



Transport Research Arena Europe 2010

3rd edition  
Brussels, Belgium

7 - 10, June 2010

## *CITY MOVE: new concept for urban delivery vehicles*

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- *CityMove concept*
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# Research needs

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- **Urban freight distribution is still an open issue**  
in every governance agenda at local, regional, national and European level
- **Need to reduce its impact on city life**  
traffic, road occupancy, emissions, ...
- **City logistics involves several aspects**  
logistic models, vehicle technologies, ICT tools
- **Integrated approach as a solution**  
working on initiatives that gather all the stakeholders (logistic operators, OEMs, public authorities) and all aspects

# Starting point

## Partnership

OEMs (CRF, IVECO, Renault Trucks, ECA)  
Cities (IMPACTS, Lyon, Hanover, Barcelona)  
Delivery Operators (DHL, TNT)  
Research and technology providers (ALTRAN,  
Mizar, Fraunhofer, Univ of Westminster)

Coordinator : CRF

FP6 Priority 6.2 Sustainable Surface  
Transport

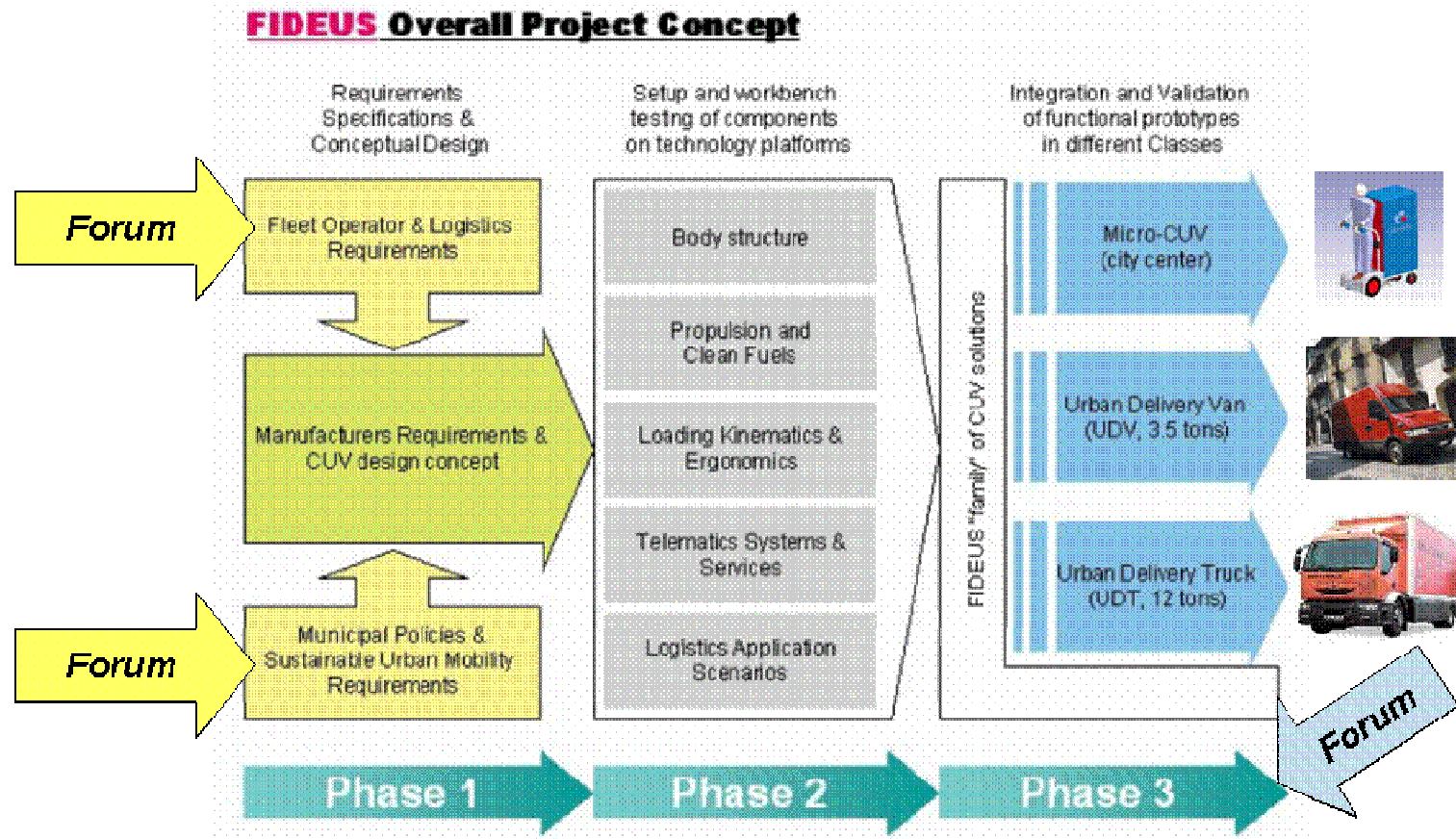
Duration of the project: three years

Start: May 1st 2005

End: April 30th 2008



# Fideus Concept and Results



## CityMove- CityLog

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- **One vision, two challenges**  
City logistics problems will be faced up through two parallel initiatives, focused on vehicle technologies (CityMove) and the overall delivery process (CityLog)
- **Complementarity...**  
