



Urban Pathways



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Last mile urban deliveries with cargo cycles



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Project concept

Project aims

The Urban Pathways project helps delivering on the Paris Agreement and the NDCs in the context of the New Urban Agenda and the Sustainable Development Goals. It has established a facility in close cooperation with other organisations and networks active in this area to support national and local governments to develop action plans and concrete implementation measures to boost low-carbon urban development. This builds on UN-Habitat's role as "a focal point on sustainable urbanisation and human settlements including in the implementation and follow-up and review of the New Urban Agenda". The project develops national action plans and local implementation concepts in key emerging economies with a high mitigation potential. The local implementation concepts are being developed into bankable projects, focusing on the access to urban basic services to create a direct link between climate change mitigation and sustainable development goals.

The project follows a structured approach to boost Low Carbon Plans for urban mobility, energy and waste management services that deliver on the Paris Agreement and the New Urban Agenda. The project works on concrete steps towards a maximum impact with regards to the contribution of urban basic services (mobility, energy and waste management) in cities to global climate change mitigation efforts and sustainable and inclusive urban development. This project makes an active contribution to achieve global climate change targets to a 1.5°C stabilisation pathway by unlocking the global emission reduction potential of urban energy, transport and resource sectors. The project will contribute to a direct emission reduction in the pilot and outreach countries, which will trigger a longer term emission reduction with the aim to replicate this regionally and globally to make a substantial contribution to the overall emission reduction potential.

This project implements integrated urban services solutions as proposed in the New Urban Agenda providing access to jobs and public services in urban areas, contributing to equality and social coherence and deliver on the Paris Agreement and the Sustainable Development Goals. This is the first dedicated implementation action oriented project, led by UN-Habitat to deliver on inclusive, low-carbon urban services. Securing sustainability and multiplier effect, the project aims to leverage domestic and international funding for the implementation projects that will follow from this initiative.

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In many cities with severe congestion, trucks and vans struggle to deliver goods into city centres. Using bicycles to deliver small packages and mail and tricycles for heavier goods can be a solution. Electric motors often assist these cargo-cycles, which ride on normal roads, bike lanes and if local regulations allow even in pedestrian areas.

In brief



Examples

Small cargo-cycle companies are emerging in many countries. Some companies have environmental and social objectives and work with public subsidies. Their main objective is to cut emissions and employ young and socially excluded people. For others, efficiency is the key objective, with cargo-cycles providing an opportunity to avoid congestion and use routes that vans cannot.

Services provided by cargo-cycle companies range from distributing parcels to delivering goods from large stores to homes. Some companies replace diesel vans that make direct deliveries from a suburban depot, and instead take goods to a small consolidation centre before dispatching them to the final customer with a fleet of electric cargo-cycles.

Examples Measures



Results

Cargo-cycles have clear environmental advantages: they cut pollution, greenhouse gas emissions and noise; improve safety; and sometimes ease congestion. There is also a benefit to the local economy as cargo-cycle companies create jobs. Cargo-cycles can go where small vans and other light-commercial vehicles cannot, such as city centres reserved for pedestrians and tourist areas, and into other areas where diesel vans are restricted.

In Copacabana, Rio de Janeiro (Brazil) the Associação Transporte Ativo (Active Transport Association) assessed the activity of the many cargo-cycle operators and concluded that they make a positive contribution to the creation of local jobs.

Cargo-cycles need to have access to the road network, and bus and bicycle lanes to operate effectively. The use of cargo-cycles generally requires one or several depots in the city centre for transferring goods from larger trucks from where the cargo cycles then take over the last mile of distribution. However, these terminals can be relatively costly and distribution requires logistical planning.

Results

Financial Considerations



From a technical perspective, use of electric propulsion or support technologies involves issues related to the battery, such as chemical (aqueous sulphuric acid), the risk of the release of hydrogen during loading, and manual handling and institutions. For example, in San Sebastian (Spain), cargo-cycle company Txita and the municipality cooperated with an institute of logistics, a university, and the city's public transport managing authority to set up and manage an initiative, which included a freight consolidation centre and clean vehicles for last-mile distribution.

