



User needs Workshop

Focus on Architecture and Vehicle Layout

*The urban delivery vehicle session
16th June 2010*





Agenda

- Regulation
- Urban logistics
- CityMove proposal
- Questionnaire
- Questions for discussion



A need to understand, anticipate & participate in City Development



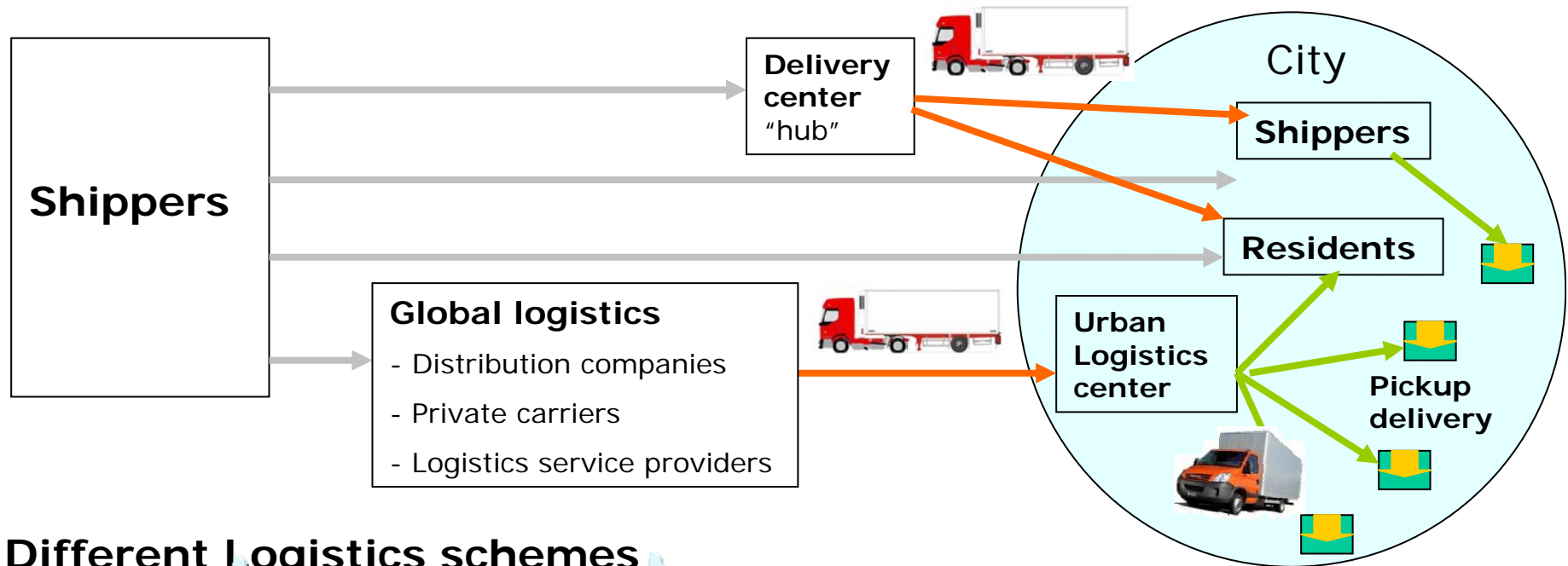
- Transport activities in urban areas regulated mainly by LOCAL rules



