Sky's the limit for public transit

• Is this the future of urban transportation? SkyCab is an environmentally-friendly, intelligent and automatic personal rapid transit (PRT) system being developed by a network of Swedish industry, academia and the public sector.

The first PRT test track in Sweden has been built in the city of Hofors, around €30m has been invested in PRT in the country, and SkyCab is now attracting international attention.

The all-weather system runs four to five metres above the ground and each SkyCab has room for four passengers. With no timetable restrictions, passengers are whisked in their own vehicle to their desired station at speeds of around 40kmh, reducing urban travelling times by about half.

A study by the Royal Instititute of Technology in Stockholm (KTH) has shown that SkyCab's emissions of CO_2 are 50 times lower than those of a car, and if the system is powered by "green" electricity, 1,800 times lower. SkyCab uses one quarter of the energy per person/kilometre as a car, and 50 per cent compared with a bus,

Åke Åredal, managing director of SkyCab, who came up with the concept while working on an idea for a theme park in the Mediterranean, says: "We are not a car, we are not a train, we are something in between. There are five goals we are trying to achieve: attractiveness, availability, security (technical and for passengers), environmental friendliness, and cost efficiency."

Åredal explains that a person wishing to travel with SkyCab pushes a button while approaching a station. When they get there, the SkyCab is ready and preprogrammed to take them to their destination. "The vehicle is waiting for you at the station, you get in, you confirm your trip, then you move off," he says.

SkyCab is part of a research, development and demonstration project run by Banverket, the authority responsible for rail travel in Sweden, called Gröna Tåget, or the Green Train. "Trains runs from A to B, but you need a smaller feeder system to transport passengers to and from the rail station," says Åredal. "When you arrive at station B you jump into a smaller vehicle, a SkyCab, and travel further in the local community. Banverket sees that SkyCab will increase the demand for railway travel."

Åredal says SkyCab complements the railway network and increases availability for travellers around railway stations. "SkyCab is also a potential communication solution for both communications-intensive areas like airports and universities, and smaller areas with fewer possibilities for public transit."

SkyCab, which is part of the Swedish government's global Sustainable City programme, is one of many PRT projects under way around the world, but is being seen as one of the more feasible solutions. Two delegations from China have visited Hofors on a fact-finding mission, and SkyCab representatives have made a return visit as part of a Swedish state delegation to China.

Part of the plan for a SkyCab network near Stockholm's Arlanda Airport includes a stunning design for an integrated railway and SkyCab station (pictured). Åredal says that when he gave the designers their brief, he set the bar high. "I told them it should be in the same class as the Sydney Opera House," he says. "I wanted an unforgettable design." It is a result of participation in Sweden's 2005 Design Year, initiated by the government, and the project was shortlisted for the Design Year prize.

Åredal says SkyCab is working with a dozen Swedish universities, and has the support of a complete industrial group to supply the system. "We have very good market and business conditions to go further in the process demonstrating the SkyCab system," he says.

Clockwise, from top: the planned SkyCab Integration Centre in Hofors; map of the proposed SkyCab network for Stockholm's Arlanda Airport, the international code for which is ARN - arn is also old Swedish for "eagle"; an artist's impression of SkyCab by the Turning Torso in Malmö; "The Eagle", the design vision for a combined railway/ SkyCab station at Märsta-Arlanda

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