The two projects will be fully autonomous and independent in achieving their expected results
- **...and synergy**  
Joint initiatives will be undertaken to share opportunities and methods, especially for dissemination and linking with the stakeholders

# CityMove - Main objectives

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*Systems and innovative solutions for new vehicles for the delivery of goods. New technologies and vehicle concepts and transport modes will aim at efficient, safe, clean and quiet urban and night-time transport and distribution of goods.*

*Activities will focus on the development of new multi-functional vehicles for different types of freight and goods services that are effective and flexible.*

CITY MOVE aims at developing an innovative integrated vehicle solution fitting with the integrated city transport solution approach for a secure, flexible, reliable, clean, energy efficient and safe road transportation of goods across European cities, having also a significant impact on reduction of CO2 emissions and improvement in terms of safety and security.

Starting Date:

**1<sup>st</sup> January 2010**

Ending Date:

**31 December 2012**

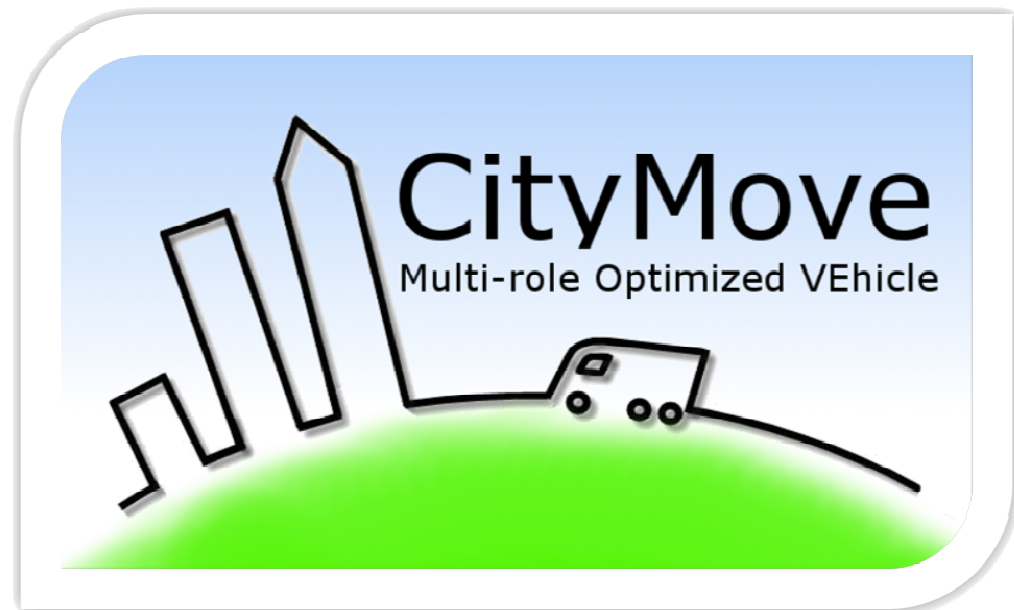
Budget Total / Funding:

**5.8 M€ / 333 M€**

## CityMove - Partnership

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- Vehicle manufacturers
  - IVECO, VOLVO, Centro Ricerche FIAT
- Suppliers
  - Continental, Plastic Omnium, ColdCar, Chereau
- Logistic operators
  - Shenker, Danone
- Research Providers
  - CNRS-Let, VTI
- Cities
  - Polis
- Urban Logistic
  - FIT Consulting



