



SIXTH FRAMEWORK PROGRAMME

# ***CityMobil***

Advanced Transport for the  
Urban Environment

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# *An Integrated Project in the 6th Framework Programme*

Thematic Priority 1.6:

Sustainable Development, Global Change and  
Ecosystems

Sub-Priority 1.6.2:

Sustainable Surface transport

Objective 1.6.2.1:

New technologies and concepts for all surface  
transport modes

# Background

- Mobility demands cause an ever increasing pressure on the urban arena.
- There is a need for innovative solutions to facilitate mobility
- Automated road transport may contribute to sustainability by a more efficient use of resources and space and increased transport safety

## ***Earlier research work results: barriers to innovative system diffusion***

- Legal:
  - certification/homologation and
  - responsibility attribution.
- Technological:
  - questions remain on important fields as obstacle detection and energy supply.
- Diffusion:
  - characteristics, benefits and costs of such systems are not known.
- Decision maker, and other actors, support:
  - to the success of these system strong “push” (unpopular) accompanying measures are often necessary,
  - involved stakeholder do not share interest for the successful implementation of the innovative systems
  - nobody wants to be the first to implement a new system.
- The *endowment effect*: we value more what we are already using.

# *How do we overcome such barriers?*

- With the CityMobil project we:
  - implement three lasting demonstrators which will receive certification and permanent homologation;
  - study a number of other applications and possible scenarios;
  - rise awareness by bringing showcases around;
  - show technology to be safe and reliable;
  - disseminate knowledge and expertise;
  - evaluate the outcomes of all these actions with a common approach and in the same framework.

# CityMobil Advanced Transport Systems

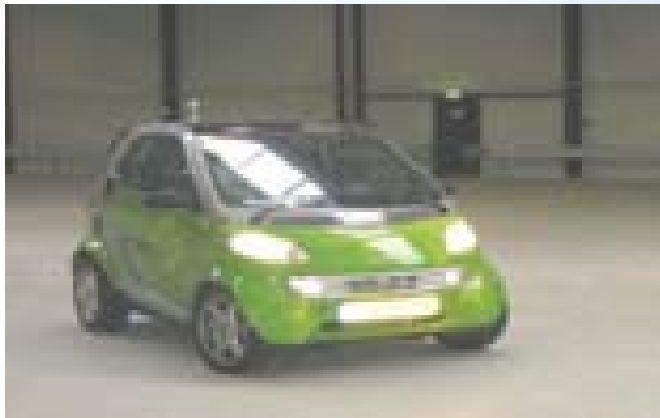
TOWARDS ADVANCED ROAD TRANSPORT FOR THE URBAN ENVIRONMENT



Cybercars



Advanced Buses



Advanced citycars



Personal Rapid transit

# *Demonstrations*



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- Heathrow
- Rome
- Castellón

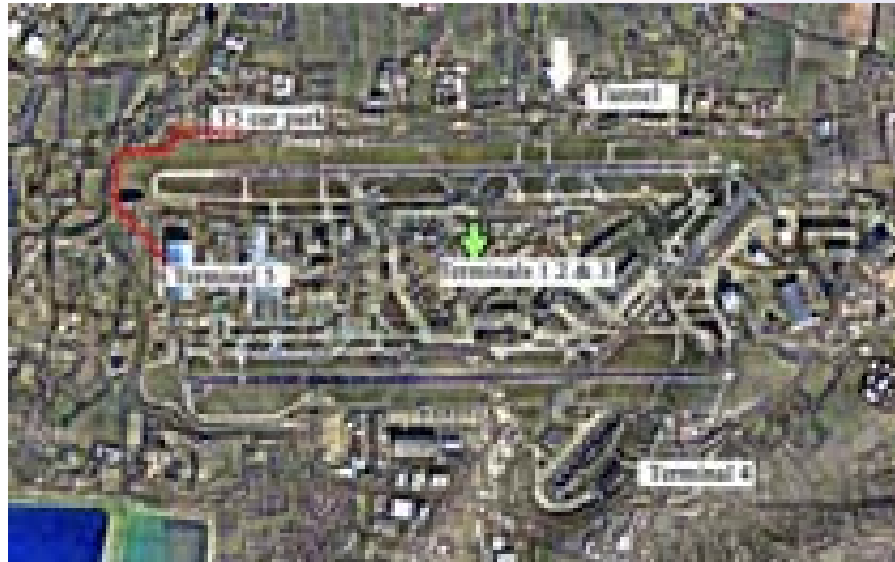


# Heathrow Demo (1/3): the overall picture



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A PRT system that connects a business car park with the new Terminal 5

