CATS

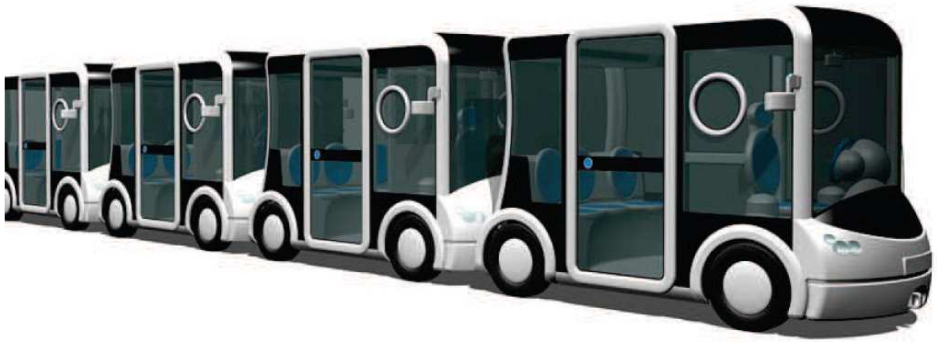
cityalternativetransportsystem

SST - "Ensuring Sustainable Urban Mobility"
New Transport and Mobility Concepts

European Commission

CATS' aim is the full development and experimentation of a new urban transport service based on a new generation of vehicles.

Its major innovation is the utilisation of a single type of vehicle for two different uses: individual use or semi collective transport.

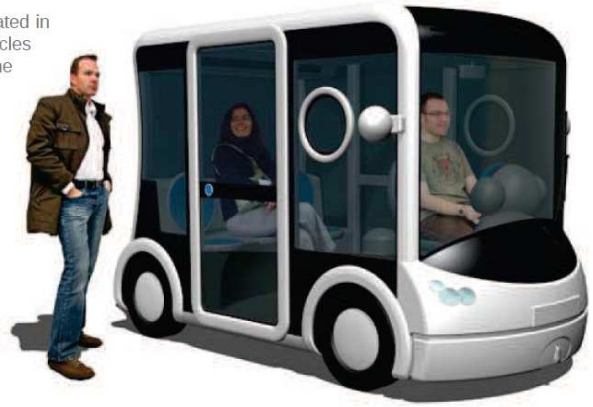


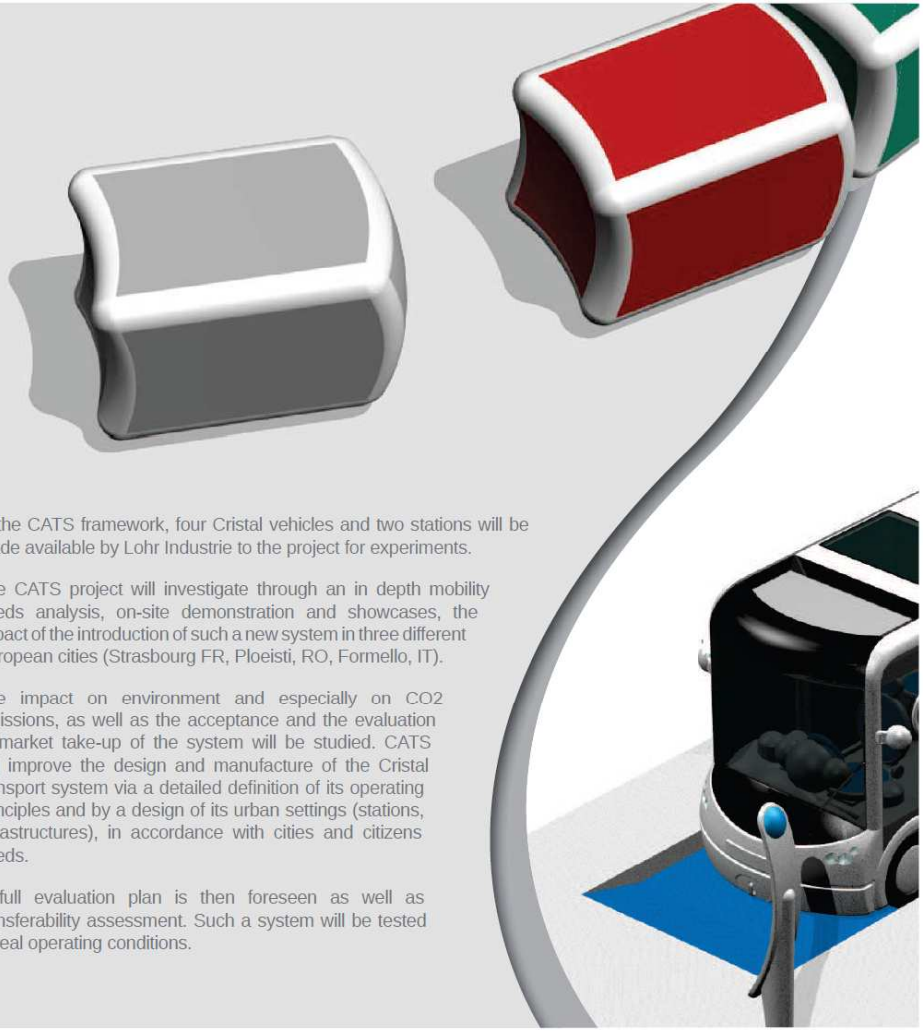
This new transport service is aimed at filling the gap between public mass transport and private individual vehicles.