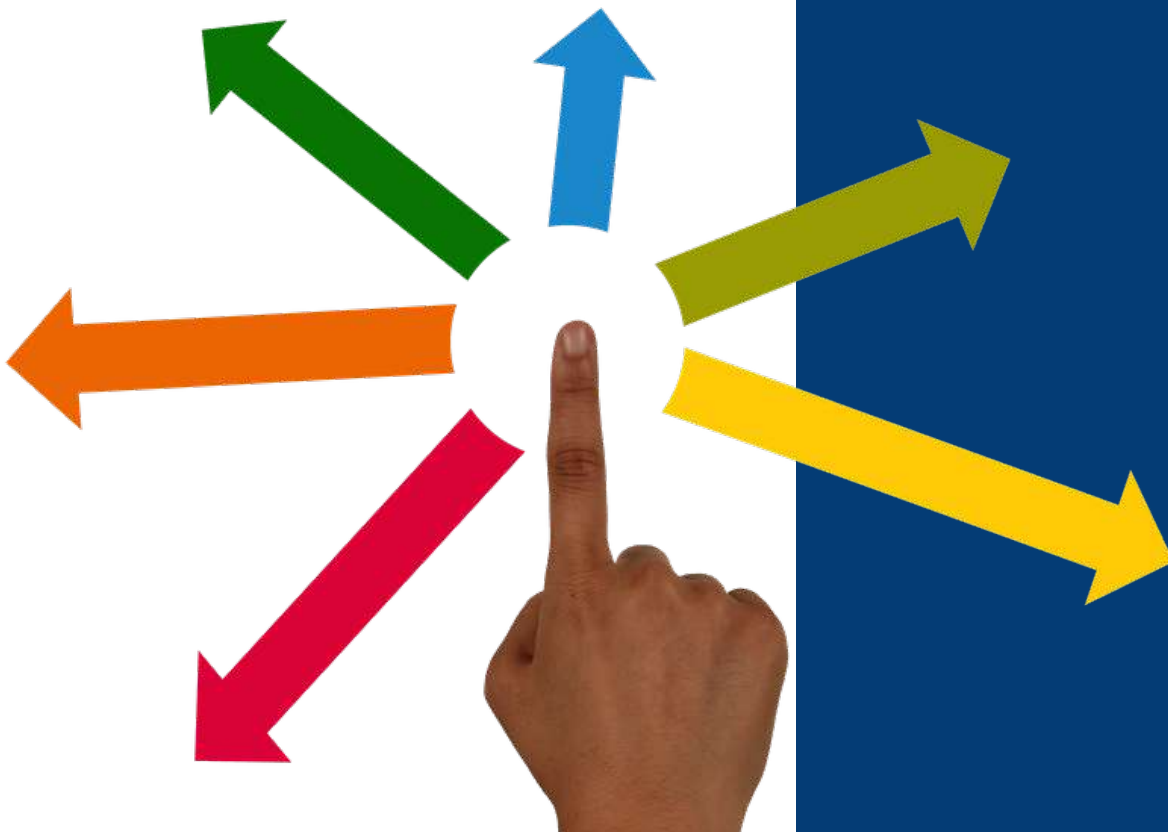
Technical Considerations



Transferability

Many cities in Europe and around the world have been using cargo-cycles. As last-mile delivery vehicles, they are especially effective in dense and congested major city centres. Several cargo-cycle companies are planning to develop their activity in other cities. For example, La Petite Reine in Paris (France) has already exported its tricycles and Txita has already established its service in other Spanish cities, such as VanaPedal in Barcelona.

Transferability



Context

The Green Link (TGL), established in 2009, is a company that delivers parcels in central Paris using a fleet of battery-electric vehicles. Before subcontracting last-mile deliveries to TGL, clients were either delivering the goods in central Paris themselves or using a different subcontractor which used diesel vans from the client's depots, located in suburban areas and which had to travel on congested main access routes and on the delivery round trip within the city centre.

Case Study: The Green Link PARIS



In action

TGL operates three depots in Paris which are supplied outside rush hours either by truck and/or boat by TGL or by its customers. The parcels are consolidated in the hubs before being delivered by clean vehicles. The first parcels arrive at the depots early in the morning, between 07.00 and 09.30, brought in by trucks and vans belonging to the clients. The parcels are unloaded, sorted and then loaded onto TGL's clean vehicles. The TGL fleet consists of two small electric vans and 28 electric cycles. Some 60 part- and full-time drivers deliver the goods. Most deliveries start in the morning at around 09.00 and end in the early afternoon, usually before 15.00. A few evening rounds collect the parcels.

During the deliveries, TGL sends real-time information on the status of their orders to the clients. The main costs are on staff and renting the depots. New cargo cycles cost €7,000, while maintenance amounts to approx. €10 per working day. Other fixed costs include insurance, accounting and management.

In action



Results

At the end of 2013, TGL delivered 2,500 parcels per day. Its environmental profile (with virtually zero tail-pipe emissions) and the fact that it emits no air pollutants and produces little noise during deliveries are positive. Thanks to its electric fleet, TGL delivers over 2,000 parcels daily and estimates that it has avoided emitting over 100 tonnes of CO₂ and consuming of 30,000 litres of diesel a year. A key barrier to growth is the limited availability and cost of suitable depot space in central Paris – something with which the municipality could help. The company's turnover has slightly decreased between 2014 and 2015 (down by 6%) after 5 years of growth, and the business is not yet profitable.

Results





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