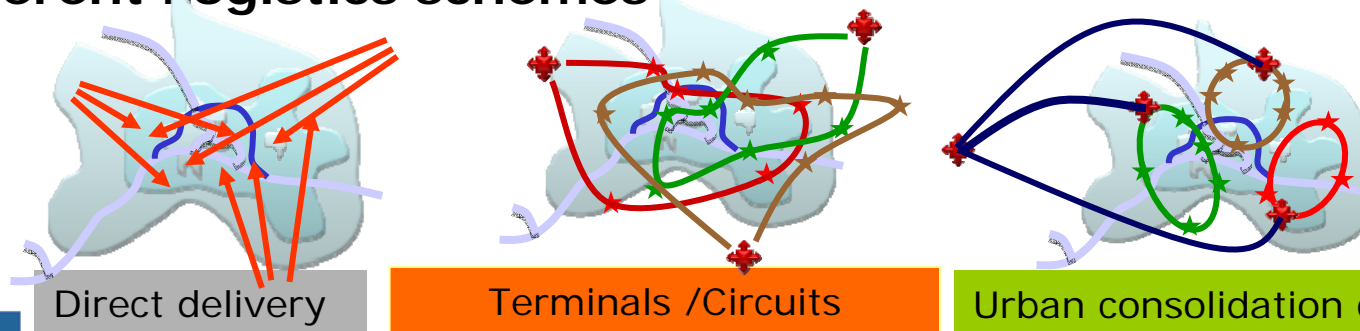
- Logistics possibilities dependant on many regulations or limitations
 - Lack of storage capacity for shops, social rules, cost of real estate,...
 - Decision centers, political bodies not at the scale of the « urban logistic map »
- Some City Planning oriented towards « truck ban »
 - A lack of harmonisation
 - Can be costly for the Society and for the main Stakeholders



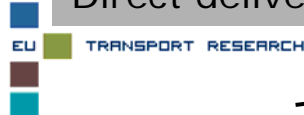
Urban Logistics



Different Logistics schemes



Last
mileage



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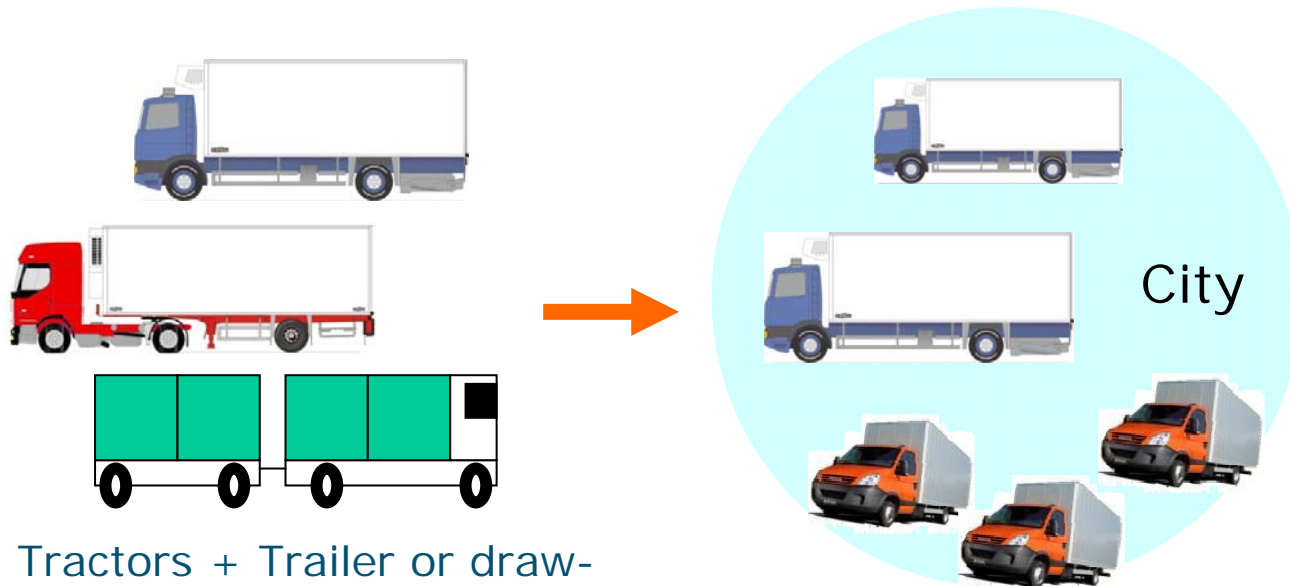


Modularity & Flexibility concepts within CityMove



Today:

- ❑ Medium VI utilisation dedicated mainly for **parcels delivery & controlled temperature**
- ❑ VI is dedicated for one usage conventional **or** conditioning temperature
- ❑ Fleet equipped by rigid boxes → opportunity to receive refrigerated unit
- ❑ Freight carriers usage depending on local regulation



