PROJECT

# CYBERMOVE

# Cybernetic Transport Systems for the cities of tomorrow

**Funding:** European (5th RTD Framework Programme)

**Duration:** Dec 2001 - Nov 2004

**Status:** Complete with results

CORDIS RCN : 59913

## Background & policy context:

Anyville, like numerous European cities faces numerous challenges associated with the use of private vehicles. Problems include road congestion, energy expenditure, noise and pollution, all of which degrade the quality of urban life. These, in turn, by diminishing the attractiveness of living and working at the city centre contribute to the development of unsustainable suburbs.

Nevertheless, there is an increasing awareness that technology can contribute to a sustainable development of our European Cities. This should go through the adoption of a global approach, based on sociological, economical, environmental parameters. This way, novel intelligent transport systems could be implemented, which would alleviate the above-mentioned problems.

## Objectives:

The goals of the CyberMove project are to improve the attractiveness and quality of life in Anyville by reducing the use and the parking needs of traditional cars. This will be achieved by new transportation systems based on cybercars as a complement to public mass transportation. Cybercars offer a cleaner and safer transportation mode available to everyone including people who cannot (or should not) drive for a level of service better than with private cars (door to door, individual, on-demand transportation).

CyberMove's aim is to create a new transportation option for city authorities to move towards sustainability and increase the attractiveness of city centres.

While the new technologies for vehicles and infrastructure development start in the framework of Intelligent Vehicle Systems (an IST key action), the CyberCars consortium (www.cybercars.org) now launches CyberMove in the framework of the key action "City of Tomorrow and Cultural Heritage" of EESD (Energy, Environment and Sustainable Development). The CyberMove approach is to demonstrate new technologies in several European Cities, with the aim of addressing a broad range of barriers such as : technology confidence, customs, landscape scenery, user-friendliness, regulations,.. etc.

## Methodology:

CyberMove is a 3 year project, launched on December 1, 2001. It starts with an analysis of user needs, a definition of operating scenarios and a pre-design phase. The first planned milestone is the selection of sites in the 12 cities which have officially expressed their interests. The second milestone consists of guidelines for safety design in those selected cities. A design review is the last milestone before the Mid Term Assessment of the project, which will clarify demonstration plan and budget. Demonstrations are expected during the project in at least 3 European sites.

CyberMove will be actively involved in clustering activity of the 4.4.2. Key Action of the EESD Programme. This cluster will widen the scope of individual projects, ensuring better consistency and co-ordination between the related projects, researchers and stakeholders, increase the awareness of new and emerging scientific trends and finally encourage the emergence of integrated solutions.

## Parent Programmes:

FP5-GROWTH KA2 - Sustainable Mobility and Intermodality

**Institute type:** Public institution

**Institute name:** European Commission, Directorate-General for Energy and Transport (DG TREN)

**Funding type:** Public (EU)

## Partners:

Denmark:
RUF

France:
INRIA; Robot SA

Israel:
TRI

Italy:
FIAT; DITS

Portugal:
IPN/ISR

Switzerland:
GEA; CN Serpentine

The Netherlands:
FNS; YME; TNO

United Kingdom:
University of Bristol; RG

**Organisation:** INRIA Sophia Antipolis

**Address:** 2004 route des lucioles BP 93

**Zipcode:** 06904

**City:** Sophia Antipolis Cedex

**Contact country:** France

**Telephone:** (+33) 4 92 38 50 14

**Fax Number:** (+33) 4 92 38 76 43

## Key Results:

CyberMove Project demonstrated the effectiveness of Cybernetic Transport Systems (CTSs) in solving city mobility problems and proved that they have now reached high levels of reliability, safety and user friendliness. Depending on how it is designed a CTS can virtually accomplish any transport task: it can provide a park shuttle service for an historic city centre or a business park; it can be a feeder for the main public transport network or the only available transport service in a quarter or a village; it can serve students and personnel in a campus; and it can even be a city wide transport system. For each of these services CyberMove experimented, tested or simulated different design solutions and can now provide, depending on them, figures on performances and costs.

## Technical Implications

CTS can be most successfully employed for two short distance transport services: as feeders for the main public transport network and as park shuttles linking car-parks to one or many destinations. CTSs provide better transport services, if they are designed so, than low frequency buses but interfacing a CTS with a low frequency bus line would waste the CTS benefits in terms of its attractiveness on the users. The service best accomplished by long distance CTSs is the city wide service. CTSs can provide a more convenient transport service than metros and, sometimes, even than cars, but they need dedicated and fully segregated high speed infrastructures.

## Policy implications

CTS is usually socio-economically viable and the community would benefit in its installation. CTS installation can be the big opportunity for a local administration to invert the European tendency to travel more and more by car even inside the cities.

**STRIA Roadmaps:** Smart mobility and services

**Transport mode:** Road transport
**Transport sectors:** Passenger transport
**Transport policies:** Digitalisation
**Geo-spatial type:** Urban