car pools difficult or almost impossible.
- Organisations which are located close to central public transport stations are more likely to have a large proportion of public transport users and very few carpoolers, which in itself is not a problem in terms of alternative mobility, but indicates where carpooling advocates should focus their efforts.

- Availability of company cars to employees also for private use reduces carpooling. In such cases it would be more valuable to offer carpooling in a package of alternative mobility options as a replacement for company cars.
- Carpools are said to be inflexible in unexpected situations (picking up of children or partners, etc.). Marketing should focus on carpooling as an additional service that for example replaces the second private vehicle and a guaranteed ride home programme should be established for emergency situations.

Cycling:

- Since the favouring of private car traffic from the second half of the 20th century, cycle infrastructure has been neglected, even removed during road and traffic management planning and from legal legislation and regulation. Cycling needs to be reintroduced to allow for adequate planning for cycling.
- The (sometimes slow) calendar of road infrastructure renewal which provides the opportunity to introduce cycle infrastructure can also delay the construction of a basic essential cycle network.
- Cycling in certain Member States is perceived as a dangerous activity in local traffic. A careful planning of cycle infrastructure, cycle education, and targeted marketing to overcome these often false perceptions should be put in place. urban freight logistics measures. If implemented properly (new) city logistics will be beneficiary for shopkeepers and local businesses in the areas concerned, the freight delivery services/carriers, the population and the public sector:

1.4. Public participation

Measure description⁸

Stakeholder consultation — also known as a participatory approach — is the integration of the opinions and concerns of relevant stakeholders in the decision-making process. The aim is to make the decision-making process more transparent; to gather more input on which to base decisions; and to create support for the decisions that are made. Generally initiated by the decision makers or project team, stakeholder consultation can also be solicited by the stakeholders themselves.

As part of stakeholder consultation, citizen engagement provides a means to enable local people to get involved in the planning and delivery of solutions to local problems in a way that reflects their needs. Citizens are often also the (end) users of transport services. Although decisions made by policy makers will ultimately affect the lives of citizens, it is only recently that the importance of the active involvement of citizens in decision-making processes has been recognised.

Fields of activity taken into account are:

- Establishment of temporary and permanent stakeholder forums
- Social media strategies for public participation
- Strategy development for public participation

Transferability potential

⁸ www.civitas.eu

CIVITAS VANGUARD⁹ states the benefits of public participation:

- Greater stakeholder input improves the quality of decisions.
- Controversial issues and difficulties can be identified before making a decision.
- By bringing together different stakeholders with different opinions, an agreement can be reached together. This prevents opposition emerging later, which can slow down the decision-making process.
- Stakeholder involvement prevents delays and reduces costs in the implementation phase.
- Stakeholders gain a better understanding of the objectives of decisions and the issues surrounding them.
- Stakeholder consultation creates a sense of ownership of decisions and measures, and improves their acceptance.
- The decision-making process becomes more democratic, giving citizens and local communities the power to influence decisions, and thus a greater sense of responsibility.
- Stakeholder consultation can help build local capacity.
- Public confidence in decision makers is enhanced.
- Stakeholders and decision makers learn from each other by exchanging information and experiences.

1.5. Summary table

		Transferability potential	Areas of activity
Collective transport	Passenger	High, technical issues to be considered.	<ul style="list-style-type: none"> - Accessibility - Ticketing and information - Service improvements - Intermodality - Design of urban hubs - Clean vehicles for public transport
Mobility Management		High, if business models for sustained operation are considered.	<ul style="list-style-type: none"> - Mobility marketing and awareness raising - Mobility agencies - Personalised travel planning - Company and school travel plans - Campaigns aiming at influencing modal choice.
Less Intensive Lifestyles	Car-Intensive	High, if certain legal issues are dealt with.	<ul style="list-style-type: none"> - Car sharing - Car pooling - Car free housing - Public and shared bicycles - Cycling and walking promotion - Cycling network

⁹ Involving Stakeholders: Toolkit on Organising Successful Consultations

		development
Public Participation	High, if based on clear objectives and expectations of participants are managed.	<ul style="list-style-type: none">- Establishment of temporary and permanent stakeholder forums- Social media strategies for public participation- Strategy development for public participation

Part 2. Cities' offer

This catalogue provides guidance on which transferable and successful measures could be explored and which leading cities are ready to support take-up processes. Information is made available on 11 potential pioneer cities, indicating for each of them which level of exchange they can offer as well as the transferable measures they have implemented and are ready to explore with a potential take-up city.

This list is not exhaustive. Within the application form for the call of the CAPITAL Activity Fund, applicants can indicate other (CIVITAS demonstration) cities to cooperate with.

2.1 Activity Fund offer “at a glance”

City	Collective Passenger Transport	Mobility Management	Less intensive lifestyles	car-	Public Participation
Bologna	Clean vehicles, P+R, integrated and smart ticketing	Mobility managers for large companies	Car sharing		SUMP
Bremen		Company travel plans	Car sharing		SUMP
Bristol	DRT, interchange	City Navigators, Mobility centre, travel plans	Taxi sharing		Community workers Travel
Donostia-San Sebastian	P+R, bus corridors	Personalised travel plans, MM for university campus	Car sharing, electric public bicycles		
Funchal	Bike and bus, dial and ride, P+R	campaigns			
Graz	Bus stops, quality measures	MM for specific destinations	Car pooling		Close dialogue with citizens
Koprivnica	Network planning		Electric car sharing		
Ljubljana	DRT, ticketing	Individual mobility marketing	Bicycle strategy		Bicycle plan
Madrid			Electric public bicycles		
Nantes	Clean vehicles, network structure, smart ticketing		Improving bicycle culture		
Utrecht	Improving quality, P+R	Planning road construction, school road safety label	Car sharing, public bicycles		
Vitoria-Gasteiz	Superblocks		Public bicycles		

2.2 City fact sheets

Bologna (IT)

Located in the centre of Italy, Bologna is a city of 373,300 inhabitants covering 14,085 km². Because the city was built during the Middle Ages, it is characterised by very narrow streets with their famous arcades or porticoes. Despite this compact layout, the city centre is still the focus of much public, commercial and cultural life.

Bologna participates in [CIVITAS MIMOSA](#).



Bologna can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/Italian
Availability of local politicians:	No

Proposed CIVITAS measures for take-up:

Collective Passenger Transport

Clean public transport vehicles.

Bologna wanted to improve the environmental performance of its public transport bus service. Based on a well-to-wheel analysis carried out under this measure, the public transport operator TPER decided to build up a small hybrid bus fleet tailored to the local context. Two serial-hybrid buses were introduced that were equipped with innovative super capacitors that replace conventional electric batteries.

Park-and-ride system

To reduce on-street parking and satisfy the mobility needs of its public transport passengers, the city used CIVITAS support to improve its park-and-ride (P&R) services. The measure consisted of three main components: introduction of a P&R car park and improvements to existing ones; better public transport connections; and the design of an electronic system for booking parking spaces in advance. An information campaign promoted the improved service. Users perceived the presence of the bus service (71 percent) along with the fare convenience as the main advantages of the P&R zones. The measure resulted in a 163 percent increase in users of the parking areas, with revenues rising by 34 percent from 2008 till 2011. Car park occupancy increased by 65 percent from 2009 to 2010 and 34 percent from 2010 to 2011. A key to the success of this measure was the fare policy that offered free parking to bus and bicycle users.

Integrated public transport fare system

Supported by CIVITAS, Bologna introduced in 2010 an integrated public transport fare system for trains and buses called STIMER/MIMUOVO. It included public bike and car sharing as well as the park-and-ride service. The system was launched together with a big information campaign on the new fares and the validation system. There was very positive feedback on the integration of services (bus and train), which clearly encouraged the use of public transport. The sales of intermodal bus+train passes increased 33 percent from 2010 to 2012.

On-board ticketing

Together with the new electronic ticketing system CIVITAS supported the introduction of an on-board ticketing system that uses an on-board computer and validator already installed on buses. After a testing phase on three bus lines, the service was activated on all suburban lines and 600 drivers were trained on system functionality.