Tractors + Trailer or draw-bar are used mainly for Hub delivery & inter-cities

Rigid Trucks are potentially used for goods delivery



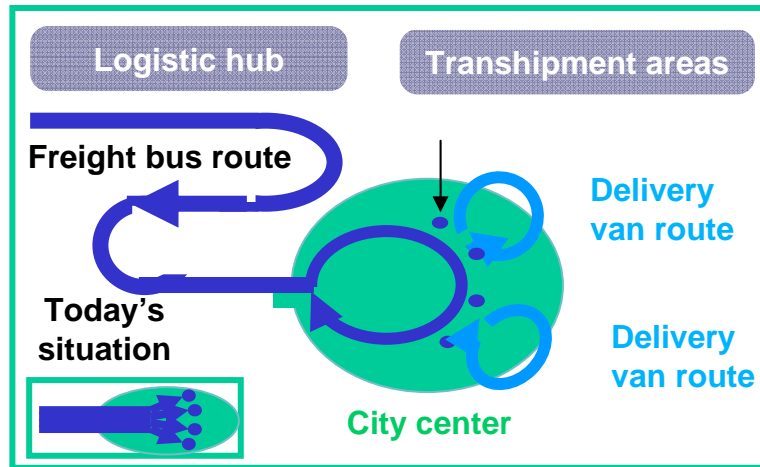
Parcels delivery
40%



Controlled temperature
30%

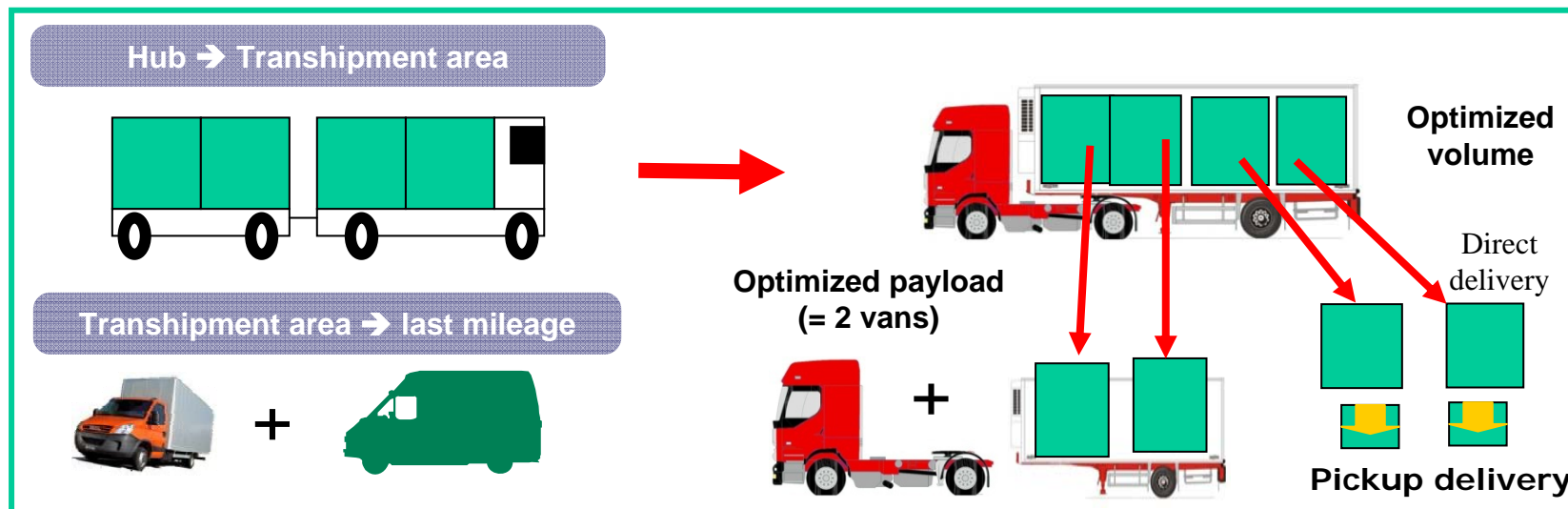


Proposed logistic model



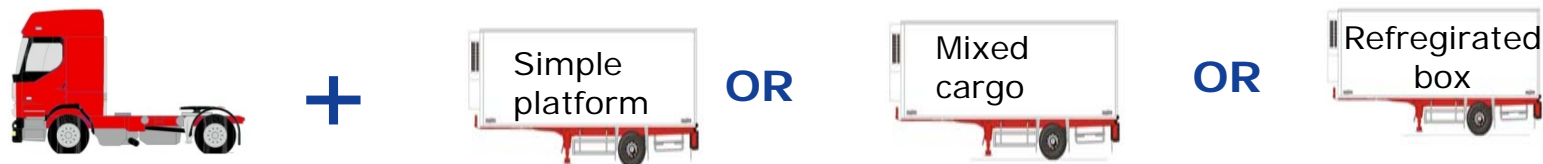
1- Freight bus concept: freight moved from hub to city center by Freight bus (several load units) and each load unit transferred to a van for the last mileage

2- Integrate load units in trailer box (Bento box)

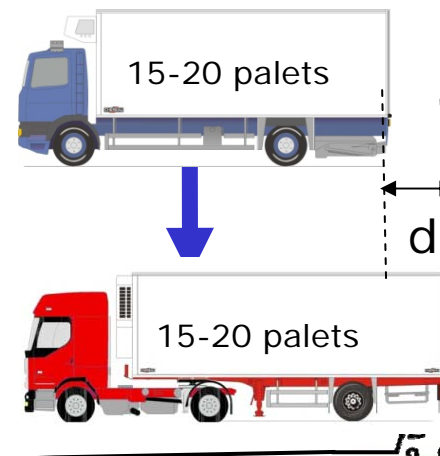
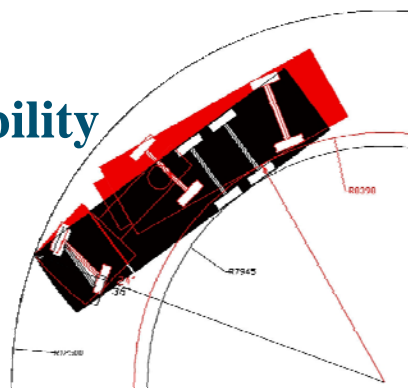


Solution chosen to address the modularity requirement

- **Missions flexibility**
Tractor w. different types/size of Trailers
- **Diversity (VI) → Modularity**
Different usages w. the same VI (parcels & controlled temperature)



Better manoeuvrability



Optimise VI
(same palets, total length)



Questions for Discussion

1. Which logistic cases/ user needs/ problems could this city trailer address? And which logistic cases/ user needs / problems are not addressed?

(Please mark your notes with '+' and '-' for easy recognition.)

- “shuttle transport” (*loading/unloading*). ..
- Your Picture of the future vehicle to address the modularity issue ?

2. What are the conditions to fulfill to make this solution of city trailer interesting and working ?

- Attractiveness of the city (city project to improve urban distribution ?)
- **Regulations** (time of delivery, weight, size, ...)
- **Infrastructure** (loading station, share bus/tram lane, share infrastructure)