It is based on two operating principles:

- **the self service concept** where small and clean urban vehicles are offered on a short term rental basis,
- **the flexible shuttle service** where a variable length of vehicles convoy, driven by a professional driver, operates at fixed hours along a line on a permanent basis or on a case by case basis.

Both of these principles are integrated in a single service (composed of vehicles and stations) called Cristal. The goal of this new service is a more efficient mobility in cities through a more balanced use of small clean vehicles and mass transport. This inclusive new transport system is well adapted to the needs of people with reduced mobility, young passengers and tourists.



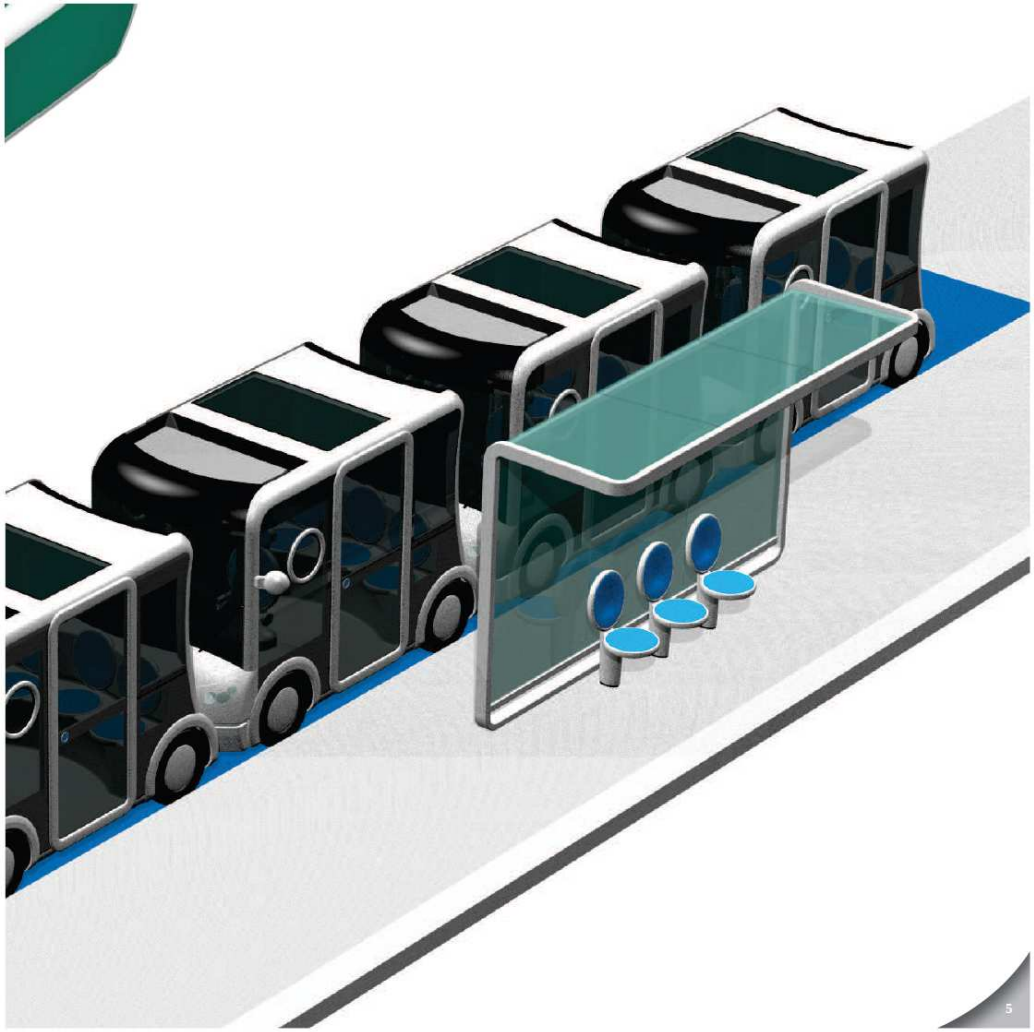


In the CATS framework, four Cristal vehicles and two stations will be made available by Lohr Industrie to the project for experiments.