## *Main research topics*

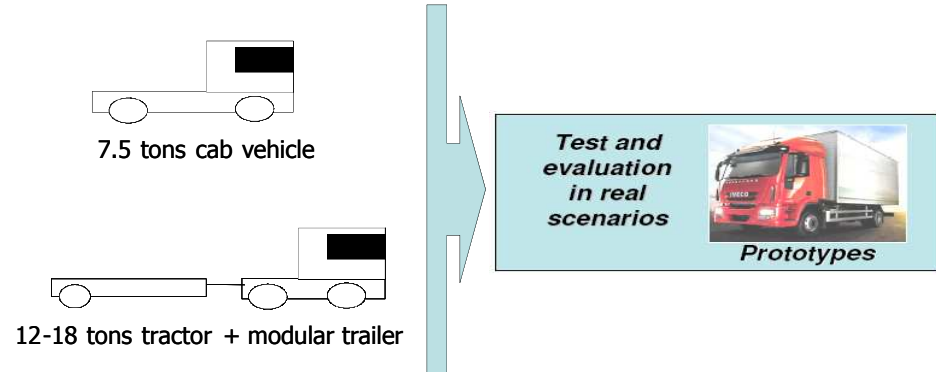
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- Efficiency
- Clean and Quiet
- Safe



# Efficiency

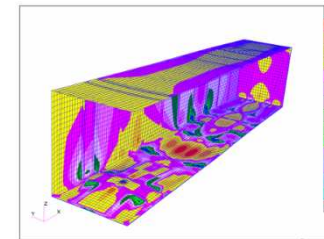
- Reduced weight (more capacity)
- Reduced dimension
- Modularity
- Integration in the logistic chain
- Load optimisation



Content	Description	
Electric Hybrid Power - Train	Electric Parallel Hybrid Power Train for ATP Vehicle (7,5 ton). Electric PTO & auxiliaries electrification will be further investigated.	
Vehicle Modularity	Better integration between Vehicle Chassis and Bodies with possibility to install different configuration on the same vehicle.	
Smart energy management	Use of electric PTO, electrification of auxiliaries. Logics to advise the operator on a ecological & economic drive behavior	
Urban Architecture	Urban targeted wheel base, narrow vehicle profile, smaller wheels	

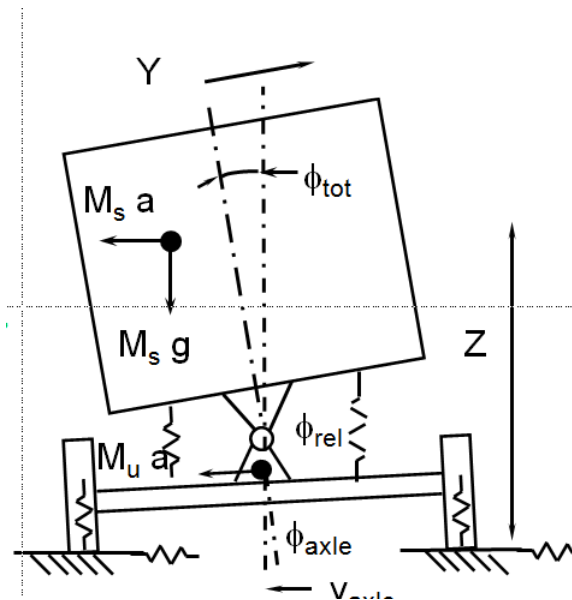
# Clean and Quiet

- Hybrid power line
- Smart energy management
- Electrical auxiliaries
- Innovative refrigerating gas
- Innovative solutions for noise reduction