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Questionnaire



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Stakeholders

DEMAND

SHIPPERS

- Wholesalers
- Small Retailers
- Large Chain Retailers
- Manufacturers

RESIDENTS

- City residents (Inner)
- City users (Inner)
- Shop owners not retailers
- City interest groups

PLAN & EXECUTION

FREIGHT CARRIERS

- Professional (third party)
- road transport operators
- Private carriers
- Distribution companies
- Logistics service providers
- Urban Delivery Center Managers

ADMINISTRATORS

- Local authorities
- Municipalities
- Chamber of Commerce
- Infrastructure Managers
- Policy makers
- Urban planners
- Associations of municipalities

TRUCK/VEHICLE MANUFACTURERS

- Truck & trailer manufacturers and sub suppliers
- Assemblers, Producer, Sellers, Designers



Freight Carriers

Investigation Areas/Domains



- **Vehicle concepts:**
 - Lifetime and durability,
 - Performance, mobility,
 - Consumption, pollution reduction
 - Safety and security
 - Maintenance and repair support
- **Comfort and cleanness**
 - (inside / outside cab for the holder & driver)
- **Vehicle utilization**
 - (load factor, operation time)
- **Service reliability** (delivery time)
- **Flexibility & trip rationalisation**
- **Accessibility** to vehicles, services & infrastructures
- **Environmental issues**
 - (social & regulation)
- **Urban development**, Modal integration and quality of life
- **Quality feeling/perception** (delivery services) / customers
- **Economic & operational issues**
 - Cost effectiveness / efficiency / cost reduction)
- **Pricing and commercial policies**

