



We tend to associate cable cars with mountains and skiing, rather than urban life and work, but they are gradually taking root in our cities. Just before this summer's Olympics, London launched the Emirates Air Line. Its 34 cars bridge the Thames between Greenwich and the Royal Docks, running 90 metres above the ground. Visitors to Barcelona can climb to the top of Montjuic hill in a gondola lift. Its counterpart in Koblenz spans the Rhine then rises to the Ehrenbreitstein fortress. Rio de Janeiro, New York, Portland, Algiers, Oporto, Bolzano: the list of cities equipped with a cable car is growing longer every day.

The most significant experiments were made in the 2000s by Medellin, Colombia, and Caracas, Venezuela. Cable cars, rethought as a means of mass transport, were clean, producing no carbon dioxide emissions directly, and ended the isolation of the poorest neighbourhoods. The concept has been such a success in Medellin that the city council is considering a fourth route.

France has so far lagged behind, despite being one of the first to test the idea. In 1934 Grenoble, in the French Alps, launched a cable car connecting the city centre to a hilltop fort across the river Isère. More recently several schemes have been floated but never completed. A project at Issy les Moulineaux, near Paris, came to grief because local residents did not like the idea of riders passing over their rooftops. But several new projects are now under way and the first ones should come online in 2015.

Cable transport is cost-effective, environmentally friendly, safe and requires little infrastructure. It is particularly suitable for crossing natural obstacles such as rivers or scaling hills, there being no need for expensive engineering work. Over an equivalent distance a cable link costs half as much as a tram line, and though no rival for underground railways in terms of capacity, some models can carry up to 8,000 passengers an hour.

Brest, in Brittany, will be the first to be "wired" in 2015. The local council chose this solution to cross the river Penfeld and connect the city centre to the Plateau des Capucins. The 12-hectare site used to belong to the navy and was closed to the public. Now city property, the former arsenal is being converted into an eco-neighbourhood with homes, shops, cultural amenities and business premises.

The local council originally thought of building a footbridge, but the idea was dropped, mainly because of the clearance required for naval vessels passing underneath. The projected cable cars will carry 2,000 people an hour.

In Toulouse a cable-car service is due to open in 2017 connecting three strategic sites separated by the river Garonne and a hill: Oncopole, a cancer research centre, Rangueil hospital and Paul Sabatier University. The 2.6km route, which connects to the metro, will convey up to 7,000 passengers an hour. It will take only 10 minutes to travel from one centre to the next, whereas the same journey by car lasts almost an hour. At peak hours cable cars will run at 90-second intervals, and five to seven minutes apart the rest of the time.

"This is neither a gadget nor a tourist attraction; it is all about transport," says Joël Carreiras, a member of Toulouse town council and vice-president of the metropolitan council tasked with transport. "We either had to dig a tunnel, or go over the top, and we didn't have the necessary finance." The cable-car system, including three stops, is slated to cost €45m (\$58m).

In neither Toulouse nor Brest will the cars pass over private homes, a concern that is still one of the main issues holding back this type of transport, in addition to its visual impact.

A 5km link is under study in the Paris suburbs. Branching off from a metro line, it would connect Créteil to Villeneuve Saint Georges via Limeil Brévannes. The Paris Region Transit Authority (Stif) is set to publish the results of a feasibility study early next year.

"We are enclosed on all sides, trapped between several hills and the Seine, with several major road and rail routes to cross too, so it would be a suitable form of transport," says Marc Thiberville, vice-president of Val de Marne departmental council. "The cable car would take less than a quarter of an hour, whereas it currently takes half an hour by car and 45 minutes on the bus."

Grenoble is currently planning something on a much larger scale, in and outside the city. A cable car would cross part of the centre, spanning two rivers (Isère and Drac) and connecting three parallel tram lines. The council has started preparing compulsory purchase orders. "The metropolitan area has invested a great deal in its tram network and there are limits to how much more can be funded. So we need to find other forms of transport enabling us to interconnect existing train, tram and bus services," says Philippe de Longevialle, the city councillor in charge of planning.

Ultimately this route could be extended well beyond the city limits, climbing up to Chamrousse, a ski resort in the Belledonne range to the south, and to Villard de Lans, in the Vercors, farther west.

"The roads are congested and dangerous; commuters who drive down to Grenoble would be well advised to leave their cars at home," De Longevialle adds.

But the project has run into opposition. Homeowners are hostile and some local councils are worried property prices might soar. Unlike Medellin, people here are afraid the cable car might prove too much of a success.