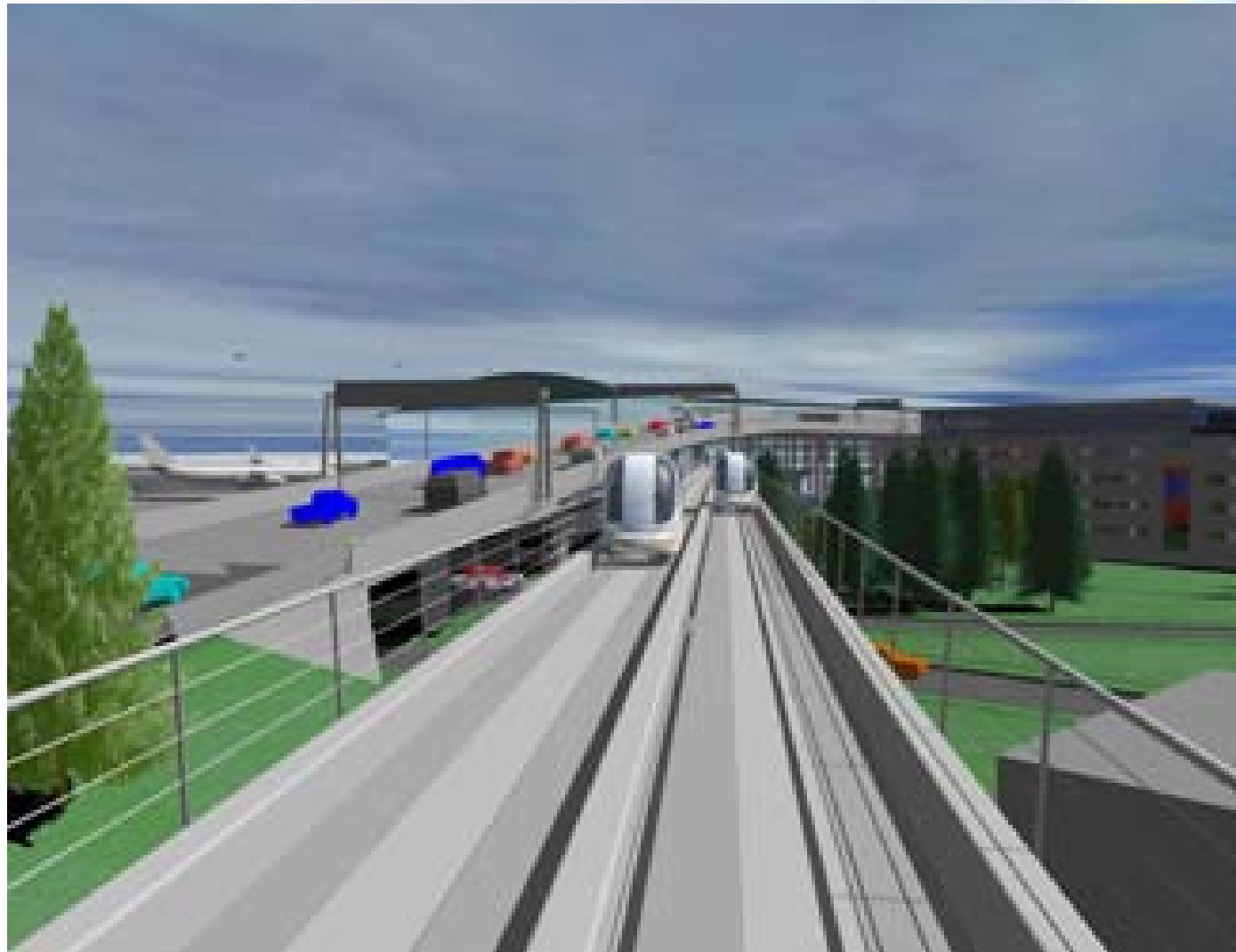


# Heathrow Demo (2/3): *how will it look like*



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# *Heathrow Demo (3/3): timing*

