

 LYON URBAN
TRUCK & BUS

 RHÔNE-ALPES
AUTOMOTIVE CLUSTER



LYON URBAN TRUCK & BUS

Cluster supported by



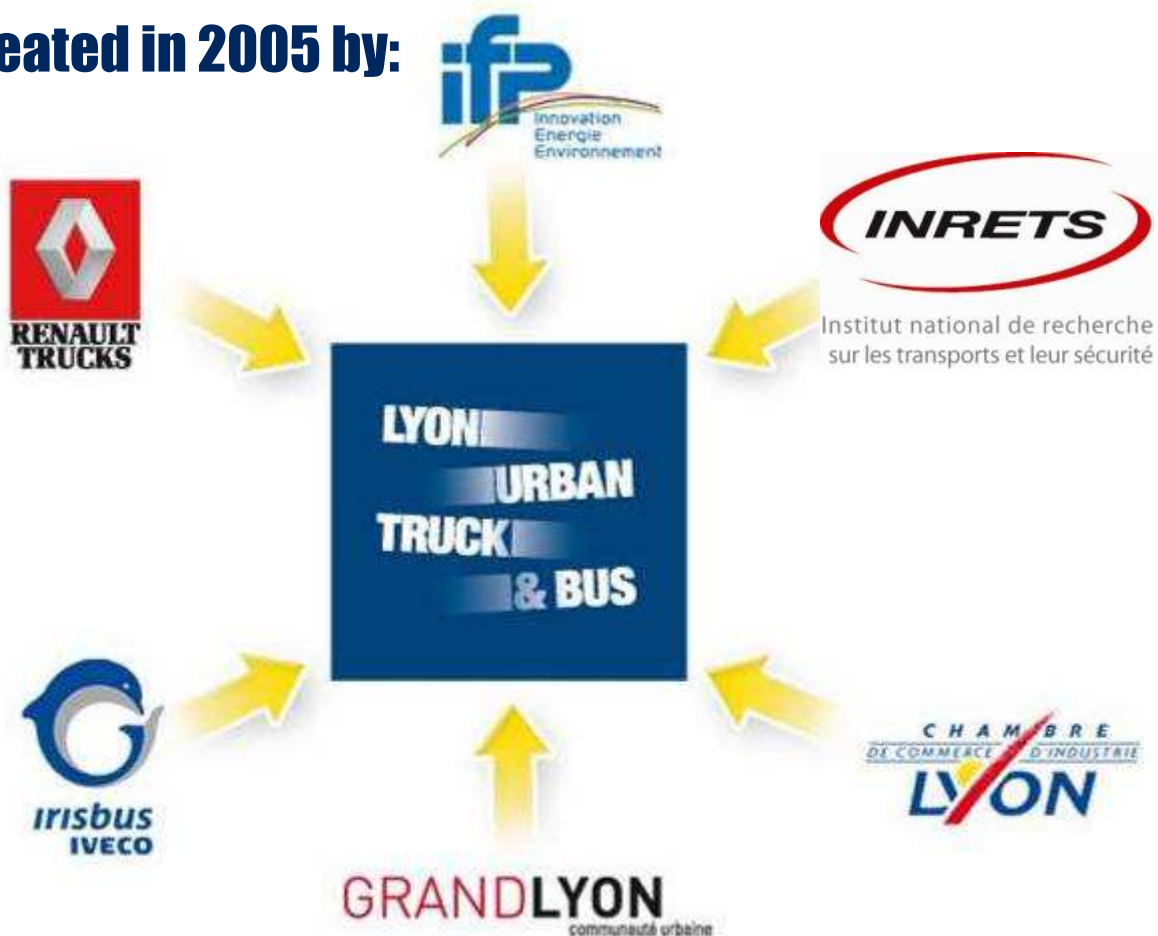
Rhône-Alpes

GRANDLYON
communauté urbaine



FOUNDING MEMBERS

Cluster created in 2005 by:





From Research and Development



To Commercial Performance

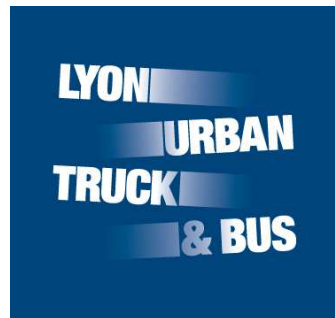




Strengthening the competitive performance of players in Rhône-Alpes automotive industry

■ Objectives:

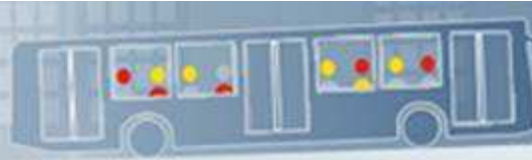
- Federate 900 companies and laboratories
- Consolidate the lead position of the Rhône-Alpes region in Automotive industry
- Boost the competitiveness of companies



The only competitiveness cluster focusing on mass transport systems for passengers and goods

■ Objectives:

- Create future urban transport systems
- Connect the worlds of research centers, industries and users
- Certify R&D projects



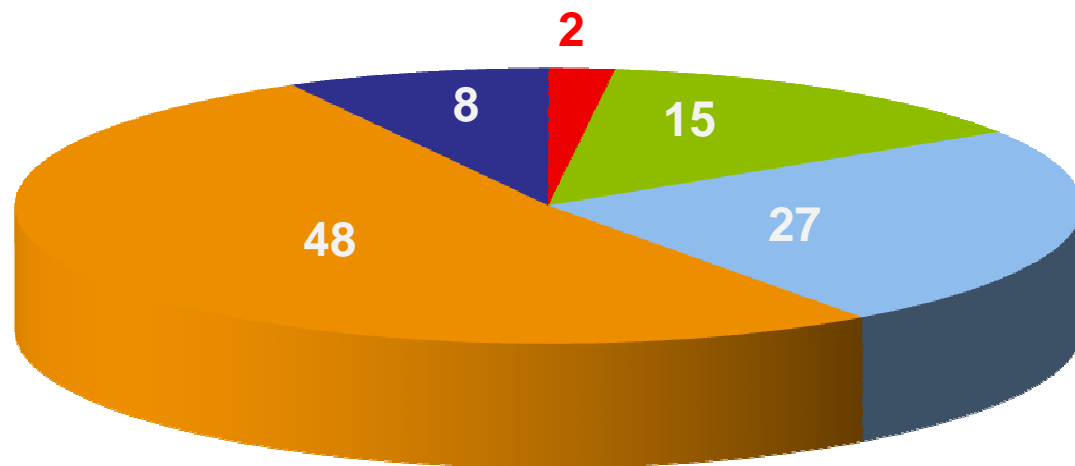
KEY NUMBERS

- **100 members**
- **80 certified projects**
- **Total cost : 121 000 K€**
- **Grant : 43 000 K€**



DISTRIBUTION OF THE NUMBER OF MEMBERS

100 members



- Public Authorities
- Scientists
- Companies
- SMEs
- Users



■ 5 Collaborative R&D programmes



- « We aim at developing silent, reliable, fuel-efficient and environmentally-friendly engines to be used in urban mass transport systems.»

**Brigitte MARTIN - IFP
Programme Director**





ENGINE & DRIVELINE





ENGINE & DRIVELINE EXAMPLE

- **Project Name :** HYBUS
- **Leader :** Iveco Irisbus
- **Partners :** ERCTEEL, LMS-Imagine, Laboratoire Ampère in collaboration with SYTRAL and KEOLIS Lyon
- **Objectives :** Evaluate high-power storage systems, such as super capacitors, for current-collecting hybrid electric vehicles such as Cristalis and Citelis (Iveco Iribus) trolleybuses. The device will handle power outages in the overhead line, then in the second phase of the project, the vehicle will operate independently over several hundred metres.
- **Project amount :** 2 M€
- **Duration :** 36 months
- **Funding :** 892 K€ DGE, Région Rhône Alpes and Conseil Général du Rhône



■ « This program aims to design solutions to be implemented on commercial vehicles and their environment in order to improve safety and security.»



**Philippe BEILLAS - INRETS
Programme Director**



INTEGRATED SAFETY AND SECURITY





INTEGRATED SAFETY AND SECURITY EXAMPLE

- **Project Name :** PRUDENT V.I.
- **Leader :** Renault Trucks
- **Partners :** INRETS, IRIBUS, Plastic Omnium AE, Segula/Eurosim, INSA
- **Objectives :** Implementation of design methodologies for commercial vehicles (trucks and coaches/buses) so as to significantly increase the protection of vulnerable users (pedestrians and cycles) involved in accidents with these vehicles.
This type of protection entails the evolution of CVs and the integration of new types of bodybuilding elements.
Societal objective: contribute to halving the number of victims (178 fatalities and 272 injured in France in 2004)
- **Project amount :** 2,4M€
- **Funding :** 969 K€ par DGE, Région Rhône Alpes, Conseil Général du Rhône and le Grand Lyon



- **« Our goals are to design and experiment innovative architectures enabling mass transport systems for passengers and goods vehicles to be modular and more attractive. »**