The main barrier was the additional pay requested by drivers to issue the tickets as they considered it an extra duty; an agreement with the trade unions foresees a payment of 30 percent of total ticket value to the drivers.

According to a survey of 50 bus drivers on the first three activated bus lines, the measure improved quality and accessibility to extra-urban bus services because of the possibility to buy the ticket on board.

Recharging system for public transport season tickets

With the aim of improving the attractiveness of contactless smartcards for season tickets, Bologna created a wide network of self-service recharging points. These include selling points integrated in bank terminals (ATMs) and online services on the public transport company's website.

The bus service operator and the banks were involved in the process. A widely promoted information campaign reached users through various channels, including direct mailings to pass holders, website postings and information at ticket offices. The measure resulted in customers saving time and a record 5,636 public transport passes were renewed through ATMs within a year. The measure also achieved a reduction in operational costs of ticket offices (i.e. a personnel saving of 4,360 hours or EUR 100,000 per year — 12 percent of total personnel costs at ticket offices).

Mobility Management

Mobility managers

Before CIVITAS, Bologna set up a mobility management office to support big companies. With the support of CIVITAS, the city sought to engage more companies, including those with fewer than 300 employees, by offering software to manage employees' travel behaviour data.

The measure also included online tools, project resources, awareness events and information sessions. An innovative e-bike scheme was set up for municipal employees with 100 dedicated racks alongside free electric charging points.

The Italian Ministry of Environment and Emilia Romagna Region gave additional funding for mobility management in companies. The number of public transport passes sold through mobility management agreements increased by 50 percent between 2007 and 2011. As a result, emissions were reduced by 35 percent compared to 2008 (average value of all pollutant types), including 5 tonnes of CO₂ per year.

Less car-intensive lifestyles

Improving the car-sharing scheme.

To improve traffic flows in the city, Bologna wanted to improve and expand its car-sharing service. With the help of CIVITAS, 17 new sharing locations were opened with new low-emission cars, a restyled car-sharing website, and technological solutions to stop reserved car-sharing parking spots from being used by unauthorised vehicles. Innovative features of the new scheme included the one-way service that allows drivers to take the car from a location and leave it in a different place; a multi-day service that makes it possible to book a car from one to four consecutive days at a reduced fare; and a long-time service with a discount for bookings of more than four consecutive days.

Regular consultation days were organised involving car-sharing customers to create a ripple effect. A car-sharing conference was attended by about 20 professionals, and the public was informed through dissemination campaigns and leaflets. An online survey among car-sharing users revealed that 81 percent of respondents appreciated the new locations and 61 percent the new cars. Due to the economic recession usage declined in terms of registered hours, even though the number of customers increased from 636 contracts in 2010 to 846 in 2012 (+33 percent) and from 767 membership cards to 1,097 (+43 percent). Bologna published a guide outlining the main steps in the implementation of car sharing.

Public Participation

Policy planning and cooperation.

Before CIVITAS, Bologna had made efforts to involve citizens in its Urban Traffic Master Plan with an initiative called “Bologna, a Changing City.” CIVITAS helped to enhance this collaboration through new and innovative modalities.

A diverse range of awareness campaigns took place including exhibitions, bike days, European Mobility Week events, bike tours supported by interactive websites, brochures, DVDs and social media outreach. Surveys and meetings aimed at finetuning the communication strategy. The measure implementation resulted in increased interaction with residents. Up to 3,000 people took part in each European Mobility Week and over the project lifespan people’s awareness of CIVITAS initiatives increased 269 percent. This resulted in Bologna winning the European Mobility Week Award in 2011.

Bremen (D)

Bremen (550,000 inhabitants) is known for its ambitious mobility strategies: more than 25% of all trips are done by bicycle – in total 60% of the citizen's trips are done by the sustainable modes. 10,000 citizens use the Car-Sharing system and replaced more than 2,000 private cars. Such progress can only be achieved with the citizens.

.

Bremen participated in CIVITAS I.

Bremen can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/German
Availability of local politicians:	No

Bremen's CIVITAS award winning approach to public involvement:

Public Participation

Bremen has a strong tradition of involving citizens and local action group in the planning process. The city-wide land-use concept, the urban development concept, the SUMP and as well local implementation are subject of debate, if necessary revisions and adoption through the local elected political committees. Besides the 'traditional' ways of presentations and debate in meetings and committees, there are new forms used – like workshops with citizens (for the development of a new inner city housing area see www.hulsberg.de) or online tools (e.g. for the SUMP – see below).

Transport is also in Bremen a 'hot issue'. All citizens are users of public space – so we have to address as well ongoing behavioural issues as the long-term planning.

There is a range of collaborative engagement with citizens – from 'walk-to-school' (walking bus) campaigns and regular cycle lessons in primary school. There are more than 100 'walking buses' in Bremen. The most cycle friendly employer is awarded by the Senator for Environmental Protection, Construction and Transport

Bremen brings together a wide range of stakeholders into such campaigns (including police, NGOs, Chamber of Commerce, motor clubs, unions etc.).

The German Cycle Federation is official member of the Bremen road safety committee – thus directly involved in planning and as well in dealing with hotspots.

The Bremen SUMP is under revision with an intense involvement of the citizens. For the analysis of the situation, citizens could address their comments in an online tool (see www.bremen-bewegen.de). In the analysis phase, you could leave geo-referenced 'stickers' with your statement. These stickers became visible for everybody and allowed as well further comments or simply "I like it" or "I don't like it" comments. In total, we received 4.241 proposals, 9.567 statements and about 106.055 comments ("I like it" / "I don't like it").

In the process of developing 'scenarios' for the future development, an online-tool allows every citizens to prepare in a game an own scenario – playing with budgets, impacts and achieved credits – try it out: <http://www.bremenbewegen.de/baukasten/> (in German)

Besides the innovative online tools, also the 'traditional' ways like committee meeting and public discussions are used.

The scenarios were presented not only in regional conference for the different neighbourhoods of Bremen but as well in exhibitions in the shopping centres. These presentations took place on Saturdays in order to reach as many as possible 'normal' citizens.

The latest political decisions for the Bremen SUMP in the Bremen parliamentary Committee for Transport were unanimous! (We have currently five different parties in the Bremen Parliament).

The transparency in the SUMP process – esp. with the online tools – is a major aspect of the strategy. But it needs besides the planning process as well implementation measures that a widely agreed – e.g. improvements for cycling or the implementation of Car-Sharing stations in the housing areas to reclaim street space for pedestrians and cyclists.

It is the mix of a transparent planning process with citizen's involvement and the implementation of coherent measures that gives the SUMP process and its objectives the necessary credibility.

Bristol (UK)

Bristol is the largest urban area in South West England and is a centre of industry, commerce, education and culture. Bristol City Council is a local authority with responsibility for transport, planning and other public services covering an urban area with a population of around 400,000. Car ownership and car use in the city are among the highest in the country.



Bristol participated in [CIVITAS VIVALDI](#).

Bristol can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English
Availability of local politicians:	No

City Contact:

Alistair Cox

alistair.cox@bristol.gov.uk

Proposed CIVITAS measures for take-up:

Collective passenger transport

Dial-a-Ride

At the start of the CIVITAS project, 9,500 people were registered to Bristol's Dial-a-Ride service offering door-to-door journeys on demand in two-thirds of the city at the cost of a bus fare. As part of CIVITAS, the service was extended to a new area of the city and a new booking and scheduling system was tested. An innovative feature was the introduction of a vehicle running on liquefied petroleum gas (LPG) in the new area. User satisfaction was assessed during two passenger forums. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000.

The number of registered members increased to 10,500. Even with increased fuel use, the LPG vehicles showed a significant reduction in emissions of NO_x (75 percent), although this was accompanied by a slight increase in CO₂ emissions. In Bristol, the CIVITAS Initiative contributed to social inclusion, as for many users journeys would be difficult, if not impossible, without the service.

