Promoting Active Modes of Transport

A Policy Brief from the Policy Learning Platform on Low-carbon economy

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Interreg Europe

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Summary

Active transport most commonly refers to walking and cycling, but other modes include skateboarding, skiing and running. Research has repeatedly shown the health benefits attached to active transport, but other benefits include the potential for active travel to reduce car use, which would reduce congestion, air and noise pollution, as well as energy use and greenhouse gas emissions. Regional authorities have a range of policy options available to them to encourage active transport. One of the main objectives is to make active transport more convenient and safer for users, as these factors have a large impact on mobility choices made by citizens.

Active transport: modes and benefits

Active transport (also referred to as active mobility or active travel) incorporates all modes of transport relying on human power for propulsion. The most familiar modes are undoubtedly walking and cycling, which account for 20-40% of all journeys made in the EU. Other less common methods include kick-scooters and skateboards, kayaking, skiing and running.

Increasing the share of active transport can result in a range of societal benefits. These benefits accrue both as a direct result of partaking in active transport, but also from the displacement effect of reducing the modal share of passenger cars. Half of all car journeys made in European cities are shorter than five kilometres, and it is estimated that more than half of motorised cargo trips in cities could be handled by cargo bikes. This gives a snapshot of the huge potential to shift towards active transport modalities in cities. Benefits include the following:

- **Health** – Physical inactivity is the fourth leading risk factor for global mortality, according to the World Health Organisation (WHO). Due to sedentary lifestyles, cases of obesity, heart disease, strokes and certain cancers and diabetes are rising. Changing mobility behaviour towards more active travel could have huge benefits for physical and mental health. For people who cycle or walk a minimum of 150 minutes a week as recommended by the WHO, the risk of mortality is reduced by 10%. In the EU, more than 100,000 premature deaths could be avoided annually if every adult walked or cycled an additional 15 minutes a day. Though active transport may increase exposure to air pollution or risk of injury from traffic crashes, the benefits outweigh the risks by about nine to one.
- **Environment** – Active transport modes are zero emissions methods of travel. The associated environmental benefits from a shift from cars to active transport would include significantly reduced energy consumption and greenhouse gas emissions: currently road transport accounts for about 20% of the EU's total CO2 emissions.
- **Air pollution and quality of life in cities** – Over half a million deaths each year in the EU are linked to air pollution, and the health impact of traffic fumes alone cost EUR 67 billion a year. This is most acute in urban areas, where the potential is highest to shift to active modes of transport. An increase in the share of active transport would also have positive impacts with regards to congestion, noise pollution and road safety, helping to increase the quality of life in urban areas.

- **Congestion** – The European Commission estimates that road congestion costs 1% of the EU's GDP per year (around EUR 100 billion). Increasing the modal share of active transport is highly likely to reduce congestion – bicycles consume seven to ten times less space than cars while moving in urban areas, and eight to 50 times less space while parked. However, the exact impacts of walking and cycling measures on congestion can be hard to quantify. To better understand the relationship, the Horizon 2020 project Flow studied the impact of different measures implemented in six European cities. The project results confirmed that walking and cycling measures do reduce congestion, and multiple benefits can be observed as a result. An 'Implementers Guide' was produced, describing tools and measures for tackling congestion through increased walking and cycling.

Benefits linked to improved walking and cycling conditions (e.g. infrastructure, image, awareness)	Reduced travel time and more comfort for cyclists and pedestrians
	Increased accessibility to amenities
	Improved traffic safety for vulnerable user groups through increased visibility & safer infrastructure
	Increased mobility level through better affordability of transport for lower social classes
	Reduced energy consumption
	Reduced land consumption via sealed surface from deconstructed traffic area
Benefits linked to reduced motorised vehicle usage	Reduced GHG & other harmful emissions
	Reduced noise pollution (only gains relevance at min. 50 % of reduction of motorised traffic, therefore effect in FLOW is not depicted)
	Increased traffic safety through the reduction of motorised traffic
	Reduced mobility (thus vehicle operating) costs
	Reduced vehicle travel time through diminishing congestion level
	Improved quality of life by more social interaction and reduction of separation effect
	Improvement in private businesses via increased attractiveness of public spaces

Source: Flow project, 2016

Convenient and connected infrastructure

Of course citizens know that cycling or walking is healthier and less polluting than travelling by car, but active transport also needs to be convenient. The key to this is providing adequate infrastructure for pedestrians and cyclists.