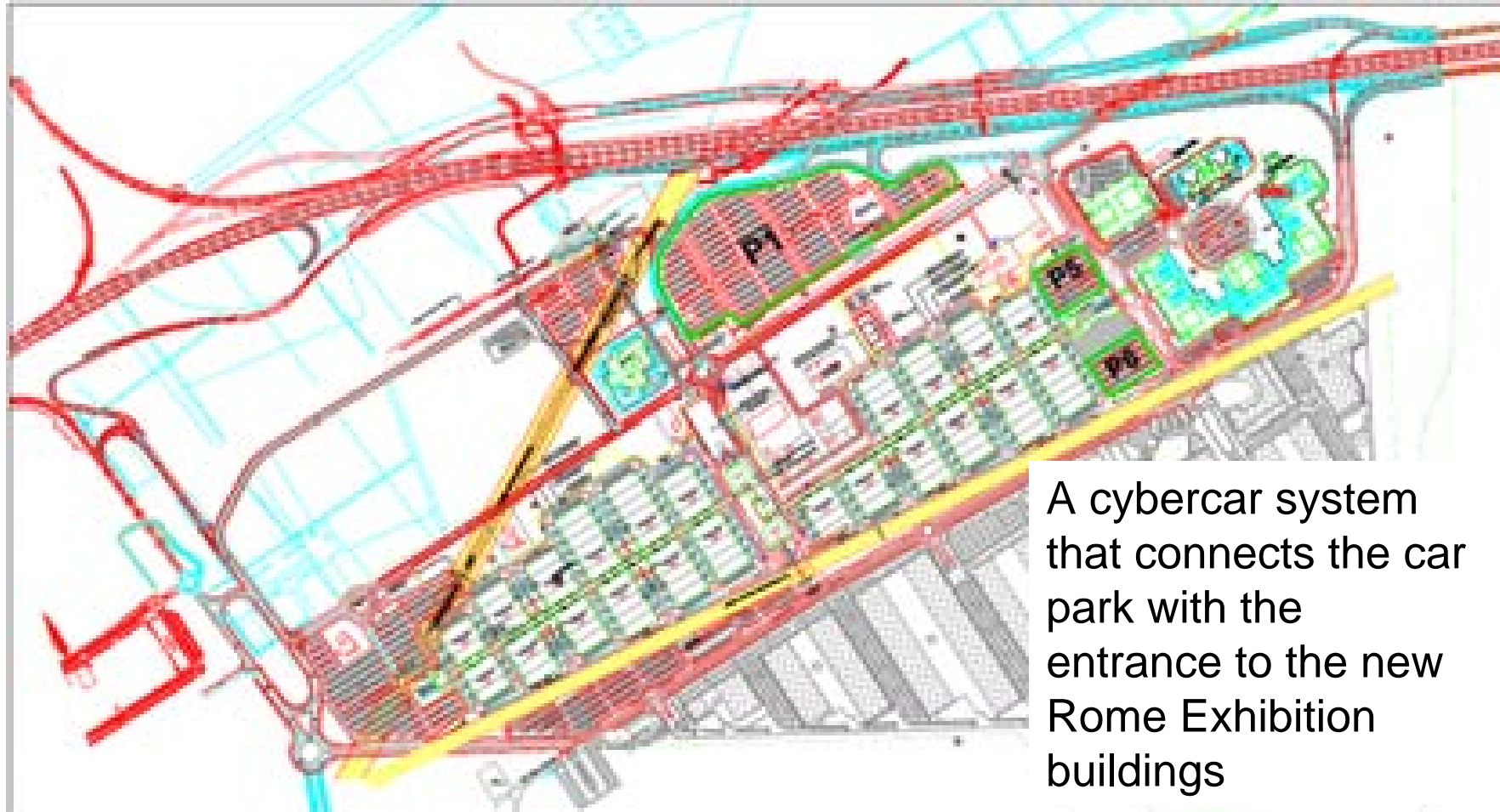


- Terminal 5 construction completed in September 2007
- Terminal 5 start of operations spring 2008
- PRT completion and opening to public spring 2009