Southmead Interchange project

The Southmead Hospital site is bordered by roads with heavy traffic flows, which made it difficult for pedestrians to access the site safely. This CIVITAS measure promoted sustainable modes of travel to the hospital by creating a new pedestrian crossing near to the hospital entrance, relocating a bus stop to be nearer to the crossing, installing electronic real-time information in the hospital and at nearby bus stops, and producing an access map highlighting sustainable transport modes for hospital visitors and personnel. Two dedicated car-sharing parking bays were introduced at the hospital and several on-site and off-site infrastructure improvements were made.

For this measure, the city council signed a partnership agreement with local bus operator First and the North Bristol National Health Service Trust. The measure was carried out as part of the Clear Zone concept introduced within the CIVITAS project and was a result of the city's emerging access to healthcare agenda.

As a result of the measure, the Southmead Hospital site's rating in a detailed accessibility audit improved from "below average" to "good". In Bristol, CIVITAS served as an engine for behaviour change, as the production of a new Southmead Hospital travelmap gave the opportunity to promote sustainable transport as a viable alternative to the car for visitors to the hospital.

Mobility Management

City Navigators

Long before CIVITAS, Bristol recognized the need to strengthen links between transport and tourist information for visitors, particularly in relation to major events. The city introduced the Info Bus, an electric bus that provides location-relevant information to travellers at key sites such as public transport interchanges. Information is conveyed in person by staff and with displays, paper-based materials and electronic systems. To conserve battery power, the electronic display equipment on the bus was powered by a liquefied petroleum gas (LPG) generator. Prior to the introduction of this measure, stakeholders were consulted on the level and quality of transport information available. Their dissatisfaction, particularly with public

transport information, was one of the main drivers for the introduction of the Info Bus. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000. In the first year and a half, the Info Bus was present at 17 events. Some 80 percent of users found that the information was useful in planning their journeys and 50 percent said it introduced them to a service of which they weren't aware. As 60 percent of respondents agreed that the information provided had influenced the type of transport they were going to use, the measure was found capable of significantly influencing modal shift.

The TravelSmart scheme.

Before CIVITAS, the Bristol region was predominantly car based, with car ownership and car use amongst the highest in the country. With the support of CIVITAS, the charity Sustrans conducted an individualized travel marketing campaign in the city, contacting people in their households and providing information and follow-up actions to those who are likely to change their travel behavior towards walking, cycling and public transport use. At the time, TravelSmart was a relatively new concept, particularly in the UK where only a few small-scale pilot schemes had been undertaken.

To support Sustrans, the city council provided the information materials, and the local bus operator supplied timetables, trial tickets and home visits to citizens interested in bus transport. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000. The programme successfully achieved shifts towards more sustainable modes of transport (including public transport) without significantly altering journey times or route distances. The CIVITAS Initiative provided Bristol with the opportunity to import the TravelSmart method that had been successfully applied in other parts of Europe, and prove the versatility of the method across different regions.

TravelBristol Info Centre

At the start of CIVITAS, the need for a transport information centre was identified in order to improve access to transport information for residents and visitors to Bristol. The TravelBristol Info Centre was established to promote sustainable transport through improved information and services. An innovative feature of the measure was the integration of intelligent transport systems into a central data management and dissemination hub. Bus operator First provided information and ticketing for commercial bus services, and the city council provided a range of other travel and transport information. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000.

As a result of the measure, local bus ticket sales increased by 88 percent year on year and National Express ticket sales increased by 210 percent compared to sales made at the previous ticket office. As 29 percent of respondents stated that the information provided had influenced the type of transport that they intended to use, the measure was found capable of significantly influencing modal shift.

Harbourside travel plans

At the start of the CIVITAS project, Bristol was one of the UK's leading cities in the development of employee travel plans. The CIVITAS project offered an opportunity to extend the benefits of travel planning to some of the major tourism and leisure destinations situated on Bristol's developing Harbourside. Through cooperation and collaboration, the Harbourside leisure and tourism destinations established mutually beneficial visitor travel plans that are inclusive and sustainable. A core group of major destinations was established to develop and implement an area-wide travel plan. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000. As part of the travel plan measure, a cross-harbour ferry service was introduced and 30,000 visitors' maps were distributed. In

Bristol, CIVITAS acted as a catalyst for stakeholder involvement, as the core group established during the project continued to meet regularly and contribute to the development of safe and sustainable transport facilities in the area.

Less car-intensive lifestyles

Introducing the concept of taxi sharing

This CIVITAS measure targeted an area of the city that was particularly poorly served by public transport and where busy roads and waterways cut off residential areas from employment opportunities and leisure venues. In this area CIVITAS initiated a taxi-sharing service that enables people to travel by taxi within their local area at low cost, providing them with better access to local services and facilities. At the time, taxi sharing was a brand-new mobility concept in which buses and taxis are treated as complementary rather than competitive services. User satisfaction was thoroughly analysed through a survey and several in-depth interviews. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000. The scheme was successful as it attracted 125 members in six months, 44 percent of whom were over 55 years of age. They joined the scheme due to restricted personal mobility.

In Bristol, the CIVITAS Initiative contributed to social inclusion, enabling elderly people and people with disabilities to access local services.

Public participation

Community travel workers

The project plan for home zones in Bristol required significant effort to encourage inhabitants of The Dings residential area to actively participate and share their views during the planning and design process. The charity Sustrans employed two community travel workers (CTW) to involve the residents. The measure was innovative as the CTWs managed to create a network of community representatives by ensuring that each street had a recognised contact person. Communication and involvement were further developed via meetings, newsletters, street events and a successful series of door-to-door surveys. All CIVITAS measures were carried out as part of the Local Transport Plan adopted in the year 2000. The CTWs were successful in engaging 74 percent of households in The Dings, contributing towards 82 percent of residents supporting the concept of a home zone before implementation and 92 percent who were happy with the new street layout and their level of involvement.

Donostia-San Sebastian (ES)

Donostia-San Sebastian has over 180,000 citizens. For the last twenty years, the city has been enforcing a strong integrated policy in favour of walking, cycling and public transport. Considering walking and cycling as modes of transport in their own right has led to the development of a non-motorised transport network promoting this type of mobility around the city.



Donostia – San Sebastian participated in [CIVITAS ARCHIMEDES](#)

DSS can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/Spanish/Basque
Availability of local politicians:	No

Proposed CIVITAS measures for take up:

Collective Passenger Transport

Advanced park-and-ride network

Before CIVITAS, Donostia-San Sebastian was eager to better integrate trips made by car and public transport. Therefore the city developed a new management and pricing strategy for park and ride (P&R) and promoted this service to drivers. Four areas were selected as P&R sites and car drivers were offered free parking and bus travel to the city centre for Christmas shopping in 2009.

This measure was part of a package of measures to reduce the number of cars entering the city centre. It is most closely related to the measures on a new parking pricing and zoning strategy and on a P&R guidance system. The P&R scheme was not fully implemented due to strong public and political opposition, therefore no significant results were achieved. This measure highlighted the importance of building a sound political consensus before implementing what some could interpret as parking restrictions. One lesson was that it is important to provide clear information about measure objectives, including overall sustainable mobility issues. Communication with media is especially important, to ensure the information is used to boost the measure rather than attack it.

High-quality bus corridors.

At the start of the CIVITAS project, Donostia-San Sebastian had a high bus-riding rate — around 150 trips per person per year. With the support of CIVITAS, public transport operator CTSS introduced new enhanced bus services along two high-quality corridors. All buses met the ambitious UNE EN-13816 quality standard. Public transport priority and 12 km of dedicated lanes formed the backbone of the high-quality service, and real-time passenger information was also provided. This measure provided significant benefits in the form of better air quality and lower carbon emissions, resulting in better health and quality of life for Donostia-San Sebastian citizens. In 2011, for example, 88 tonnes of CO₂ were saved as compared to the business as usual situation. CIVITAS allowed CTSS to become a model and a reference in Spain for other companies in terms of quality, as it was the third Spanish company to obtain the UNE-EN 13816 certification.