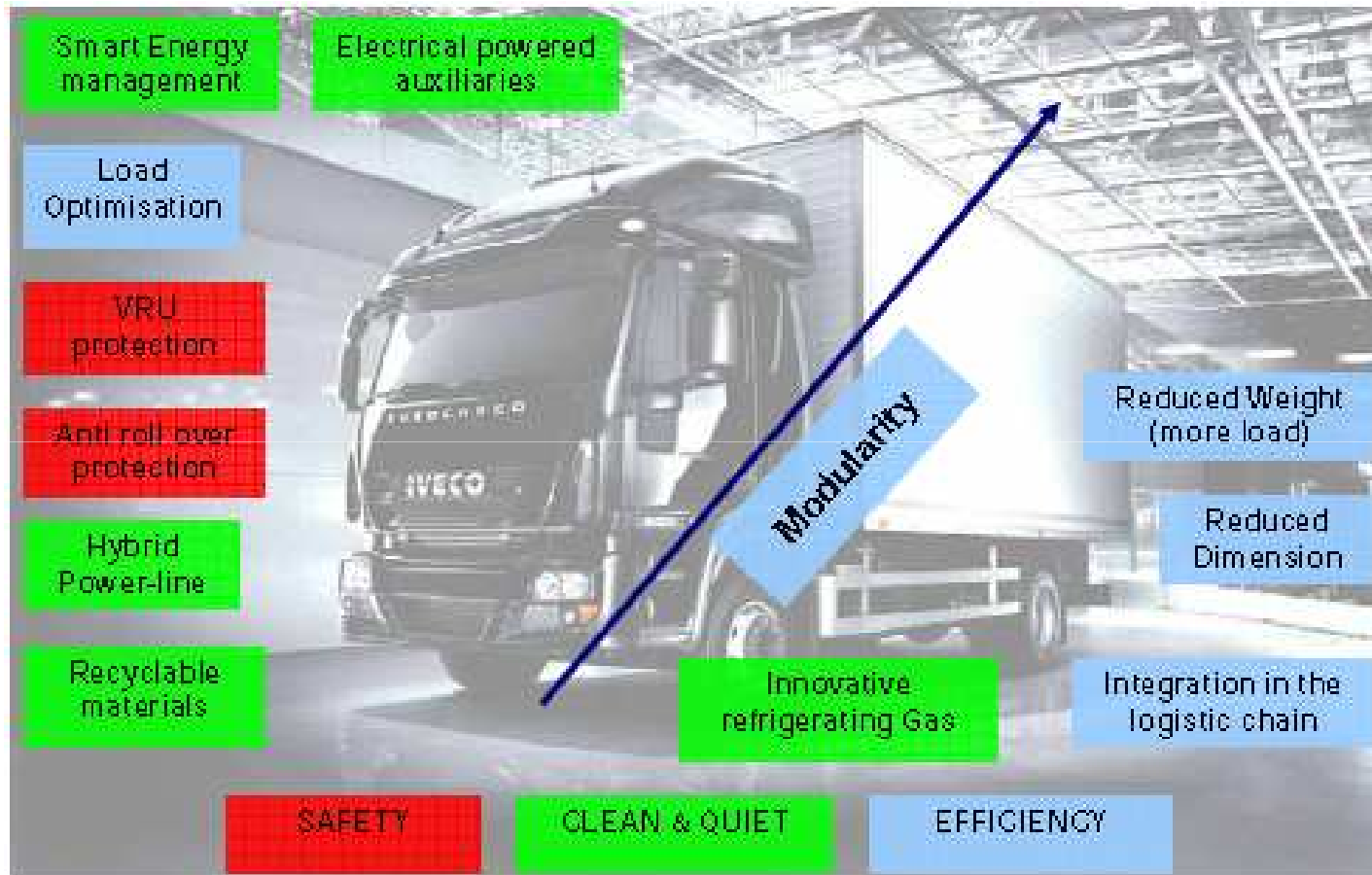


# Safe

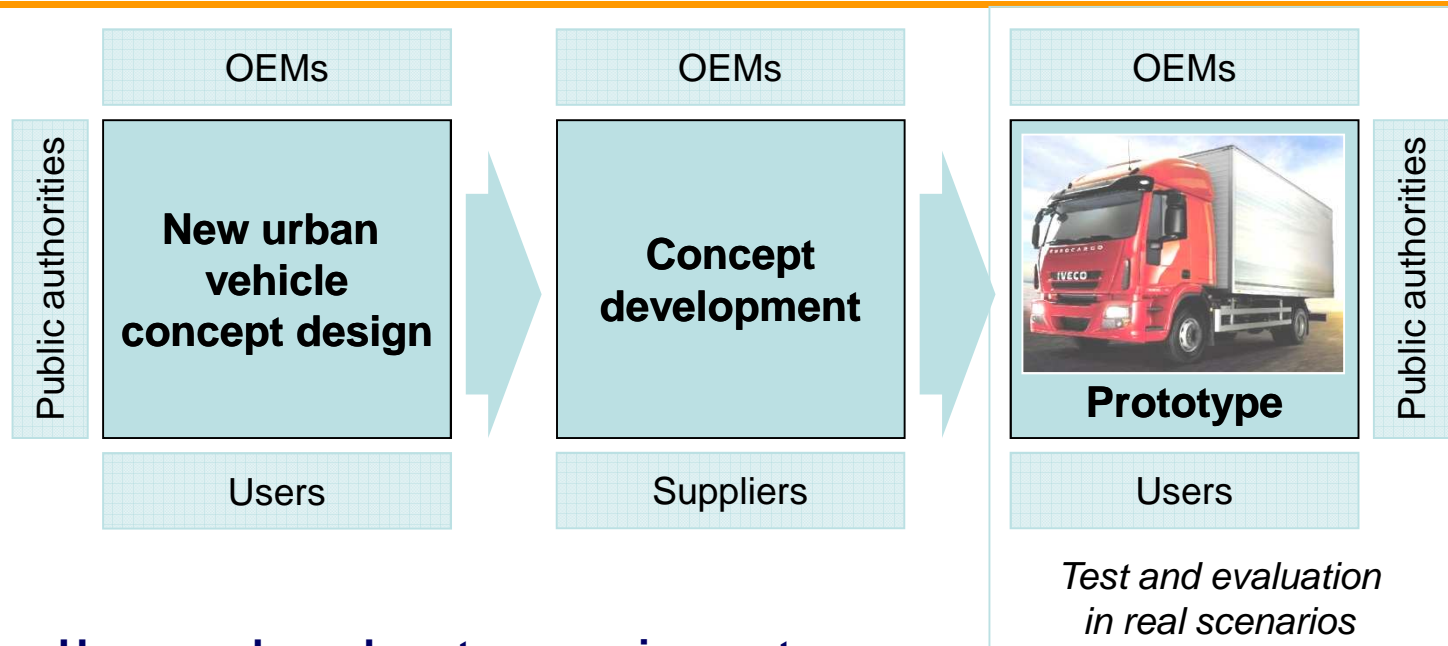
- Vulnerable road user protection
- Collision avoidance systems
- Antirollover protection