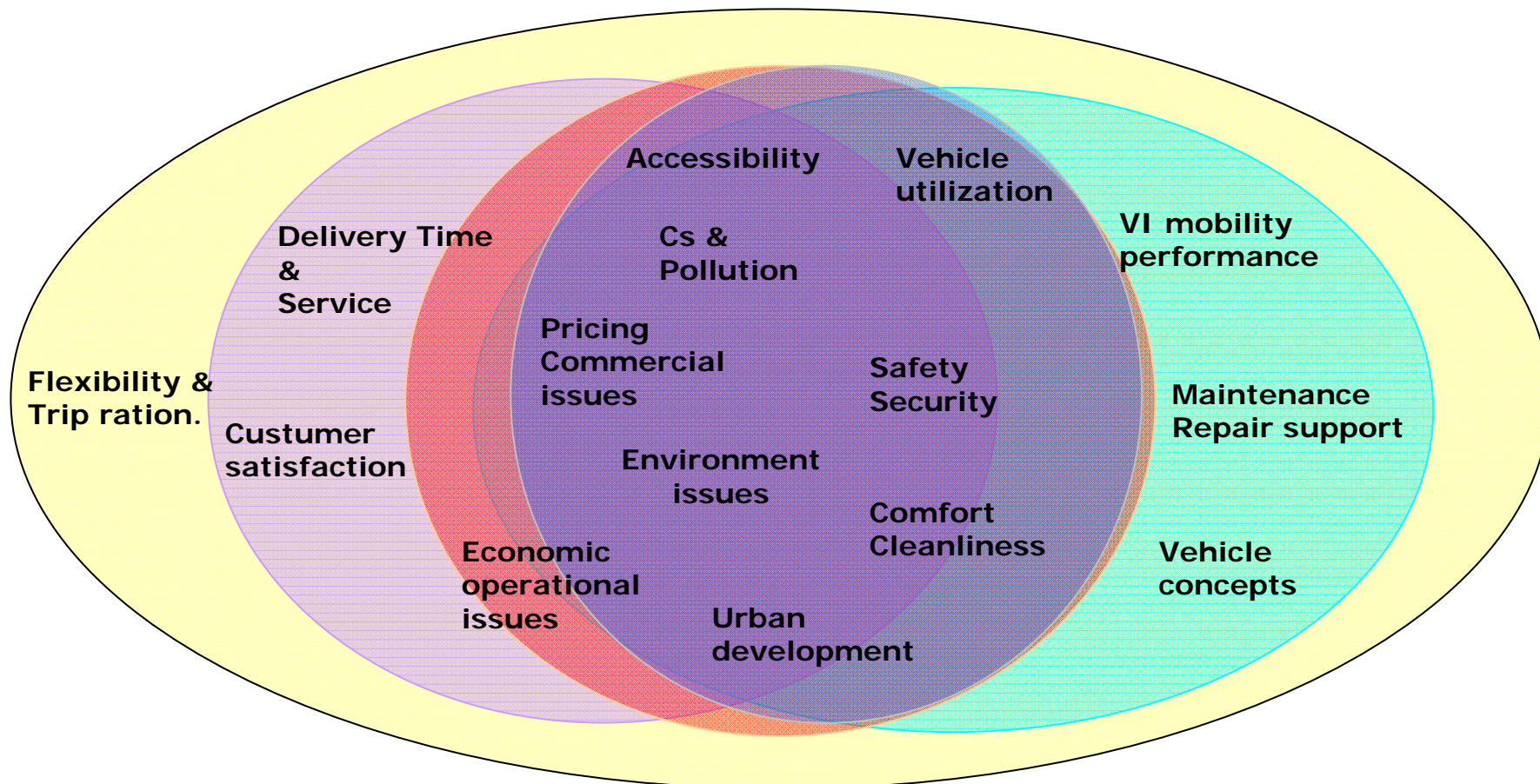


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Stakeholders – Domains



Residents **Administrators** **Shippers** **Trucks Manufacturers** **Freight Carriers**





Thank you for your attention!

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