New business district bus service

Before CIVITAS, the business districts were poorly served by public transport, and private cars were the preferred mode, encouraged by the availability of large, free car parks. The city wanted to make bus services more convenient for potential public transport users by increasing frequency and introducing an adapted timetable. The needs of different user groups were assessed leading to the decision of the bus company to offer an increased service of direct bus lines from the centre and residential areas rather than minibuses for the last mile. Industrial area managers promoted the improved bus services to all the companies of each business district. The use of public transport to reach the business districts increased: 123,000 extra travellers were attracted in 2010 and 230,500 in 2011, with 2006 levels as a base. At the same time, car traffic entering these areas decreased by almost 2,500 cars per day. With the new business area routes, CIVITAS found an economically viable way to introduce new services during peak hours — a difficult task in times of economic hardship.

Mobility Management

Personalised travel plans

Before CIVITAS, Donostia-San Sebastian had no experience with a personalised travel planning approach. Within this measure 300 households that were using their private cars for trips within the city, received personalised travel advice, and over 200 were provided with a free public transport pass and other incentives to try out sustainable transport options. The measure was presented to the general public in September 2010 during European Mobility Week and received good coverage in the regional press. A direct mailing campaign was sent to 3,000 households, followed by 2,000 telephone calls. As a result, 132 people tried out the alternatives, 77 percent of whom continued to use them in the three months after the free trial period. In Donostia-San Sebastian, CIVITAS served as an engine for behaviour change. The measure was calculated to have reduced the number of car trips in the city by 1.5 percent. The city decided to upscale the measure to other city corridors with the objective of reaching areas where there had been no convenient alternatives to the private car until then.

Travel plans

Daily journeys between home and work or school account for a significant part of urban travel and congestion. Donostia-San Sebastian took a proactive approach, targeting pupils and employees to opt for sustainable modes. The city made a travel plan for 10 schools and five business districts. A company specialised in organising events for children held over 60 sessions at the participating schools to promote walking, cycling and road safety to pupils, teachers and parents. It aimed at other stakeholders in the targeted areas, as well, including shopkeepers and neighbourhood organisations. The municipality worked with the managers of the business areas to develop mobility plans with the involvement of employees. A survey revealed that walking levels significantly increased after the implementation of the school travel plans (from 60 percent to 70 percent of all trips to school), while the share of the other modes declined. No significant results were observed in the business areas, because the commuter travel financial crisis delayed the company implementation of most initiatives requiring investment; only “interaction, information and awareness” actions achieved any progress.

Mobility management for the university campus

Donostia-San Sebastian wanted to reduce private car traffic to the city’s university and encourage people to use sustainable alternatives. Therefore the University of the Basque Country developed a mobility management plan containing awareness-raising campaigns and programmes for students and personnel to make collective and energy-saving means of transport more attractive and easier to use. The sustainable mobility concept has been included throughout the university educational and curricular system. Sustainable mobility analysis has been included in master’s degrees such as the sustainable development postgraduate course and another on Local Agenda 21 management.

Behaviour change on the campus resulted in an estimated savings of over 300 tonnes of CO₂ emissions annually. Thanks to a successful car-pooling scheme the average occupancy rate for cars increased from 1.3 to 1.6 occupants per car. Not only did CIVITAS act as an engine for behaviour change in the university community, it also improved perceptions of accessibility and security among cyclists.

Less car-intensive lifestyles

Car-sharing scheme

Before CIVITAS there was a long tradition of citizens owning their own cars. With this measure the municipality wanted to change people's mentality by promoting smart car use for the first time. After a research period and a tender procedure, the city issued a 25-year contract with operator IBILEK to provide a car-sharing service in the city.

Donostia-San Sebastian launched the car-sharing service in cooperation with the Basque government and other major cities in the Basque Country. After the CIVITAS project there were six vehicles in operation, four of which were electric and two hybrid plug-ins. By the end of the CIVITAS project, only two months after the carsharing system started operating, only three customers had registered for the service, with a total driven distance of 100 km. Nevertheless, this situation was likely to change after more intensive promotion. A public survey showed that among those who knew about the system, 81 percent assessed it as positive. One lesson was that more targeted promotions are needed for this kind of service. Donostia-San Sebastian aims to attract 100 to 250 registered users of its car-sharing service.

City bike scheme

Before CIVITAS, the number of cycling trips in Donostia-San Sebastian was growing. To maintain this trend, the municipality introduced a public bike-sharing scheme. The service consisted of 150 bikes and nine docking points and is available between 7:30 a.m. and 9:00 p.m. seven days a week.

The number of registered users increased steadily. In the first year of operation (2008) 1,534 users were registered, and by the end of the CIVITAS project (2012) the figure had risen to 5,678 users. The measure managed to encourage users to also make more use of their own bicycles: among the users of the public bikes in 2011 there was an increase of 25 percent of trips on private bicycles as compared to 2010. After CIVITAS, the city considered the expansion of the service to more areas in the city as well as the possibility of extending the service hours.

Funchal (Portugal)

Funchal is the capital of Madeira, an archipelago in the Atlantic Ocean. At the time of the CIVITAS project, the town had 104,000 inhabitants. Funchal is the commercial centre of Madeira, which is a Portuguese region with political and administrative autonomy and a local parliament and government. The beautiful mountainous setting that attracts many tourists poses a particular challenge to the development of the public transport network and the promotion of alternative modes such as cycling.

Funchal participated in CIVITAS MIMOSA

Gdynia can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/German
Availability of local politicians:	No

Proposed CIVITAS measures for take up:

Collective Passenger Transport

Bus and Bike

Funchal has a very hilly landscape except for a small flat area on the west and central coastal line. This discourages people from cycling. With CIVITAS support, Funchal introduced a bus and bike scheme enabling cyclists to hang their bicycles on the back of buses free of charge in order to comfortably reach the hill tops. It was the first time that Funchal tried to integrate bike and bus use in one service. During the preparation phase of the measure, the public transport operator was able to secure the patronage of local stakeholders including sports associations and cycling-related companies. The Bus and Bike programme is part of the city's concept for sustainable mobility defined by its Action Plan for Sustainable Energy (PAES Funchal, developed under the ISLEPACT project).

The measure resulted in a 0.7 percent increase in bike usage. With 56 bicycles transported via public transport in one year, results fell short of expectations, but there was some evidence that several public transport users were considering using the service in the future. As the city started out with a very low share of cycling and behaviour change takes a long time, the city regarded the slow but positive trends observed as a promising step towards the development of a cycle-friendly city.

Control system for dial-and-ride services

The Santa Luzia area near the city centre was a dense area with a 50 percent higher aging index than elsewhere in Funchal. Due to the narrowness and steepness of the roads, Santa Luzia was not served by public transport before the CIVITAS project. The city tested and launched a dial-and-ride service in this area. Whereas traditional demand-responsive services operate in low-density areas, Funchal tested it in a very dense area. To tailor the service to market demand, the public transport operator conducted a door-to-door survey among residents in Santa Luzia.

Users gave the service an overall rating of 10 out of 10. In the first half year of operations, only 1.5 passengers were transported per trip, which resulted in high emission levels per passenger. The city expected passenger numbers to increase as the service would be expanded to other areas of the city. In any case, the concept of dial a ride enhanced the overall mobility quality of Funchal and enabled the city to offer public transport services to all citizens regardless of social and physical challenges.

Park and ride with public transport school service

Before CIVITAS, attempts to develop P&R in Funchal failed because of the low frequency of P&R shuttles and bad tariff integration between the car park service and transport service. With the support of CIVITAS, Funchal integrated four peripheral parking lots within the public transport area through an integrated tariff. An innovative feature of the measure was the establishment of a new bus service connecting the parking facilities with the main school in the city to solve the problematic traffic situation during school peak hours. The municipality played a crucial role in establishing cooperation with car-park managers and schools in the target area. The measure supported the goals of the Energetic Regional Plan 2002, including the aim to implement a differentiated parking tariff to promote peripheral parking advocated in the local parking policy. After the first year, the service attracted 6,000 new public transport

passengers. The P&R service was found financially sustainable, but the new school services could only be maintained if the number of users increased.