Wide pavements or paths, and dedicated road crossings increase convenience and comfort for pedestrians. Options such as outdoor escalators can also make walking more attractive, especially for the elderly who may otherwise find stairs a challenge, and inhabitants and visitors to mountainous regions. Walking paths should be well connected and should create links between places of interest and public spaces. The integration of green elements and plentiful seating also makes walking more attractive.

Dedicated cycle paths, separated from motorised traffic are linked to increased cycling levels. Connectivity and coverage of bike path networks are also important (see *Bicipolitana Pesaro* good practice), with the vicinity of a bike path to a person's home known to increase the

attractiveness of heading out on the bike. End of trip facilities such as adequate and secure bike parking (including charging points for e-bikes), and shower and locker facilities at workplaces, also promote cycling.

Bike-sharing systems are increasingly common – now present in more than 1,000 cities worldwide – and can help make cycling more attractive. These schemes allow users to rent bikes for a short time period at a small cost. Moving from an ownership- to a service-based model can be more convenient for users, and removes some drawbacks of bike ownership such as maintenance costs and risk of theft. It can also be easily combined with other modes of transport within the Mobility as a Service (MaaS) model.

CYCLEWALK
Interreg Europe

Sharing best practices and experience on data collecting and processing and involvement of users in order to improve planning of cycling and walking

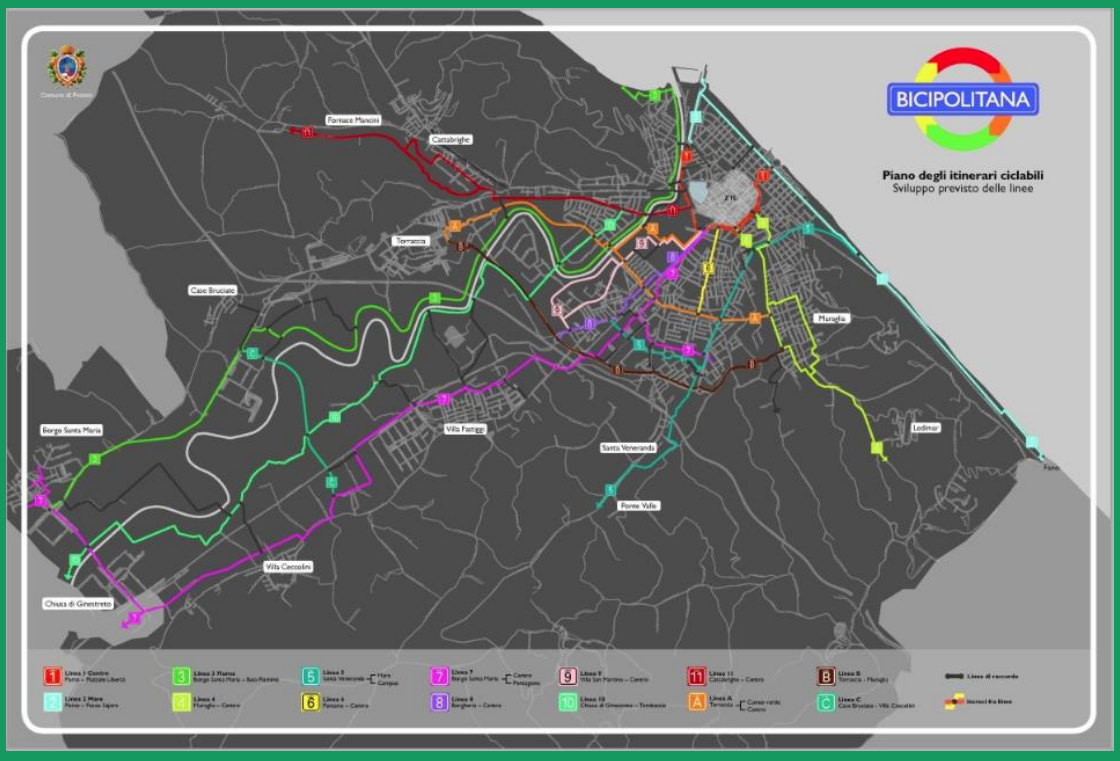
The Interreg Europe project CYCLEWALK will support the shift from car usage to active transport modes by improving knowledge among policy makers about cycling and walking infrastructures. Partners recognise that infrastructure is key to promote active transport, but also that approaches and best practices vary from region to region, and identifying the most appropriate solution can be a challenge. Many different technical options exist, and planners or builders in charge of new infrastructure may lack specific knowledge.