# Project concept



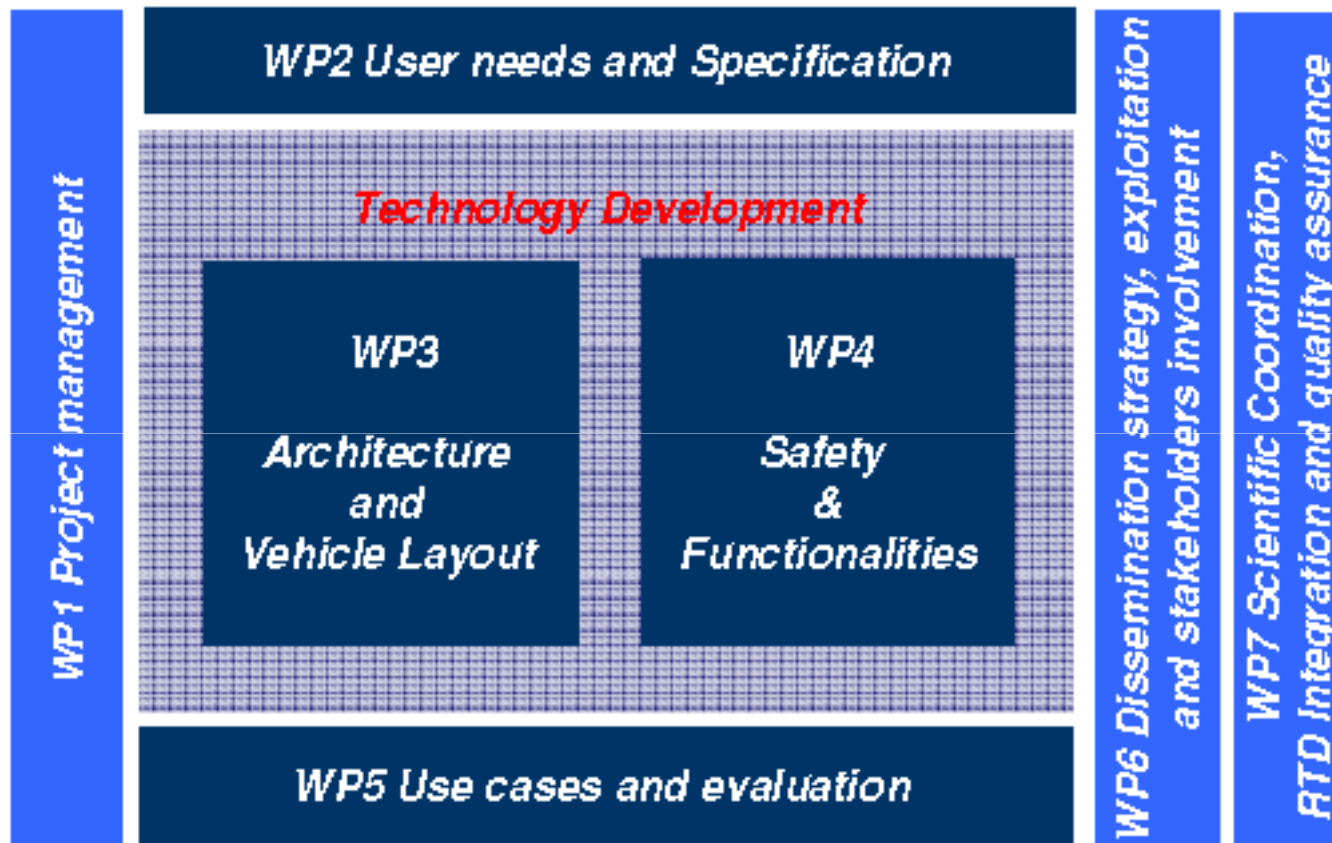
# Technical Approach



- ❑ User needs and system requirements
- ❑ System and architecture specification
- ❑ Vehicle, traffic and goods movement model
- ❑ Specification/design/development to:
  - Improve safety
  - Reduce emissions
- ❑ Two prototype vehicles
- ❑ Results of tests and impact assessment

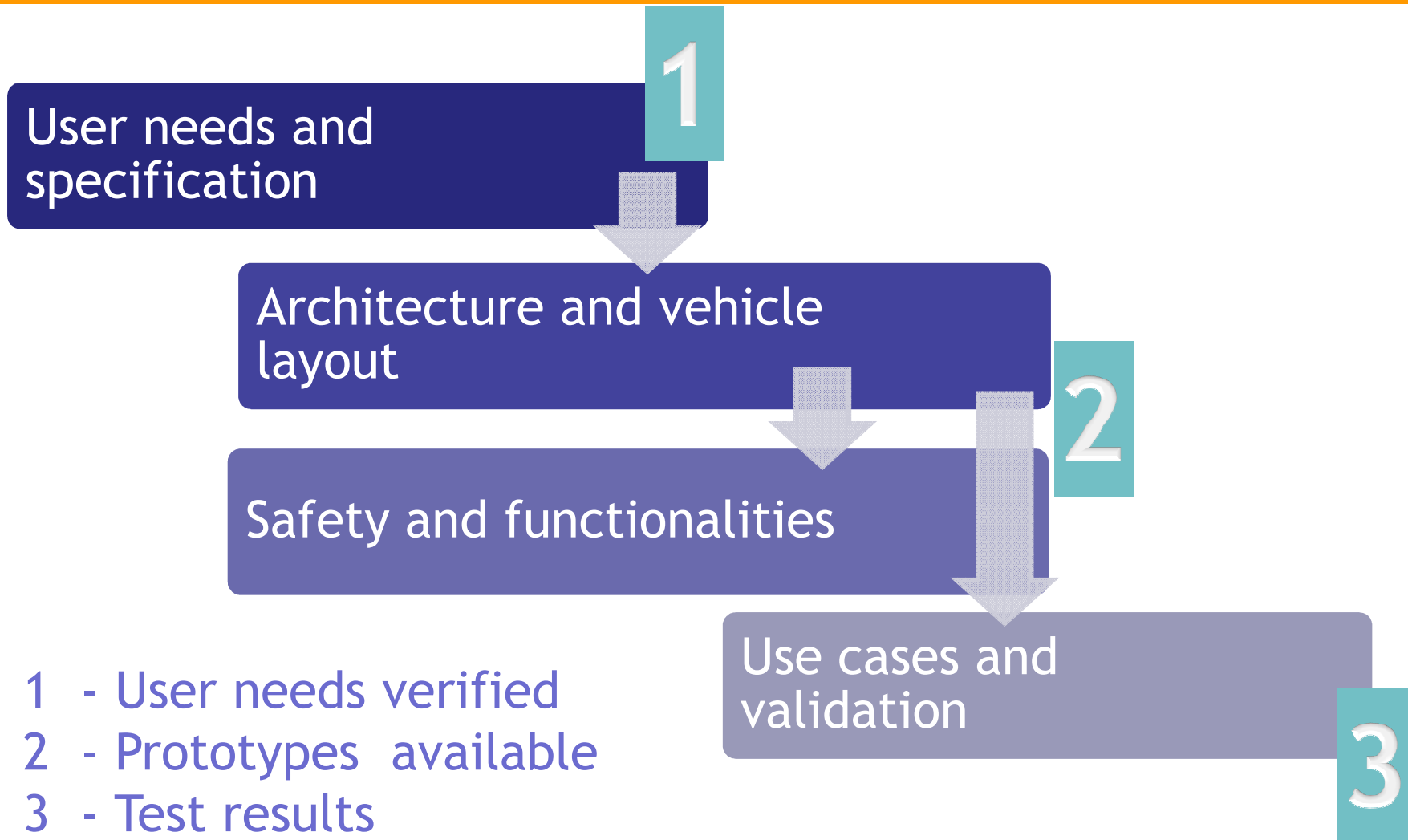
- Noise reduction
- Vehicle fuel consumption
- Energy management of auxiliaries
- Low CO2 refrigerating systems