Mobility Management

Awareness-raising campaigns for sustainable mobility

In the years before CIVITAS, there was a drastic increase in car ownership and a steady decrease in public transport use in Funchal. With the support of CIVITAS, the city conducted four awareness-raising campaigns to encourage schoolchildren to use sustainable modes, promote the pedestrian areas in the city through a city treasure hunt, encourage citizens to travel by bus, and foster eco-driving skills among citizens. The innovative aspect of this measure was the full integration of private and public transport and school schedules.

At the implementation stage, workshops were organised by the municipality to target drivers and the wider public, including through school mobility projects. The city treasure hunt attracted 1,500 participants. Surveys among participants showed that they were familiar with ecodriving, perceiving it as a way to save fuel (31 percent of respondents in 2010 and 31 percent in 2011) and lower CO₂ emissions (47 percent in 2010 and 43 percent in 2011). The city found that the bus campaign was easy to organise, innovative and inexpensive. It created a synergy among schools and environmental associations enabling the latter to reach a large audience.

Graz (AT)

Graz is the capital of Styria. With approx. 270.000 inhabitants it is a very important commercial and industrial centre in south-east Austria. Mobility - with all its challenges – is a very important topic of policy. Due its historic structure there are narrow streets and restricted space for car-traffic. Therefore the slogan of “Gentle Mobility” is the guideline to strengthen public transport, cyclists and pedestrians. The target is an environmental friendly way of mobility.



Graz participated amongst others in [CIVITAS TRENDSETTER](#).

Graz can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/German
Availability of local politicians:	No

City Contact:

DI Gerhard Ablasser

gerhard.ablasser@stadt.graz.at
www.graz.at

CIVITAS measures for take-up

Collective passenger transport

Altstadtbim

In order to promote public transport for citizens and for tourists, people can use the tramlines in the city center free of charge. The stops where this offer is valid are signed by labels "Altstadtbim". This is a present initiative for fostering trams and is funded by the City of Graz.

Public Transport Hub

In 2012 the new hub "Hauptbahnhof" was opened. Now it is possible that the tramlines 1, 3, 6 and 7 drive directly to the main railway station. There you can change in short distances between long distance trains, commuter trains, tramlines and busses (inner-city service and regional service).

Park & Ride Murpark

Together with to prolongation of tramline 4 from Liebenau Stadium to Liebenau Murpark a big parking house has been built. There you can park your car directly coming from the highway and take the tram to go to the city center. A special combo-ticket (parking and PT) is well used by the commuters coming from south-east Styria.

Primacy of PT at traffic lights

The schedule speed of tram and bus decides whether people use PT. Therefore the vehicles announce the approaching at traffic lights by special communication. Then the traffic lights change to green light so that the vehicles can pass the corresponding crossing without a loss of time.

Mobility Management

Mobility information

A special "education" for mobility is offered by the City of Graz: Specialists of mobility go to school and teach the pupils about mobility, public transport ... Then the pupils are the multipliers at home and may influence the behavior of their parents.

Older people are used to drive car to reach their job. But after retiring an own car might not be necessary, if they know how to use PT. And this information is offered by city of Graz at special events.

Mobility Cheque

Students get a cheque of € 50,- each semester for co-funding the PT-ticket. This is valid for students living in Graz.

Less car-intensive lifestyles

Brochures for cycling

Special brochures and maps inform about the potential of cycling in Graz. The cycle-routes, repair-shops are visible, together with general information of Graz.

Bring mE

Bring mE is a brand new delivery service for goods from the shops in the city centre to the customer's addresses. The goods will be collected by an E-cargo-bike in the late afternoon and delivered to the customers in the evening of the same day.

By this service people will be allowed to buy their goods by the way – and there is no need to use its own car to drive in the centre.

PT-connection to recreation areas

In the north of Graz there is a big recreation area, Almenland. This is a big natural area with mountain pastures, and a big target for people of Graz to spend their leisure. But no public transport service exists. Therefore people has to use the own car and then the parking of many cars is a big contrast to the pastures.

Therefore a special "Call and collect-service" is planned in order to offer people an alternative to reach the Almenland.

Public participation

Active participation

The City of Graz involves their citizens in public participation in order to:

- Inform them about the intended project
- Get to know their wishes / needs
- Enable an input of the citizens
- Lower the costs (late qualified objections can increase the costs of a project)

This participation was arranged at projects like Neutorgasse, Annenstraße, Hauptbahnhof...)
By this public participation SUMP's were worked out.

Additionally special guidelines for public participation were worked out. The Council of the City of Graz determined it for the future procedure in this topic.

Koprivnica (CR)

Koprivnica is a city of 30,854 inhabitants in north-western Croatia. Well-known as the city of cyclists, Koprivnica is also the educational, cultural and industrial centre of regional importance. The city's active sustainable mobility policies have yielded a high percentage of cyclists and pedestrians in the city centre. The biggest current challenge for Koprivnica in making the local transport more sustainable is the lack of public transport.



Koprivnica participates in [CIVITAS DYN@MO](#)

Koprivnica can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/Croatian
Availability of local politicians:	Yes

Measures currently under development in the Pioneer city:

Collective passenger transport

Planning the public transport

There is no organized public transport system within the City of Koprivnica. Therefore, the city aims to develop a public transport system which will connect various options of regional public transport (railway and bus service) and the new PT inside the city. The system will comprise an integrated service of regional transport operators, including an integrated ticketing system and an intermodal passenger terminal. The result will be a plan for the establishment of an accessible public transport system in Koprivnica.

The City of Koprivnica is developing the first public transport system which will connect various options of regional public transport (railway and bus service) and the new PT inside the city. It will be the first integrated public transport in the towns and cities of a similar size in the wider region. The system will comprise an integrated service of regional transport operators with a choice of innovative and attractive new transport means and service modes: electric minibuses and light city railway, together with the campus bicycle system.

In the measures various intermodality combinations will be tested in order to reach optimal solutions and to ensure the smooth flow of passenger and freight transport.

Less car-intensive lifestyles

Electric municipal car sharing scheme

Koprivnica's ambition is to make one third of the municipal fleet electric by introducing a municipal car sharing system. The deployment of 6 electric vehicles, charging stations, the programming of a web platform to organise the sharing and a training scheme for staff are at the centre of the measure. It is expected to reduce CO2 emissions by 27% and the operating cost for the municipal fleet by 24%.

Ljubljana (SLO)

With 275,000 inhabitants at the time of the CIVITAS project and a surface area of 271.67 km², the Slovenian capital Ljubljana is among the smallest European capital cities.

Ljubljana is a national and regional centre for culture, trade and science where Western and Central Europe intersect and mix with Balkan and Mediterranean influences. It is home to a university with over 47,000 students. Ljubljana residents are quite car dependent and the city absorbs 130,000 incoming cars every day. Even so, Ljubljana has made significant strides toward sustainable mobility, including by modernising its public transport fleet and services, expanding pedestrian zones and improving cycling conditions. The city aims for a modal split of one-third walking and cycling, one-third public transport and one-third “smart use” of cars by 2020.

Ljubljana participated in CIVITAS MOBILIS and CIVITAS ELAN.

Nantes can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/Slovenian
Availability of local politicians:	To be confirmed

Proposed CIVITAS measures for take up:

Less car-intensive lifestyles

Comprehensive cycling strategy

One of the most innovative achievements of CIVITAS in Ljubljana was the development of a comprehensive cycling strategy. It defined quality conditions for the city's cycling network and addressed safety issues and accessibility, granting priority to cyclists. It included information about the city's cycling vision and aimed to link cycling paths, improve bike-parking facilities and intensify cycling promotion. The city also established a public bike-sharing system called Bicike (LJ) with 300 bicycles available at 31 terminals. The city hired a cycling coordinator and developed an interactive and regularly updated cycling map with information on bicycle infrastructure, Bicike (LJ) terminals, bicycle racks, services and potentially dangerous spots.