To solve this, CYCLEWALK will create criteria for selecting appropriate walking and cycling infrastructures, taking into account the specific local context and use. This criteria will be based upon data collected about target users, urban features and technical options. The project has employed the expert help of the Urban Cycling Institute, University of Amsterdam who are advisory partner. They will assist in the creation of action plans in six the participating authorities of the Oradea Metropolitan Area (Romania), the Municipality of Olbia (Italy), the Municipalities of Gorizia, Nova Gorica and Šempeter Vrtojba (cross-border, Slovenia and Italy), the Region of Burgenland (Austria), the Region of Sardinia (Italy) and the City of Vilnius (Lithuania).

Click here to find out more about this project.

GOOD PRACTICE: Bicipolitana Pesaro

A common difficulty for cyclists is the unexpected ending of a cycle path, forcing them to dismount, or join the stream of other vehicles on the road. More than just an annoyance, this can be potentially dangerous and may be enough to put people off cycling. The city of Pesaro (Italy) has solved this by planning and introducing a comprehensive cycle paths network, comprising of 87km of cycle lanes.



The City created fourteen lines crossing the city; the primary network connects the suburban neighbourhoods with the city centre, enabling easy access for commuters as well as leisure visitors, whilst the secondary network links the primary network with main points of interest and services in the suburban neighbourhoods. Key to the success of the network is the branding, which is reminiscent of a subway system, with different colours for each line. An evaluation of the system found a 50% increase in cyclists in the city within two years of launching the Bicipolitana network. Pesaro now has one of the highest modal shares of cycling in all of Italy, at 28%.

Click here to find out more about this practice.

Safety concerns

Safety concerns – both real and perceived – can be a strong reason for people to eschew active transport modes.

As the number of cyclists and pedestrians increases their safety improves due to the 'safety in numbers' effect. Cycling injury rates tend to fall as levels of cycling increase – possibly because motorists have increased awareness of other road users. This means that any policy that increases the modal share of active transport will also contribute to a safer experience for users. In general, environments with more and better infrastructure for cyclists and pedestrians are considered to be safer. Bike paths and separate facilities are also perceived as safer and may help encourage less confident cyclists to take to the road. Adequate street lighting is a relevant safety consideration for pedestrians, as are smooth pavements. Education and training – for all road users – is also important to promote safe mobility.

School Chance
Interreg Europe

GOOD PRACTICE: Cycling exam - Cycle training in real traffic situation

Promoting alternative behaviours to children and parents is central to school active mobility. Though cycling is very commonplace in the Netherlands, concerns about road safety may still make parents wary of allowing their child to bike to school. To address this, the City of Utrecht hosts an annual 'Traffic Exam', to test students' road safety in a real world setting. The exam consists of a theoretical and practical part and is aimed primarily at 8-12 year olds. It is organised by the Safe Traffic Organisation in the Netherlands (VVN). The course has a success rate of 94%, and helps to improve practical skills as well as confidence: that of both children and parents. The exam has resulted in a 10% increase in children allowed to travel independently by bike to school.

