Study Mission Investigates Transit's Role in Addressing Global Climate Change

Passenger Transport – September 22, 2008 - Kathryn Harrington-Hughes

A team of managers from public transportation agencies throughout the U.S. recently traveled to Europe to investigate ways that public transport agencies are addressing issues related to global climate change. The study mission was part of the International Transit Studies Program, sponsored by the Transit Cooperative Research Program.

The team—**led by Fred Hansen, general manager of Portland's Tri-County Metropolitan Transportation District of Oregon and chair of the APTA Sustainability Task Force**—met with representatives of public transport agencies, governmental agencies, and non-governmental organizations, such as community and green organizations, in Dublin, Ireland; Munich and Freiburg, Germany; Milan, Italy; and Bilbao, Spain.

"This study mission was particularly timely because communities throughout the U.S. are increasingly looking to public transportation as part of the solution to global warming," said Hansen. "We gained a much broader perspective, and what we learned will help us shape effective strategies and policies in this country."

The team learned that the Dublin region's strong economy has resulted in a large, unexpected growth in population and an increase in car ownership, putting tremendous pressure on the transportation system and the region's air quality.

Recognizing that a good public transportation network is crucial to making the city attractive to sought-after employees, the city's business community is a strong proponent of improvements to the transit network.

One innovation in the region is Quality Bus Corridors, a mixture of "real" bus lanes, designated by paint on the roadway, and "virtual" bus lanes that appear only at signalized intersections.

"The more congestion, the better the Quality Bus Corridors work," said John Ryan of Dublin Bus. "People will choose the faster mode." He also credited changes in parking policy for making transit a more attractive option to commuters.

Marian Wilson, technical director, policy and planning, Dublin Transportation Office, echoed Ryan's comment, saying, "There's no sense taking a horse to town if you have no place to stable it."

Transit ridership has always been very high in Munich, but recently the public transport agency, MVG, began collaborating with Green Cities, an environmental organization, to encourage even more people to take transit. One such effort involves offering mobility management plans to new residents, so they learn right away about the ease and convenience of public transport in the city. A test project with 5,000 residents showed that the effort yielded a 7 percent increase in the number of people opting for public transit.

“Public transportation is seen as part of the solution to global climate change,” said Gunnar Heipp of Stadtwerke Munchen, the parent company of MVG, the transit operator.

Over the past several years, Heipp said, the city has focused on strengthening the relationship between land use and transportation. “When you have the right urban structure, public transport works,” he added.

Max Leupold of Green Cities called changes in Munich’s parking policies, which have made on-street parking more expensive than off-street lots, “the most important push for public transport in the past seven years.”

Freiburg, a town of 200,000 on the edge of the Black Forest, is known as an “eco-city,” having received numerous awards for its innovative work in sustainable development. Even though 80 percent of the city was destroyed in World War II, the trams never stopped running.

Public transport is at the heart of the city’s transportation policy. Eighty percent of the town’s citizens are within walking distance of a tram stop. Twenty percent of all journeys take place on public transportation; 28 percent are by bike, 24 percent each by walking and by car, and 4 percent by carpool.

“Our transportation policy was developed to keep the city attractive and livable so that people would not want to leave,” said Jan Maurer of the city’s Bureau of Transport Planning. The city has set an ambitious goal of cutting its carbon dioxide emissions by 40 percent by 2030.

Milan has been much in the news lately as a result of its Ecopass system, which is aimed at improving air quality in the city. Since January 2008, cameras placed at 43 locations throughout the city record the license plates of all vehicles entering the city. The government uses license records to identify the type of vehicle and levy a charge on the owner; the more polluting the vehicle, the higher the cost. Ecopass is thus a pollution charge, which is not to be confused with London’s congestion charge, a city representative explained.

The city council estimates that Milan will collect 24 million euros annually from the Ecopass system. Those funds are earmarked for improvements to the public transportation system.

The results to date are very encouraging, according to the city’s Mobility and Transport Sector staff. In the first four months of operation, the Ecopass program has led to:
A 22 percent reduction in fine particulate matter;
A 15 percent decline in the number of vehicles in the city center and a reduction of 8 to 9 percent in the number of vehicles just outside the city center;
A 7 percent increase in the speed of buses because of less traffic; and
A 13 percent increase in subway ridership.

To accommodate the expected growth in transit ridership, Milan is investing one billion euros in three new subway lines, and added 20 kilometers of dedicated bus lanes last year.

Bilbao is a post-industrial city that, two decades ago, had high unemployment, a very polluted river, and large brownfield areas along the river. A terrible flood in 1983 became a catalyst for change.

“The city understood that a key part of urban regeneration involved integrating the transport infrastructure,” said Juan Alvaro Azcarate, development planning director for Bilbao Ria 2000. Today, the city boasts both a new Metro and a new tram system.

The Metro received financing from the Basque regional government, city government, state government, and European Union. The first stations opened in 1995, and the system will be complete by 2013.

Metro Bilbao aggressively markets its services, using humor in many of its ads. “The car industry presents itself as very glamorous,” said Susana Palomino, marketing director for Metro Bilbao, “and public transport must be as glamorous to compete.” A third of Metro’s customers have two cars at home. Another benefit of the system is that riders can bring bikes, surfboards, and other large items on board with them—at no charge.

Bilbao’s modern tram system, operated by Euskotren, entered operation in December 2002. It carries three million passengers each year on its 5-km stretch through the downtown area.

Planning is now underway for high-speed train service between Bilbao and San Sebastian and between Bilbao and Madrid. Amaia Etxebarria, head of Euskotren’s environment department, explained that the push for new tram and train service is being driven by two goals: to improve the environment and to reduce congestion.

TCRP will publish a detailed report from the mission later this year, and it will be available online.

This was the 28th study mission sponsored by ITSP, conducted by the Eno Transportation Foundation under contract with TCRP. Karen King, chief executive officer of the Golden Empire Transit District in Bakersfield, CA, will head the next ITSP mission, which will visit Australia in October to study how agencies are balancing system expansions with the need for infrastructure reinvestment.