The cycling strategy was defined after an intense citizens' engagement process and innovative promotion campaigns. Afterwards, the strategy was included in the Transport Policy until 2020, which was adopted by the city council in September 2012.

The bike-sharing system was a success, surpassing expectations. It was replicated in other Slovenian cities. Thanks to CIVITAS, the cycling rate in Ljubljana increased by 20 percent, based on the number of journeys. The input from citizens during the planning process showed that safety is the biggest influence on people's decision to get on their bike to get around the city.

Collective passenger transport

Demand-responsive services

Before Ljubljana's second CIVITAS project, travellers with cognitive disorders could get transport help only if they belonged to special associations in the city. There was a lack of accessible transport for nonmembers and visitors to Ljubljana. To address this need, the city set up a demand-responsive public transport service for people with cognitive disorders. To start, an application was developed and distributed to identify public transport lines where special services were needed. The process helped inform bus drivers about the plans to serve these passengers with public transport. Additionally, the public transport operator (LPP) introduced a novel service (perhaps the first of its kind in the world) in which passengers with Down Syndrome and autism could use buses on their own. LPP developed the system for passengers with Down Syndrome and autism in cooperation with an educational institution for youngsters with cognitive disorders called Janez Levec. Thanks to the involvement of relevant associations the measure was implemented differently than planned and consisted of a service with two additional vehicles, operated by LPP. Before the full implementation of the demand-responsive service, in January 2012, 17 customers were using the public transport service, while only three were registered in the system. After the full implementation and operation of the software tool in August 2012, all 17 users were registered. It has been noted that additional passengers not registered for the service have taken advantage of the system's features. The main lesson learned from the measure was about the importance of involving the target group from the earliest stage of planning.

E-ticketing and public transport portal

Before Ljubljana's second CIVITAS project, differences in timetables, fares and services of different providers had made the public transport system difficult to understand. With the support of CIVITAS, Ljubljana introduced a system enabling passengers to plan journeys online and travel with a single ticket on all transport modes. An integrated city card "Urbana" was introduced as a payment tool and later as a ticket covering the entire city, and, in the last phase, the region. Based on electronic ticketing technology, passengers can purchase tickets via mobile phone among other channels. The city created a common website using Google Transit that offers travel information for the entire public transport network in the city and enables route planning in Ljubljana. Ljubljana's public transport operator (LPP) and Slovenian Railways (SZ) jointly prepared timetable and station position data for the Google Transit portal.

Regular public transport users in Ljubljana's suburbs welcomed ticketing integration between two bus service providers.

It attracted an average of 34,000 users per month, with the number climbing by 600 per month. Sales and topping up of Urbana contactless cards were below expectations, although the numbers went up 20 percent from 2,167,623 in 2010 to 2,602,411 in 2012. The Ministry of Transportation viewed this measure as a national pilot project.

Mobility Management

Individualised mobility marketing

As public acceptance of transport policy is of crucial importance, the city wanted to enhance public participation in the policy process. With the support of CIVITAS, the area of the CIVITAS corridor was analysed through public opinion surveys, and a process of individualised mobility marketing was set up based on citizen involvement in setting transport policy. A brochure called "Mobile Ljubljana" with comprehensive information on sustainable mobility was sent to households and distributed at mobility info-points established during the previous CIVITAS project.

At least 50 meetings were held over four years with local partners. Thanks to the individualised mobility marketing campaign more than 2,600 people were involved, with 600 included in a special deep communication strategy procedure. Among the 600, 20 percent declared they would change their travel habits, and 50 percent declared they were reconsidering the future use of their current transport mode. The mobility brochure was distributed to 130,000 households. Implementation of measures with a high potential impact on mobility behaviour occurred only toward the end of the project, so their full impact could not be evaluated during CIVITAS ELAN.

Public Participation

Participatory planning and promotion of safe and increased bicycle use

Active engagement and participation of civil society in mobility planning and implementation is crucial. Within its first CIVITAS project, Ljubljana had focused on the development of a public participation model to enhance responsibility for future mobility development. Improved cycling infrastructure was emphasised in the starting phase. Public participation was further developed during the city's second CIVITAS project.

Madrid (ES)

Madrid is the capital and largest city of Spain. The population of the city is roughly 3.3 million and the entire population of the Madrid metropolitan area is calculated to be around 6.5 million. It is the third-largest city in the European Union, after London and Berlin, and its metropolitan area is the third-largest in the European Union after London and Paris.

Madrid is active member of CIVINET Spain.

Nantes can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/French/Spanish
Availability of local politicians:	No

Measure to be explored

Less car-intensive lifestyles

BiciMAd – electric bikesharing scheme

Madrid launched its shared bicycle scheme in the summer of 2014. It makes use of electric bicycles. Taking advantage of the experience from the beautiful city of San Sebastian, Madrid has adopted the same bike model. Specially designed for sharing programs, the robust bike has an integrated battery which lasts for about 18 hours or about 70 kilometers, according to the specifications, allowing the bikes to recharge at night. The bulky handlebar displays all the instructions and contains the controls for the start/stop, lights, and electric assistance level. It also displays the battery charge state.

The bicycle is designed and built by the Spanish company BonoPark, which is at the same time in charge of the stands and management of the system. In total, there will be 1,560 bicycles and 3,120 stands shared at 123 stations. The bicycles will be available 24/7, all year long.

Starting with an annual fee of 25 euros (15 for the public transport subscribers), the users will pay 50 euro cents for the first 30 minutes and 60 additional cents for each half-hour of use. After the second hour the price rises to 4 euro per hour.

Nantes (FR)

Located close to the Atlantic Coast, the Nantes conurbation with its 24 municipalities is the largest urban centre in western France. Since 2000, it has seen the second highest rate of population growth in France. The Nantes–Saint-Nazaire metropolitan zone combines strong economic assets with a quality of life based on a balance between the natural and urban environments.



Nantes participated in [CIVITAS VIVALDI](#).

Nantes can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	N
Systematic transfer	N
Languages:	English/French
Availability of local politicians:	To be confirmed

Proposed CIVITAS measures for take up:

Collective passenger transport

Developing a new clean public transport fleet.

The energy policy on the PT network in Nantes bus is currently based on the choice made in the late 90s in favour of CNG.

Currently, more than 80% of the bus fleet is CNG-powered. This choice allows the conurbation to meet environmental (reducing fine particles in particular) and economic (energy costs, investment costs) targets. To continue its policy of energy transition towards cleaner systems (Green House Gas reduction) and support citizen request to decrease the noise of public transport, Nantes Métropole and its operator SEMITAN are testing and integrating new technological developments in fuelling solutions (hybrid or electric vehicles for instance).

Structuring of the public transport network

The PT operator and the urban authority of Nantes cooperate on the structuring of public transport. Constructed during their CIVITAS project VIVALDI, line 4 entered into service on November 6, 2006. Completing the 3-line tram network, the bus line was the result of a bet: offer the same level of service with a bus system as with a tram. Indeed, the BusWay applied all the elements that characterise the tram: dedicated lane, dedicated rolling stock, well-designed and equipped stations, priority at all intersections, high frequency. Moreover it serves four park & ride facilities within extended hours. The line is seven kilometres long and has 15 stations.

The EUR 50 million infrastructure costs and EUR 9.2 million cost for 20 natural gas buses brought the total to EUR 8 million per kilometre, about three times less than what a tramway would have cost. Punctuality went up to 95 percent with an average service speed of 21 to 23 kilometres per hour. Frequency during peak hours was increased in 2010. Ridership increased from 17,000 users per day at inauguration to 21,000 after four months and 30,000 in 2012.

The smart ticketing “libertan” project

Libertan is a multimodal contactless smart card with a post payment system: users validate each time they board the PT network and are invoiced the following month on the basis of their real consumption. The system also calculates the best rate applicable up to the maximum limit of the price of a monthly ticket.