Click here to find out more about the Cycling Exam good practice

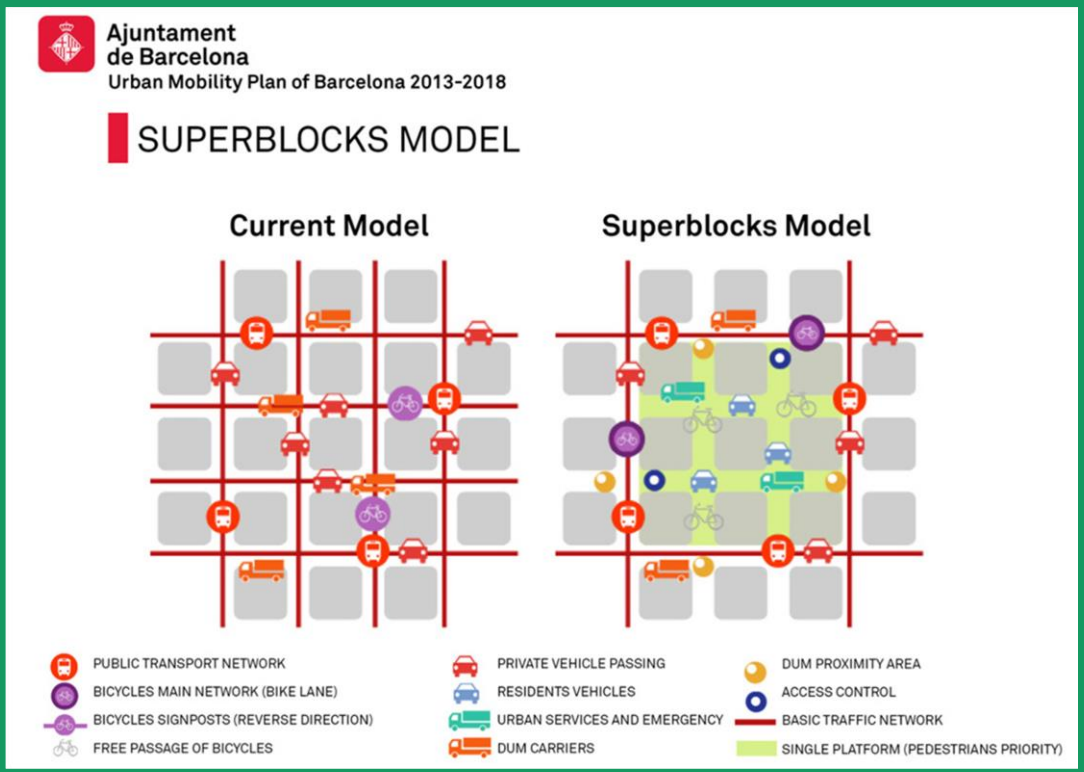
Spatial planning

Most regions in Europe have engaged in car-centric planning for much of the last century. This has encouraged urban sprawl and resulted in towns and cities which are most conveniently navigated by car. These issues can be exacerbated by the fact that town planning and mobility are often the responsibility of different departments with different priorities.

GOOD PRACTICE: Application of the first Superblock

Like many large European cities, Barcelona faces significant challenges in terms of air pollution and traffic congestion. Private vehicles occupy a vast amount of the urban area, squeezing public and green spaces. In order to liberate some streets from motorised traffic, the City of Barcelona has created a number of 'Superblocks' where pedestrians and cyclists are prioritised.

The plan originated when Barcelona redesigned its bus routes, moving them onto larger roads. They also located their bike-sharing scheme on these same arteries. This created the possibility to limit traffic in the adjoining and connecting streets. The streets within the superblocks still allow local traffic (cars and deliveries), but their speed is limited to 10 km/h. Where possible parking spaces are moved off street and into garages or underground. Parking spaces have been replaced by trees or seating where locals can congregate, so this public space has been reclaimed. The measure has had a positive effect on air quality and noise pollution.



Click here to read more about this practice.

Switching to community scale urban planning – locating shops, jobs and schools within walking distance of where people live – would make active transport far more likely.

Many urban areas have taken action to reduce the dominance of the car, for example by introducing car-free zones, and the superblock model has great potential. Softer measures that make car use less attractive will also serve to increase the competitiveness of active (and public) transport modes. Measures such as limited car parking, traffic calming and lower speed limits can reduce the overall convenience of car use, while at the same time making spaces safer and more attractive for pedestrians and cyclists.

School Chance
Interreg Europe

School Mobility Challenge in Regional Policies

Journeys to and from schools account for around 15% of road traffic in urban areas. The Interreg Europe project School Chance aims to reduce this figure by developing policies that support cleaner school mobility options, including active transport. Partners will identify innovative and coordinated ways to systematically address the four most pressing challenges in the development and implementation of school mobility policies: information, education, promotion, infrastructure. The result will be an integrated set of tools to incorporate school mobility strategies at regional level.

Click here to find out more about the School Chance project

Promoting multi-modal transport

Active transport and public transport are intrinsically linked as most journeys by public transport also involve some form of active travel – walking or cycling to the bus stop, train station, etc. On the flip side, car users tend to move much less. A UK study of commuters found that those travelling by bus walked more than four times further than those travelling by car. An average car journey involved a 0.3 km walk compared to 1.3 km for bus users.

Therefore promotion of, and investment in, public transport is likely to lead to an increase in the modal share of active transport. Regions and local authorities should consider this interconnectivity within their mobility planning, and during the development of Sustainable Urban Mobility Plans (SUMPs) – see also our policy brief on SUMPs.