# WP structure



# Project plan

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## Next step

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citylog

sustainability and efficiency  
of city logistics



### **CITYLOG & CityMove**

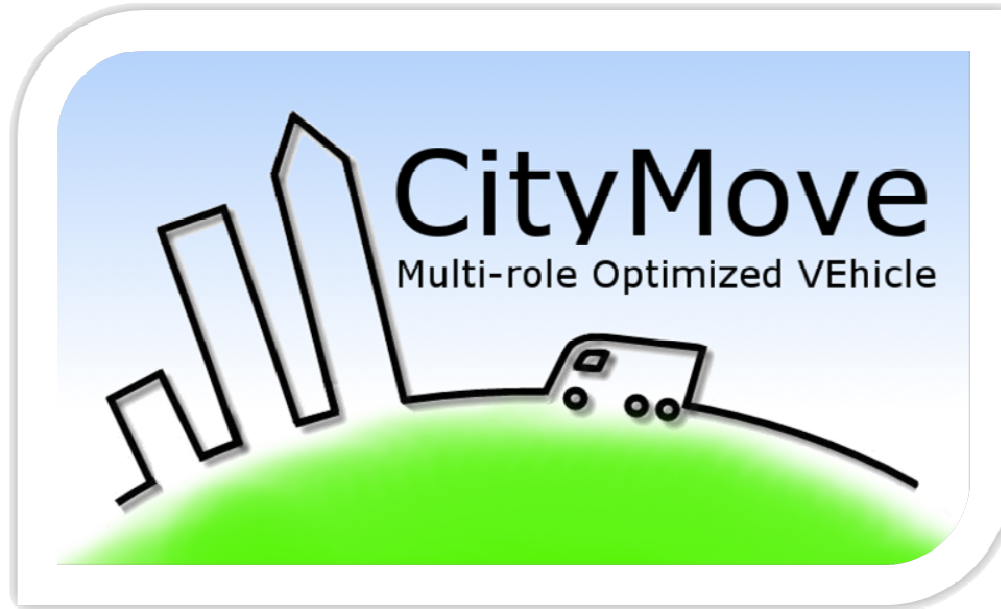
**Towards a clean, safe and sustainable city logistics**

**Joint workshop on user needs, use cases and  
systems requirements**

**Brussels, 16th of June 2010**

*Thanks!*

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