In a first phase, the smart card is opened to all public transport modes available in the urban area: buses, busway, navibus, and regional trains.

In a second phase, Libertan will be enlarging its scope to integrate other mobility modes:

- P&R under access control
- Marguerite, the carsharing service,
- Bicloo, the self service bicycle rental system.

The objective is to give users a “key” to alternative mobility solutions, encouraging them to go from one mode to the other or to combine them to find the better match for their trips. As such, the card will increase the integration and draw coherence between all the mobility options available in the conurbation and promote their use.

The Libertan smart card is developed within an Interreg IVB project called SITE, which

objective is to work together on the development of smart ticketing products and to address the barriers to interoperability of tickets in the Atlantic Area. The ultimate goal is to be able to purchase in one region a smart ticket that can also be used in the transport networks of other regions of the Atlantic area, thus facilitating the use of public transport.

Less car-intensive lifestyles

Improving bicycle culture and services

Ville à Vélo and Bicloo. Before CIVITAS, Nantes did not have high cycling levels. With the initiative's help, a long-term rental service, Ville à Vélo, was introduced in 2004 and a short-term service, Bicloo, followed in 2008. New bicycle racks and secure bike-parking facilities were installed at several transport interchanges. The success of Ville à Vélo (12 percent more rentals in 2007 compared to 2006) led to the enlargement of the service. The biking culture is still growing, with 23 percent more rentals in 2012 compared to 2011. The bike service now has 120 electric bicycles and 150 regular ones.

Utrecht (NL)

Utrecht is the fourth largest city of the Netherlands with a growing population of 300,000 at the time of the CIVITAS project. Given its central location and history dating from Roman times, it is a popular destination for tourists. The city attracted about 90,000 commuters a week, a figure projected to double in 20 years' time.



Utrecht participated in [CIVITAS MIMOSA](#).

Utrecht can offer the take-up level:	
Being inspired	Y
Structural dialogue	Y
Studies	Y
Systematic transfer	Y
Languages:	English/Dutch
Availability of local politicians:	No

Proposed CIVITAS measures for take up:

Collective passenger transport

Improving bus service quality between the centre and the north.

The bus line between the central station and the north of Utrecht was the only public transport corridor in the city where buses did not have a separate, priority lane. This resulted in long travel times and unpredictable services. With the help of CIVITAS, traffic light prioritisation was installed and a series of medium- and long-term measures were suggested for implementation or continuation after the end of the CIVITAS project.

Park-and-ride facilities

Before CIVITAS, car traffic into the city centre of Utrecht had increased continuously. Park-and-ride (P&R) facilities were needed to keep the city accessible, improve air quality and offer citizens a clean and healthy living environment. CIVITAS supported the development of the P&R concept comprising a high-quality public transport service combined with an increased number of P&R facilities. A broad campaign targeted social-leisure visitors and commuters with a website, an app and promotional activities. The extension of the paid parking area in Utrecht and the closure of 1,000 parking places near the city centre made the P&R facilities more attractive.

A baseline survey helped to better target the promotional activities. Specialised contractors for the various parts of this kind of measure proved to have added value.

There was a significant increase in the number of P&R tickets sold at three of the four facilities. As there were multiple CIVITAS measures aimed at decreasing traffic it is difficult to gauge the precise impact of this measure. The increase in awareness and satisfaction was marginal, however. The city recommended a thorough analysis of transport and parking options, as well as of potential P&R users, before implementation. Beyond the framework of CIVITAS, the city of Utrecht recognised the relevance of P&R services and decided to implement two additional P&R facilities by 2016.

Mobility Management

Planning road construction and communication

Before CIVITAS, communication about accessibility and traffic disruption was done by five different municipal departments, as well as by institutions such as the province and the national road authorities. With the help of CIVITAS, the Utrecht Accessible Foundation wished to make communication more consistent and standardised. Detailed synchronisation of the planning of roadwork activities was therefore necessary.

As part of this challenging and innovative measure, a brand was developed that was used in all communication about roadworks. Messages were conveyed through a single media channel by one spokesperson. The Manual for Communication on Roadworks and Events was developed. It was a practical tool guiding the planning and implementation of project communications.

The communication strategy was considered to be clear, as 65 percent of survey respondents knew when roadworks would commence in their neighbourhoods, 47 percent knew when they would start on highways and 22 percent knew about project details elsewhere in the city, even if they were not affected by the works. Furthermore, 91 percent said they would change their travel behaviour if they were aware of roadworks

School road safety label

Before CIVITAS, road traffic education had been given low priority because school curricula was already chock-a-block with other important lessons. With the help of CIVITAS the Utrecht Road Safety Label (URSL) was developed, offering schools the opportunity to set up and execute a structural traffic education plan at their own pace. It helped raise awareness of road safety through education and to improve road safety around schools.

A pilot study was conducted with eight schools in five school zones to test the concept and materials. It was a difficult task to get schools involved due to their many other activities. Getting parents engaged was also a challenge. But the measure was a huge success story in Utrecht. In October 2012, 38 primary schools received the label and another 32 schools were actively working to meet the criteria. Satisfaction about road safety around URSL schools increased and 54 of the 70 participating schools' environments were redeveloped with a school zone. The city would recommend: a pro-active approach to the school by a partner with a firm understanding of school practices; a consistent package of information that shows why it is in their interest to participate; and participation being free of charge.

Less car-intensive lifestyles

Car sharing

Before CIVITAS, the city facilitated carsharing initiatives with around 200 cars in and around the city centre, particularly in neighbourhoods with paid and reserved parking spaces. With the help of CIVITAS, these services were expanded to residential areas on the outskirts of the city, based on market and segmentation research with more than 1,000 participants.

The city worked together with marketing company Emotion and network agency Nudge and with all relevant businesses. One of the main barriers observed was a disagreement between one of the car-sharing providers and the other stakeholders involved regarding the special tariff proposed to users during the campaign.

Implementing the measure led to reduced private car mileage and increased use of car sharing. Between June and August 2012, the number of car-sharing members increased by 298. Of these, 13 percent (39 new members) signed up through the campaign website. The success was partly due to the combination of a consumer platform that promotes sustainable projects by bringing people together (bottom-up) and cooperation with a communication agency that designed the campaign's visual identity (top-down).

Public and rental bikes (not fully implemented).

At the start of the CIVITAS project, bicycle use in Utrecht was high: 52 percent of the residents normally made city centre trips by bike. As the city wanted to give priority to the bicycle as the main mode of transport within the city, this measure aimed at implementing a

bike rental system with a dense network of pick-up and return points for both commuters and visitors.

A preliminary survey showed that most of the relevant partner companies thought that bike sharing would not be profitable without an annual public subsidy to cover expected losses.

After local elections the measure was suspended due to lack of political support and the only mildly promising results of a second market survey. Nevertheless, the city continued working on its bicycle management strategy to stimulate demand and supply, including through a bike system for public transport commuters working downtown. Two recommendations based on this measure concern the need for a clear definition of the target group as well as the consideration of a national-level design rather than custom-made local systems in each city.

Vitoria-Gasteiz (ES)

With a population of 233,399 inhabitants, Vitoria-Gasteiz is the capital of the autonomous community of the Basque Country. Unspoiled by massive urban sprawl, the city has always been noted for its careful planning, human dimension and attention paid to balancing new developments with environmental concerns and social initiatives.



Vitoria-Gasteiz participated in [CIVITAS MODERN](#).

Vitoria Gasteiz can offer the take-up level:	
Being inspired	Y
Structural dialogue	N
Studies	N
Systematic transfer	N
Languages:	English/Spanish
Availability of local politicians:	No

CIVITAS measures for take-up

Collective passenger transport

Superblocks model

Regarding the implementation of these principles of sustainability in terms of mobility, the scheme chosen in Vitoria-Gasteiz is the superblocks model. To understand this concept, we must know that our cities were designed for cars rather than for the citizens. This starting point determined to a great extent the use of public space by pedestrians, cyclists and public transport. In order to reverse this trend and return the public space to citizens, Vitoria-Gasteiz sought a change in its structure related to the mobility model through the implementation of the superblocks scheme.