GOOD PRACTICE: The Helsinki transport planning principle

Like many urban areas, the Helsinki metropolitan region is experiencing rapid population growth requiring very efficient mobility strategies to ensure the smooth movement of increasing numbers of people and goods in the built-up city centre. The objectives and policies of Helsinki's transport system are defined in the Helsinki Transport Development Programme. Recognising that walking, cycling and public transport are the most space efficient means of transport, these modes are formally prioritised within the programme. The general principle of transport planning is to serve the needs of walking first, then cycling, public transport, freight transport and passenger cars, in that order.

The creation of such a planning principle was a high level decision taken by political leaders in Helsinki. It now forms the foundation for all land use and transport planning in the city, and is binding on all departments. Measures implemented following the introduction of the principle include the new public bike sharing system, launched in 2016, and the procurement of electric trams and buses.

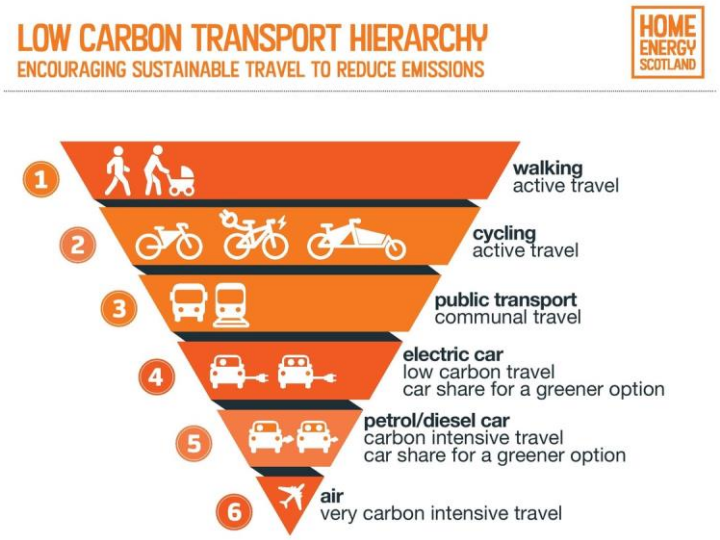
Click here to find out more about this practice.

Recommendations

- Adequate infrastructure such as separated bike lanes and pedestrian crossings are essential to make active transport a convenient and comfortable choice for citizens, including maintenance and cleanliness. To help authorities with infrastructure planning, the CYCLEWALK project is defining criteria to select the most appropriate technical options based on local context and use. These criteria should be examined; the Policy Learning Platform will promote them when they are available.
- Infrastructure should be well connected to increase usability. City or regional level planning can ensure infrastructure links people's homes, work and other places of interest. The Bicipolitana Pesaro good practice shows a successful city level plan for bike path networks.
- Safety is a key concern for citizens when it comes to active transport and must be addressed. Certain types of road infrastructure can improve safety for pedestrians and cyclists. As shown in the Cycling exam good practice, education and training can also make cyclists act and feel safer on the road.
- Changes to urban planning can encourage active transport. In the long term, community scale urban design can reduce people's travel needs and bring about a shift

to active transport. More immediate changes, such as the pedestrianisation of urban areas – as is the case in the Superblocks good practice – can also make active transport more attractive.

- Promotion of active transport should be done within an overall regional or city level mobility strategy, bearing in mind the role of multi-modal transport. Most journeys by public transport also involve some form of active travel, so these modes should be considered together.
- Communication campaigns should focus on all of the benefits of active transport; not only its low-carbon aspects, but also its positive impacts on health, and inclusivity, as low-cost transport options.
- Regions and cities committed to increasing active transport, should prioritise pedestrians and cyclists within their mobility strategy. Cities such as Helsinki have institutionalised this through the introduction of a hierarchical planning principle – prioritising pedestrians, then cyclists, public transport, freight transport and finally passenger cars.



Source: UK Energy Savings Trust

Sources, further information

- Active Living Research – Moving Toward Active Transportation: How Policies Can Encourage Walking and Bicycling (2016)
- CIVITAS - Cycle-friendly cities – How cities can stimulate the use of bicycles (2014)
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- FLOW project consortium - FLOW Impact Assessment Tool – Guideline (2016)
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- Winters, Meghan & Buehler, Ralph & Götschi, Thomas - Policies to Promote Active Travel: Evidence from Reviews of the Literature (2017)

#Mobility

#Cycling #Walking

#LowCarbon

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