The CATS project will investigate through an in depth mobility needs analysis, on-site demonstration and showcases, the impact of the introduction of such a new system in three different European cities (Strasbourg FR, Ploeisti, RO, Formello, IT).

The impact on environment and especially on CO2 emissions, as well as the acceptance and the evaluation of market take-up of the system will be studied. CATS will improve the design and manufacture of the Cristal transport system via a detailed definition of its operating principles and by a design of its urban settings (stations, infrastructures), in accordance with cities and citizens needs.

A full evaluation plan is then foreseen as well as transferability assessment. Such a system will be tested in real operating conditions.



Objectives

CATS, based on the CRISTAL technology and system design and demonstration, will develop an innovative strategy to test and introduce a clean urban transport system in three selected sites in the cities partners.

The project mainly focuses on the following issues:

- to demonstrate the complementarity of the Cristal system with the classic public transport network,
- to test all issues linked to station design and vehicle running in terms of urban integration, accessibility and environmental neutral effect of the system,
- to implement and to exploit services and innovative applications,
- to integrate end users perception in the design process through the use of a 3D simulator and a physical demonstrator.

Description of the work

The project is divided into 7 work packages (WP) of which 5 are technical work packages (WP1-5):

WP0 is dedicated to the management of the project. It deals with administrative and technical management of the project and also deals with quality control and ethical issues within it.

WP1 deals with the task of determining especially for Strasbourg the most appropriate operational site and also predefines the best implementation of the Cristal system.

WP3, **WP4** and **WP5** develop methodologies in order to optimise the best implementation of the Cristal system in the city based on WP1 recommendations.

WP2 designs the operating principles of the transportation system for the 2 modes which are self service and variable convoy of urban shuttle. Simulation tools are used to design and to evaluate the operating principles.

WP3 consists in designing the stations and in defining the services and the use of the stations, based on WP1 and WP2 results.

After obtaining the results by the 3D demonstration of static integration and 3D demonstration of operating system, the demonstration in real conditions, a showcase and exhibitions are performed in the WP4.

The impacts and the success of CATS project are evaluated by using different indicators in **WP5** and it also answers to the citizen's experiences of the system Cristal.

The objective of the **WP6** is to prepare and support the exploitation and dissemination of the results of the project by:

- providing the interface to the EU services and external actors,
- offering the strategic interface for the project with reference to the EC policy issues,
- widely disseminating project concept, developments and findings to all key actors in the field in an interactive way, integrating their feedback at key points of the specification, design, development and evaluation work.
- issuing exploitation plans for key project results.