The superblocks are urban units of varying dimensions where motorized mobility is moved to the surrounding streets and, so that the inner streets are reserved for pedestrian and cyclist mobility, for the public transport, neighbors and services. Through traffic is removed and the interior roads become calmed streets.

Ultimately, superblocks are a measure of urban planning that allows ordering mobility with the aim of reducing public space for the cars and giving it back to the citizens. To deploy the superblocks model it is necessary to establish first a hierarchy among the various types of roads. This way we distinguish between basic streets (through streets) and secondary or inner streets (living streets). These last streets will be closed to vehicles that just want to pass through and will be open way for the others at certain times.



Urban planning scheme based on the superblocks model - Source BCN Ecología

Starting from this innovative model of urban planning, pedestrian and cyclist infrastructure in our city is integrated in and adapted to the superblocks scheme. This superblock model contributes this way to enhance the pedestrian condition in Vitoria-Gasteiz and, at the same time, to strengthen the bicycle as a mode of transport more effective and safe.

In the end, rather than defining a new hierarchy for pedestrian and cyclist infrastructure, this model envisages a mobility scheme that limits the space and the speed of passing vehicles. This scheme results in a public space and an urban landscape with more quality, which makes urban displacements more attractive, comfortable and safe, both pedestrian and by bicycle.

Before CIVITAS, the traditionally strong pedestrian mobility culture in Vitoria-Gasteiz was threatened by the rise of the car and physical growth that was making pedestrian mobility less and less competitive. With the support of CIVITAS, the city planned the redesign of public space into 77 superblocks, reserving the space within each block for pedestrians and cyclists. It tested the implementation of one demonstration block and established 16 other blocks within the project period. The measure was highly innovative, as it radically banned public transport and most car traffic from the insides of superblocks and aimed to convert much of the inner space into pedestrian areas with playgrounds, benches, vegetation and wifi connection.

Regular meetings with technicians, politicians and citizens' associations assured a strong consensus for the measures to be implemented. The superblock model was proposed in the

city's Sustainable Mobility Plan and was closely linked to other CIVITAS measures. A big campaign targeting citizens helped foster favourable attitudes toward a new culture of sustainable mobility.

Pedestrian area in the demonstration superblock increased from 45 percent to 74 percent. Noise measured inside the superblock dropped from 66.5 decibels before the action to 61 decibels afterwards due to the reduction of motor traffic. Air quality improved with a 42 percent reduction in CO₂ and NO_x; and a 38 percent reduction in particulates. The measure affected the rest of the city in terms of reduction of motorised mobility and, to a lesser extent, an increase of cycling and pedestrian mobility. Citizens' satisfaction was very high. The CIVITAS project helped the municipality to secure additional funds for public works from the Spanish Fund for Local Investment.

Less car-intensive lifestyles

Vitoria-Gasteiz' package of measures to calm traffic

The City Council of Vitoria-Gasteiz has identified a real problem where cyclists, pedestrians and cars interact. Mayor Javier Maroto announced that the City Council will apply a package of measures to calm traffic on some streets with the aim that cyclists can use these roads safely. The city's Sustainable Mobility Plan defines which streets are affected by the implementation of measures to avoid the vehicle traffic. The action promises to be remarkable as the City Council plans to intervene in 45 streets within 17 superblocks surrounding the central superblock in the historic centre. Reforms will include painting, signage and placement of a coloured, embossed asphalt, which warns drivers that they are entering a traffic-calmed area. Some of the streets that will benefit from the measures are: Fuegos, Olaguibel, Postas, Pío XII, Jesús Guridi, Canciller Ayala, Juan XIII, Isaac Albéniz, Francia, Libertad, Portal de Arriaga, Cercas Bajas, Beato Tomás de Zumárraga, Eulogio Serdán, Koldo Mitxelena, Bizenta Mogel o Madre Vedruna.

Other case references within the CIVITAS Community¹⁰

Collective passenger transport: clean buses in Stockholm

Stockholm – the capital of Sweden – has a population of 870,000. It is located on 14 islands on Sweden's southeast coast. The public transport buses and private fossil-fuelled vehicle fleet is being replaced with clean vehicles that run on biogas and ethanol. Stockholm has the largest number of clean vehicles per city in Europe: As of 2012, Stockholm is fully serviced by clean buses – 800 bioethanol and 270 biogas buses are running on a daily schedule. In addition, there are over 160,000 clean vehicles operating in Stockholm, including 1,400 clean taxis and approximately 100 clean police vehicles – the majority of them running on biogas and bioethanol – and over 60 biogas-fuelled waste collection vehicles. Stockholm has a comprehensive infrastructure for alternative fuels, in accordance with the size of the growing clean vehicle fleet. Local biogas production facilities supply a portion of the alternative fuels.

The expansion of the clean fuel fleet is fostered along three axes:

1. Dedicated promotion of clean fuels
2. Increase in the number of clean vehicles in the public fleets
3. Improving the filling and maintenance infrastructure for clean vehicles

The use of biogas took off starting in 2004 when the public transport company introduced its first 21 biogas buses. As a response to the increased demand, biogas was purchased from the nearby cities of Linköping and Västerås. The number of filling stations increased from four in 2004 to eleven in 2007. The gas is transported by lorries to the gas stations, as there is no grid. Within the Biogasmax project another 105 vehicles were tested. Four new production plants have started operation (Himmerfjärdsverket, Käppala, Loudden and Scandinavian Biogas), and several new public biogas fuelling stations have opened. A local grid connecting the main biogas production plants with bus depots and filling stations was completed in 2011. Stockholm taxis adopted a clean vehicle policy where biomethane is the favoured fuel. In 2009 they ordered 350 gas fuelled cars. By 2006, the local measures had already proved that the introduction of biogas led to reduced emissions of fossil carbon dioxide by 86 percent and emissions of nitrogen oxides, small particulates and carbon monoxide by 50 percent, although hydrocarbon emissions were 20 times higher.

Maintenance costs for gas-fuelled vehicles are in general higher than for diesel vehicles. In order to give an indication: maintenance costs rose from EUR 0.033 per km to EUR 0.045 per km for the biogas petrol engines. Motor oil consumption was twice as high for biogas vehicles compared to diesel vehicles, and fuel consumption was 60 percent higher, yet prices are in general set much lower for gas. Noise levels fell by 50 percent. More than 90 percent of drivers would recommend driving biogas heavy vehicles to others.

As a result of continuing efforts beyond the CIVITAS TRENDSETTER project which ran from 2002 to 2006, 130 biogas buses and 500 ethanol buses had been put into operation by Stockholm Transport by 2010.

¹⁰ Taken from the CIVITAS Guide for the Urban Transport Professional.

Collective Passenger transport: Real-time travel information in Rome

One of the main tasks of the Mobility Agency of Rome is to supply updated and reliable real-time travel information to citizens. The idea of combining the information available on public and private mobility and providing this to citizens in a user friendly way was initially investigated during the CIVITAS MIRACLES project (2002 – 2006). In 2008 the “Atac mobile” application (renamed “muoversiaroma” in 2012) was launched. It was the first attempt at providing a set of open data using a common platform. The service is available in two versions: XHTML, accessible from all mobile phones with a web browser and the URL www.muoversiaroma.it.

The following information is available:

- Bus waiting times (information on arrival times by bus line at each bus stop)
- News – real time news on traffic, status of road works, demonstrations
- Access restrictions in place Traffic bulletin – allows to check a list showing the traffic conditions by zone
- Urban travel times – on 130 kilometres of main roads of the capital
- Journey planner
- Video cameras – four cameras display various traffic situations
- Bike sharing – users can check the availability of bikes
- Parking – users can check the availability of parking spaces in four city parking locations
- Ticket offices location