# Rome Demo (1/3): the overall picture



TOWARDS ADVANCED ROAD TRANSPORT FOR THE URBAN ENVIRONMENT



A cybercar system that connects the car park with the entrance to the new Rome Exhibition buildings



## ***Rome Demo (2/3): the objectives***

- To improve visitors' accessibility to the building for people coming by car
- To eliminate the shuttle needed to serve the farthest car-slots
- To demonstrate the economic viability of automated systems as feeder transport service

## ***Rome Demo (3/3): timing***

- First 2 vehicles available:  
November 2008
- 4 more vehicles April 2010
- System fully operational April  
2010

# Castellón Demo (1/4): the overall picture



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An advanced bus system that connects the university, the city centre of Castellón and the coast



# Castellón Demo (2/4): a vehicle

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# Castellón Demo (3/4): the first stretch



# Castellón Demo (4/4): *timing*

- First vehicle available in March 2007 (done)
- Tests in Summer 2007 (done)
- First stretch should be ready in September (done)
  - University-Rio Seco
  - 6 stops (25m long, 3 m wide)
- Commercial use in October 2007 (academic year)

# *Reference Group Cities*

Almelo	Lausanne
Almere	Limeil-Brévannes
Cardiff	Milano
Clermont-Ferrand	Montbéliard
Daventry	Opole
Gateshead	Orvieto
Genova	Santa Margherita Ligure
Hyvinkää	Trondheim
Halver	Uppsala
Helmond	Valencia
La Rochelle	Vienna

# Showcases

- Cybercars showcases
  - Daventry
  - Hyvinkää
- Advanced city cars
  - Genova
  - La Rochelle

## *City studies*

- Modelling studies
  - Almere
  - Gateshead
  - Trondheim
  - Vienna
- Other city studies
  - Limeil-Brevannes

# *Examples of research issues*

- Obstacle detection and avoidance
- Energy supply
- Certification and liability
- Social security
- Human factors issues
- Parking solutions
- Fleet management
- Communication
- Multi modal transport

## *CityMobil expected results (1/2)*

Complete project:

- 3 operating demonstration projects
- Showcases and possible small demonstrations
- City study reports
- Reports on R&D topics
- Dissemination activities
- Exploitation plan

## *CityMobil expected results (2/2)*

- A much better understanding of the possibilities of automated transport systems in cities
- An improved acceptance of advanced transport systems among the public as well as among authorities
- Less legal, administrative, operational and technological barriers for the implementation of advanced urban transport systems

# *CityMobil first results (1/3): key message from scenario analysis*

Adoption of automated transport would require a fundamental shift in the users' mentality from asking:

**WHY SHOULD I BUY AN AUTOMATED CAR?**

to asking:

**WHY SHOULD WE USE AN AUTOMATED CAR?**

Increasing awareness of environmental and climate change problems and the need to change mobility habits in the urban environment may provide for this shift to happen.

## ***CityMobil first results (2/3): Daventry showcase outcomes***

- Open from 24.09.2007 to 05.10.2007
- 3 permanent vehicles (plus 2 other vehicles)
- Conference hosted on 26.09.2007 by the City Council with more than 200 attendants
- Coverage by BBC (news - live morning show - BBC world service, 60M audience reported by BBC), article in THE INDEPENDENT, local TV and 1st page on regional newspapers
- 9 school groups visited on week 1 (~180 children)
- 10-15 individual visitors daily

# CityMobil first results (3/3): Daventry showcase pictures





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***THANK YOU***

**For information  
CITYMOBIL Website:  
[www.citymobil-project.eu](http://www.citymobil-project.eu)**

# *An example of cybercar*

TOWARDS ADVANCED ROAD TRANSPORT FOR THE URBAN ENVIRONMENT



# *An example of advanced bus*

TOWARDS ADVANCED ROAD TRANSPORT FOR THE URBAN ENVIRONMENT



# *An example of advanced citycar*