Expected Results

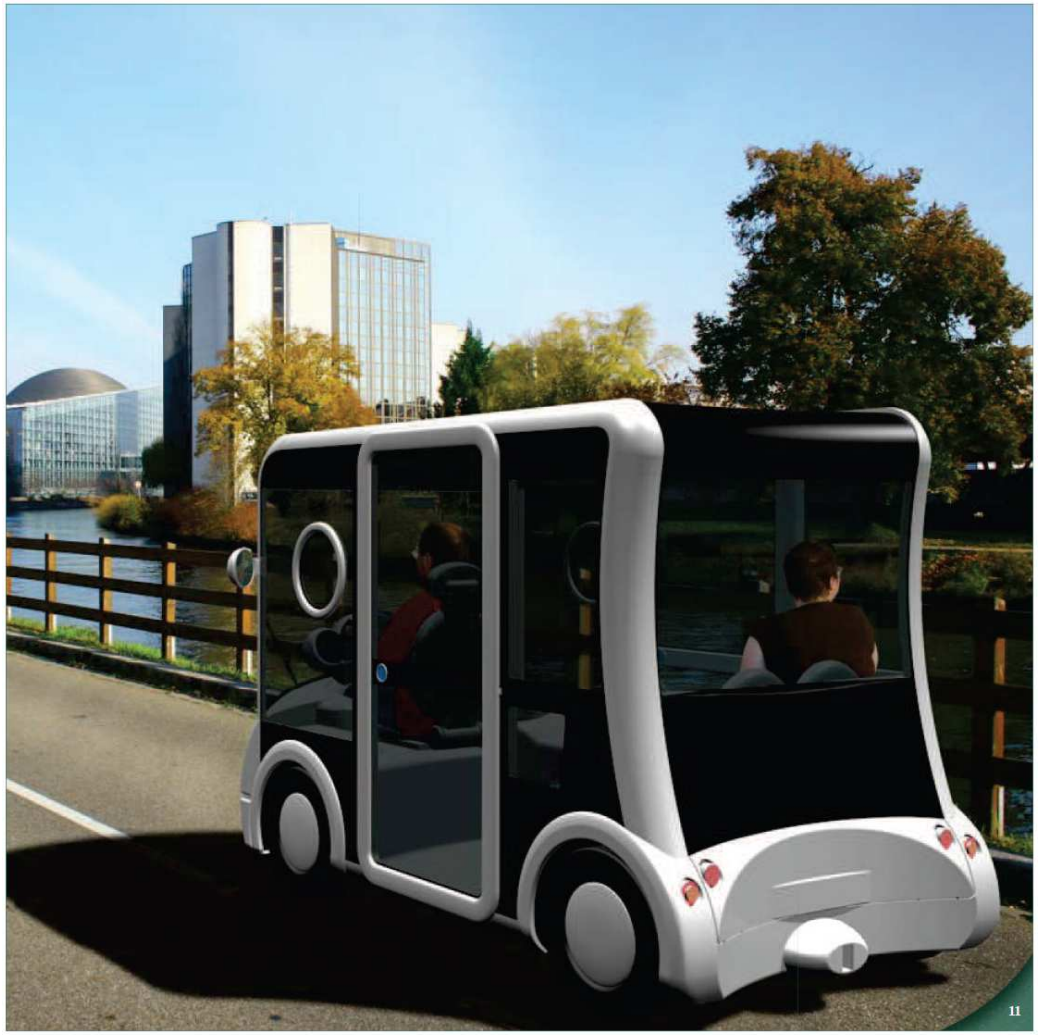
The results of the CATS Project will contribute mainly to the EU-27 and "zero accident" vision as well as to achieve significant improvement of efficiency of the urban transport systems. These, integrated with other new innovations in the field of Cybernetic Transportation Systems (CTS) intended to bring a radical change in urban transportation.

These environmental friendly systems have the feasible potential of improving the current situations drastically, by offering solutions to the problems encountered today. They will yield much more effective organisation in terms of urban mobility, congestion and air pollution, noise, CO2 emissions, accessibility and safety.

The result will be a higher quality of living and an enhanced integration with the spatial and societal developments.

In summary, the CATS Project is intended to yield the following impacts:

- drastic reduction of energy dependency, pollutants and carbon dioxide emissions,
- technological progress,
- improvement of the urban mobility offer with substantial gain of time and comfort for travel,
- improvement of the urban quality of life.



Contacts & Partners

Acronym: CATS

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cityalternativetransportsystem

Grant Agreement N°: 231341

Instrument: Collaborative Project
(Small of medium-scale focused research project)

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EU contribution: 2 970 245 €

Call: FP7-SST-2008-RTD-1

Starting date: 01/01/2010
Ending date: 31/12/2013

Duration: 48 months

Objective:
Ensuring Sustainable Urban Mobility

Research domain:
New Transport and Mobility Concepts

Website: www.cats-project.org

Coordinator:

LOHR Industrie
Mr Jean-François ARGENCE
29, rue du 14 juillet
67980 Hangenbieten
Email : jean-francois.argence@lohr.fr
Tel: +33 (0)3 88 38 98 46
Fax: +33 (0) 3 88 96 06 36

Vallotton - Chanard SA
rue du Bourg 28 - Case Postale 6326 - 1002 Lausanne - Switzerland
thierry.chanard@geapartners.ch

Communauté Urbaine de Strasbourg - France

Institut National de Recherche en Informatique et en Automatique - France

Technion - Israël Institute of Technology - Israël

Universita Degli Studi Di Roma La Sapenzia - Italy

Ecole Polytechnique Fédérale de Lausanne - Switzerland

Ploiesti City Hall - Romania

Agenzia Regionale Per La Mobilita Del Lazio - Italy

Europe Recherche Transport - France

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