**Philippe GRAND - IVECO
Programme Director**





ARCHITECTURE AND COMFORT



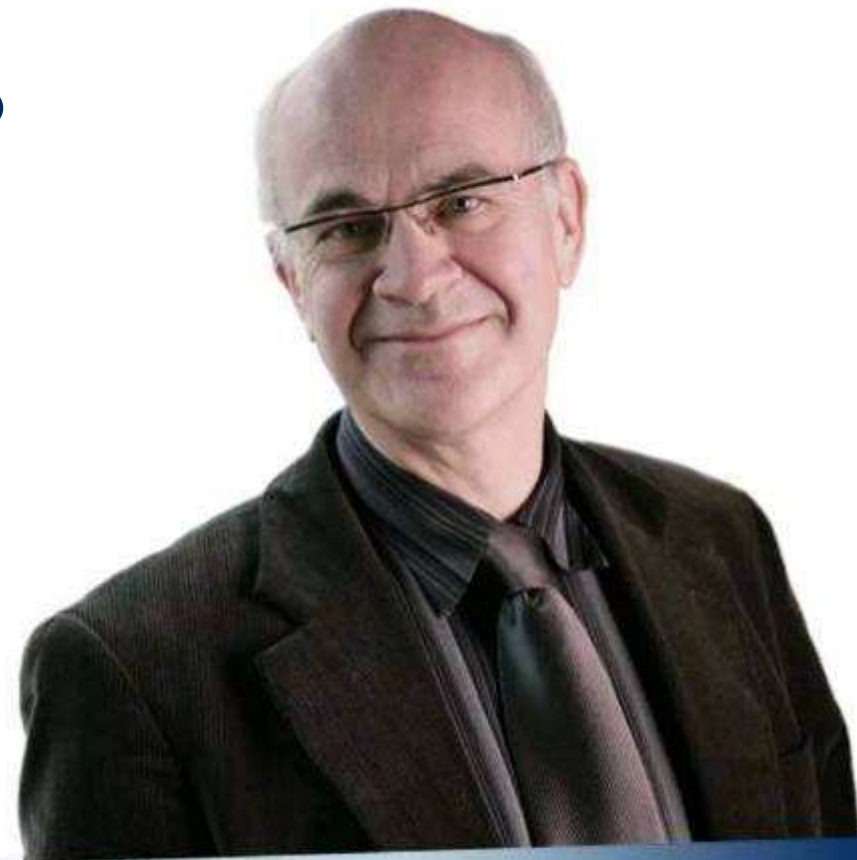


ARCHITECTURE AND COMFORT EXAMPLE

- **Project Name :** TRUE (Truck Refrigeration for Urban Environment)
- **Leader :** Renault Trucks
- **Partners :** Carrier, Marmonnier, Lamberet, Pomona, CNRS (Cethyl)
- **Objectives :** Develop an environmentally-friendly refrigerated demonstrator vehicle for urban distribution applications. Optimise the vehicle's pre-equipment and establish communication between the refrigerated section and the vehicle so as to reduce consumption (and as a result, emissions). Optimise and reduce acoustic emissions at the source
- **Project amount :** 2,6M€
- **Duration :** 2 ½ years
- **Funding :** 750 k€ by ANR



- « We investigate urban mass transport systems, to meet future urban needs. »



**Bernard FAVRE - RT
Programme Director**



TRANSPORT SYSTEM





Transport System Example

■ **Project Name :**

VIF 2 The Interactive Truck of the Future

■ **Leader :**

Renault Trucks

■ **Partners :**

ACTIA, MICHELIN, SODIT, LCPC

(Laboratoire Central des Ponts et Chaussées)

■ **Objectives :**

New information exchange technologies for freight transport enable the user to consider transportation as an interactive system providing link between :
Vehicle, road infrastructure, control centre, monitoring transport operations.

The VIF 2 project aims to :

- Study the operating principles to information exchange technologies linking vehicle and their infrastructure
- Build a demonstrator system with high interaction capabilities between: vehicle, tyres and infrastructures.
- Validate the performances obtained at different level for : improved road safety, vehicle management, environment

■ **Project amount :**

500 k€

■ **Duration :** 36 months

■ **Funding :**

100 k€



Modelling and Management of mobility

- **« We share competences to model future mobility trends of passengers and goods in urban areas.» »**

**Yves CROZET - LET
Programme Director**





Modelling and Management of mobility



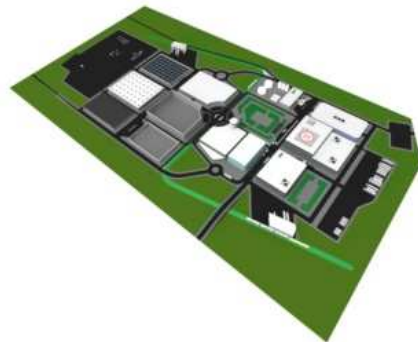


Modelling & Management of mobility EXAMPLE

- **Project Name :** MOSART (Modelling and Simulation of Accessibility to Network and Territories)
- **Leader :** Laboratoire Economie des Transports
- **Partners :** Géomod, Sytral
- **Objectives :** Creation of a geo-portal designed to manage passenger and freight mobility.
Implementation, to the scale of the Lyons urban area (296 municipalities and 3316 km²), of decision-making tools for public policies for mobility and the private options for location and route building.
- **Project amount :** 500 k€
- **Duration :** 36 months
- **Funding :** 100 k€



■ Transversal projects and programmes



www.falimc.com

■ Sharing of test resources

- The Trans Polis project, modular urban systems platform



■ Training

■ Communication



■ **« Our long-term objective is to be a European and indeed worldwide reference, from research to implementation of urban mass transport systems for passengers and goods. »**

**Eric POYETON
LUTB Chairman**

